



Humboldt-Kolleg

**SLAVERY, FREEDOM,
SUSTAINABILITY
AND PANDEMIC:**

DEBATES ON BRAZILIAN AND AFRICAN
SOCIETIES IN HISTORICAL AND
CONTEMPORARY PERSPECTIVE

Org. Roberto Hofmeister Pich

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The conference of the Brazilian Humboldt-Club, in November 16-19, 2021, in the city of Porto Alegre / RS, Brazil, with the title / theme "Slavery, Freedom, Sustainability, and Pandemic: Debates on Brazilian and African Societies in Historical and Contemporary Perspective", has the intention of approximating Humboldt Fellows from Latin America (especially from Brazil) and Africa, focusing on topics that historically connect the two continents and, in several aspects, also shape Latin American and African societies in current times. Until today, Brazilian and African Humboldt fellows do not frequently work in well-established and well-structured ways. The proposed conference is an opportunity to get acquaintance with current research conducted by Humboldtians from both continents and to conceive common projects for the years to come.

*"***Without doubt, slavery is the greatest of all the evils wich have afflicted mankind".*

Alexander von Humboldt, Political Essay on the Island of Cuba.



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Porto Alegre – Brazil, November 16-19, 2021

Roberto Hofmeister Pich (Org.)

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Rodrigo Souza (Universidade Federal do Rio de Janeiro, Rio de Janeiro / RJ, Brazil) / *Continuous-Flow Approach Towards Synthetic CBD*

Paulo Cruz Terra (Universidade Federal Fluminense, Niterói / RJ, Brazil) / *Current Trends in Slavery Studies in Brazil*

Omar Ribeiro Thomaz (Universidade Estadual de Campinas, Campinas / SP, Brazil) / *O pensamento haitiano em três tempos: a liberdade como vocação / Haitian Thought in Three Moments: Freedom as Vocation*

Gonzalo Humberto Tinajeros Arce (Universidade de Brasília, Brasília / DF, Brazil) / *Indian Law: Modalities of Freedom and Modalities of Serfdom to the Indigenous People in Charcas-Bolivia. Inquire to the Philosophical and Political Arguments of Juan de Solórzano Pereira (1575–1655)*

Ana Carolina Torquato Pinto da Silva (Universidade Federal do Paraná, Curitiba / PR, Brazil) / *Scientific Racism in 19th and Early 20th Century Brazilian Literature: Humans Portrayed as Animals*

Emmanuel I. Unuabonah (African Center of Excellence for Water and Environmental Research, Redeemer's University, Ede, Odun State – Nigeria) / *Developing Low Cost Functional Material for Photocatalytic Degradation of Emerging Pollutants in Water*

William Gomes Vale (Universidade Estadual do Ceará, Laboratório de Fisiologia e Controle da Reprodução, Programa de Pós-Graduação em Ciências Veterinárias, Fortaleza / CE, Brasil) / *The Possibilities of Sustained Integration between Brazil, Germany, and Africa in the Animal Milk Production Systems*

Raquel Riciati do Couto Vilela (Universidade de São Paulo, São Paulo / SP, Brazil) / *Luminescent Materials Based on Coordination Compounds: New Chemical Designs for Sustainable Energy Conversion*

Ibrahim Maina Waziri (Centre for Trans-Saharan Studies, University of Maiduguri, Nigeria) / *Tripartite Sustainable International Relations and the Fight against Dependency, Pandemic, and Slavery in the 21st Century: Analyses of the Brazil, German and Nigerian Cooperation*

Ronja Wollnik (Leuphana University of Lüneburg, Germany) / *Constructing a Circular Bioeconomy: The Role of Green and Sustainable Analytical Chemistry in the Context of Food-Processing Waste*

Michael Max Paul Zeuske (University of Cologne and Bonn Center for Dependency and Slavery Studies, Germany) / *Slavery: A History of Humankind – A History of Latin America*

Vânia G. Zuin Zeidler (Universidade Federal de São Carlos, São Carlos / SP, Brazil; Leuphana University of Lüneburg, Germany) / *Towards More Sustainable Curricula*

**"SLAVERY, FREEDOM, SUSTAINABILITY, AND PANDEMIC: DEBATES ON BRAZILIAN
AND AFRICAN SOCIETIES IN HISTORICAL AND CONTEMPORARY PERSPECTIVE"**

Porto Alegre – Brazil, November 16-19, 2021

Roberto Hofmeister Pich (Org.)

Program of the Humboldt-Kolleg

Tuesday, 11.16.2021

(For remote participation in all activities of the day, please use the following link:
<https://pucrs.zoom.us/j/98465666287?pwd=MjJSWDIBTHJmSVNhbTBBSnB5dE5sZz09>

Meeting ID: 984 6566 6287

Passcode: 333444)

08:00 Bus Transfer to the University Campus (PUCRS)

09:00 Welcome Addresses (Building 9, Theater)

Prof. Dr. Dr. Evilázio Borges Teixeira (President of the PUCRS)

Dr. Milan Andreas Simandl (Consul General of the Federal Republic of Germany in Porto Alegre, Brazil)

Dr. Stefan Traumann (Ambassador of the Federal Republic of Germany in Luanda, Angola)

Dr. Daniela Kneissl (Department Sponsorship and Network of the Alexander von Humboldt Foundation, Division Africa, Middle East, Head of Division)

Dr. Frauke Bode (Department Sponsorship and Network of the Alexander von Humboldt Foundation, Division Central and South America, Head of Division)

Prof. Dr. Roberto Hofmeister Pich (PUCRS)

09:30 Opening Lecture

Prof. Dr. Jacob Olupona (Harvard University, Department of African and African American Studies)

Philosophical and Religious Dimensions of Slavery in Africa and of Transatlantic Slave Trade

Chair: Prof. Dr. Roberto Hofmeister Pich (PUCRS)

10:45 Coffee Break

11:15 Discussion

12:00 Lunch Time

14:00 Lecture and Discussion (Building 9, Theater)

Prof. Dr. Michael Max Paul Zeuske (University of Cologne and Bonn Center for Dependency and Slavery Studies)

Slavery: A History of Humankind – A History of Latin America

Chair: Prof. Dr. Paulo Astor Soethe (Universidade Federal do Paraná)

15:00 – 16:30 Lectures by Humboldtians (Building 9, Theater) – Slavery as a Theme of Brazilian and African Literature and of Intercultural Studies

Chair: Prof. Dr. Juliana Pasquarelli Perez (Universidade de São Paulo)

[15:00] Prof. Dr. Félix Ayoh'Omidiri (Obafemi Awolowo University, Ile-Ife / Nigeria): *Slavery, Resistance and the Yoruba Identity in Afro-Latin-America.*

[15:30] Prof. Dr. Gilbert Dotsé Yigbe (Université de Lomé, Lomé / Togo): *Das Erzählen über Sklaven in Afrika und in den transatlantischen Beziehungen: historische Realitäten und literarische Mythen / Telling about Slaves in Africa and in Transatlantic Relations: Historical Realities and Literary Myths.*

[16:00] Prof. Dr. João Roberto Gomes de Faria (Universidade de São Paulo): *Theater and Slavery in Colonial Brazil*

16:30 Coffee Break

17:00 – 18:00 Lectures and Discussion: Presentation of the Sponsorship Programs of the Alexander von Humboldt Foundation

Dr. Frauke Bode (Department Sponsorship and Network of the Alexander von Humboldt Foundation, Division Central and South America, Head of Division)

Prof. Dr. Andréa Simone Stucchi de Camargo (Instituto de Física de São Carlos/ Universidade de São Paulo, Ambassador Scientist of the Alexander von Humboldt Foundation)

19:30 Dinner

Wednesday, 11.17.2021

(For remote participation in all activities of the day, please use the following link:
<https://pucrs.zoom.us/j/98465666287?pwd=MjJSWDIBTHJmSVNhbTBBSnB5dE5sZz09>

Meeting ID: 984 6566 6287

Passcode: 333444)

08:00 Bus Transfer to the University Campus (PUCRS)

09:00 – 10:30 Lectures and Discussion (Building 9, Theater)

[09:00] Prof. Dr. Tâmis Parron (Universidade Federal Fluminense)

Between the Local and the Universal: Slavery and Political Representation in Age of Revolutions

[09:45] Prof. Dr. Marçal de Menezes Paredes (PUCRS)

In the Searching of "New Brazils"? Race Relations and Politics in the Portuguese Modern Colonialism in Angola and Mozambique (19th-20th Centuries)

Chair: Prof. Dr. Emil Albert Sobottka (PUCRS)

10:30 Coffee Break

11:00 Lecture and Discussion

Prof. Dr. Matthias Kaufmann (Martin-Luther-University Halle-Wittenberg)

What Do Freedom and Liberty Mean, and Which Kind of Freedom/Liberty Are Worth Fighting for?

Chair: Prof. Dr. Draiton Gonzaga de Souza (PUCRS)

12:00 Lunch Time

13:30 Lectures and Discussion – Slavery Studies in Germany (Building 9, Theater)

Prof. Dr. Stephan Conermann (University of Bonn and Spokesperson of Excellence Cluster "Beyond Slavery and Freedom" and of the Bonn Center for Dependency and Slavery Studies (BCDSS)): *The Bonn Center for Dependency and Slavery Studies (BCDSS): What Is It All About?*

Prof. Dr. Karoline Noack (University of Bonn and Spokesperson of the BCDSS): *On the Research on Slavery and Other Forms of Strong Asymmetrical Dependencies in Latin American Societies in the BCDSS*

Prof. Dr. Paulo Cruz Terra (Universidade Federal Fluminense, Humboldt-Fellow and former researcher at the BCDSS): *Current Trends in Slavery Studies in Brazil*

15:30 Coffee Break

16:00 – 18:00 Lectures by Humboldtians (Building 9, Theater) – Slavery and Emancipation as Themes of Brazilian and African Post-Colonial Studies, Social Political Theories and Normative Sciences

Chair: Prof. Dr. Nythamar de Oliveira Jr. (PUCRS)

[16:00] Prof. Dr. Constant Kpao Saré (Université d'Adomey-Calavi (DEG/UAC), Cotonou / Bénin; Lehrstuhl für Interkulturelle Germanistik, Universität Bayreuth, Deutschland): *Postkoloniale Relektüre der transatlantischen Sklaverei zwischen Bagatellisierung, Gedächtniskonkurrenz, Verantwortung der afrikanischen Eliten und die Fixierung der Instabilität brasilianischer Kulturen in ethnographischen Schriften über Dahomey / Postcolonial Rereading of Transatlantic Slavery between Trivialization, Memory Competition, Responsibility of the African Elites and the Fixation of the Instability of Brazilian Cultures in Ethnographic Writings about Dahomey*

[16:30] Prof. Dr. Roberto Hofmeister Pich (PUCRS): *Philosophy and Black Slavery: Some Notes on the Historical Emergence of an Ideology*

[17:00] Prof. Dr. Ibrahim Maina Waziri (Centre for Trans-Saharan Studies, University of Maiduguri, Nigeria), *Tripartite Sustainable International Relations and the Fight against Dependency, Pandemic and Slavery in the 21st Century: Analyses of Brazil, Germany and Nigeria Cooperation*

[17:30] Prof. Dr. Paulo Astor Soethe (Universidade Federal do Paraná): *Alexander von Humboldt's Ideas about Slavery and Social Inequality: Echoes in Brazil*

18:30 – 19:45 Workshop Humboldt Club Brazil: Humboldt Fellows on the Job Market in Brazil, coordinated by Carolina Viviane Nunes (German Chancellor Fellow) and Alice Moraes Amorim (German Chancellor Fellow)

20:00 Dinner

Thursday, 11.18.2021

(For remote participation in all activities of the day until 15:30, please use the following link:

<https://pucrs.zoom.us/j/98465666287?pwd=MjJSWDIBTHJmSVNhbTBBSnB5dE5sZz09>

Meeting ID: 984 6566 6287

Passcode: 333444)

08:00 Bus Transfer to the University Campus (PUCRS)

09:00 Lecture and Discussion (Building 9, Theater)

Prof. Dr. Dr. Vânia G. Zuin Zeidler (Universidade Federal de São Carlos, São Carlos / SP, Brazil; Leuphana University of Lüneburg, Germany), *Towards More Sustainable Curricula*

Chair: Prof. Dr. Roberto Hofmeister Pich (PUCRS)

10:00 Coffee Break

10:30 – 12:00 Lectures by Humboldtians (Building 9, Theater) – Sustainability and Pandemic: On the Relationship between Sciences and Society (1)

Chair: Prof. Dr. Andréa Simone Stucchi de Camargo (IFSC-USP)

[10:30] Prof. Dr. Mirabbos Hojamberdiev (Technical University of Berlin, Germany), *My Unprecedented Scientific Journey to the African Continent*

[11:00] Prof. Dr. Marilia Almeida-Trapp (King Abdullah University of Science and Technology, Saudi Arabia), *Back to the Roots: Chemistry and Ecology Helping a Fast-Growing World*

[11:30] Prof. Dr. Marian NKansah (Kwame Nkrumah University of Science and Technology // Kumasi, Ashanti – Ghana), *A Citizen's Perspective on Ghana's Response to Covid-19: The Highs and the Lows*

12:00 Lunch Time

13:30 – 15:30 Lectures by Humboldtians (Building 9, Theater) – Sustainability and Pandemic: On the Relationship between Sciences and Society (2)

Chair: Prof. Dr. Dr. Vânia G. Zuin Zeidler (Universidade Federal de São Carlos, São Carlos / SP, Brazil; Leuphana University of Lüneburg, Germany)

[13:30] Prof. Dr. Amal Amin Ibrahim Shendi Nada (Polymers-Pigments Department, Chemical Industries Division, National Research Center // Dokki, Cairo – Egypt), *The Role of Science Diplomacy to Achieve the Sustainable Development in the Age of Pandemic*

[14:00] Prof. Dr. Liliana Mammino (University of Venda, South Africa), *Science Education as the Key Factor Determining the Relationships Between Sciences and Society*

[14:30] Prof. Dr. Andréa Simone Stucchi de Camargo (IFSC-USP), *Host-Guest Hybrid Materials for Energy Generation and Conversion*

[15:00] Prof. Dr. Emmanuel I. Unuabonah (African Center of Excellence for Water and Environmental Research, Redeemer's University, Ede, Odun State – Nigeria), *Developing Low Cost Functional Material for Photocatalytic Degradation of Emerging Pollutants in Water*

15:30 Coffee Break

16:00 – 19:20 Lectures by Humboldtians and "Nachwuchswissenschaftler" (Building 9)

SESSION 1: *Theology, History, Social Sciences, and Pandemic* (Building 9, Theater)

Chair: Prof. Dr. Marçal de Menezes Paredes

<https://pucrs.zoom.us/j/98465666287?pwd=MjJSWDIBTHJmSVNhbTBBSnB5dE5sZz09>

Meeting ID: 984 6566 6287

Passcode: 333444

[16:00] Prof. Dr. Rudolf von Sinner (Pontifícia Universidade Católica do Paraná), *Populism and "The People": Precarities and Polarizations. A Theological Perspective*

[16:30] Prof. Dr. Sérgio Ricardo da Mata (Universidade Federal de Ouro Preto), *Uma ética negativa do trabalho: a escravidão na obra de Max Weber / A Negative Ethics of Labor: Slavery in Max Weber's Work*

[17:00] Prof. Dr. Luiz Sérgio Duarte Silva (Universidade Federal de Goiás), *Teoria da historiografia da escravidão / A Theory of the Historiography of Slavery*

[17:30 – 17:50: 20 Minutes Break]

[17:50] Prof. Dr. Omar Ribeiro Thomaz (Universidade Estadual de Campinas), *O pensamento haitiano em três tempos: a liberdade como vocação / Haitian Thought in Three Moments: Freedom as Vocation*

[18:20] Prof. Dr. Fábio Vergara Cerqueira (Universidade Federal de Pelotas), *Epidemias na história: recorrências e singularidades / Epidemics in History: Resurgences and Singularities*

[18:50] Prof. Dr. Thiago Lima Nicodemo (Universidade Estadual de Campinas), *Coronarquivo: a preservação da memória digital da pandemia / Coronarchive: The Preservation of the Digital Memory of Pandemic*

[Speakers will participate in person, but Session 1 will be live-streamed too]

SESSION 2: Languages and Literature between Brazil and Africa: Perspectives and Dialogues (coordinated by Prof. Dr. Juliana Pasquarelli Perez) (Building 9, Ground Floor, Room 101)

Chair: Prof. Dr. Juliana Pasquarelli Perez (Universidade de São Paulo)

Please, use the following link:

<https://pucrs.zoom.us/j/99150756810?pwd=c1dwNEtDbXNMNTI5MjQvR3BnM0puZz09>

[16:00] Prof. Dr. Fernanda Boarin Boechat (Universidade Federal do Pará), *Überlebende Erzählungen: ZwischenWeltenSchreiben von Machado de Assis und Conceição Evaristo*

[16:30] Dr. Ana Carolina Torquato Pinto da Silva (Curitiba), *Scientific Racism in 19th and Early 20th Century Brazilian Literature: Humans Portrayed as Animals*

[17:00] Prof. Dr. Daniel Martineschen (Universidade Federal de Santa Catarina), *Project "Catrumano": Report on an On-Going Research on the Applications of Paired Translation as Training and Work Method for Translators*

[17:30 – 17:50: 20 Minutes Break]

[17:50] Prof. Dr. Giovanna Lorena Chaves Ribeiro (digitALE / Universidade Federal do Paraná; Universidade Federal Fluminense), *Deutsch online und ohne Grenzen, Deutsch für die Länder portugiesischer Sprache*

[Speakers will participate in person, but Session 2 will be run online too]

SESSION 3: Languages and Literature between Brazil and Africa: Perspectives and Opportunities (coordinated by Prof. Dr. Paulo Astor Soethe) (Building 9, 2nd Floor, Room 208) // Session will be run in German

Chair: Prof. Dr. Paulo Astor Soethe (Universidade Federal do Paraná)

Please, use the following link:

<https://us02web.zoom.us/j/81955072511>

Meeting-ID: 819 5507 2511

[16:00] Dr. Stefan Traumann (German Embassy in Angola, Luanda)

[16:30] Prof. Dr. Hans-Joachim Althaus und Maxi Neidhardt (DUO/g.a.s.t., Bochum)

[Session 3 will be run online only; those who participate in person in the Meeting and want to visit Session 3 can use Room 208 and follow it on an online (computer) basis]

SESSION 4: *Freedom, Slavery, and the Reception of the Classics in Brazil* (coordinated by Prof. Dr. Isabella Tardin Cardoso) (Building 9, Ground Floor, Room 102)

Chair: Dr. Jair Inácio Tauchen (PUCRS)

Please, use the following link (Zoom Platform):

<https://pucrs.zoom.us/j/92018866882?pwd=VE1Sczk2Wis3bzVwVHJ0VzVtZ0k1Zz09>

[16:00] Prof. Dr. Isabella Tardin Cardoso (Universidade Estadual de Campinas), *Liberdade, escravidão e a recepção dos clássicos no Brasil / Freedom, Slavery, and the Reception of the Classics in Brazil: Some Initial Epistemological Considerations*

[16:30] PhD Student Ana Azevedo Bezerra Felício (Universidade Estadual de Campinas), *Sobre a liberdade: leituras comparadas de Hegel e Sêneca no discurso pós-colonial/On Freedom: Comparative Readings of Hegel and Seneca in Postcolonial Discourse*

[17:00] PhD Student Vanessa Fernandes (Universidade Estadual de Campinas), *Entre a escravidão e a arte da sobrevivência: recepções plautinas nas comédias de Ariano Suassuna / Between Slavery and the Art of Survival: Plautian Receptions in Ariano Suassuna's Comedies*

[17:30 – 17:50: 20 Minutes Break]

[17:50] PhD Student Sônia Aparecida dos Santos (Universidade Estadual de Campinas), *Uma perspectiva 'marrom': Ariano Suassuna e a identidade brasileira / A 'Brown' Perspective: Ariano Suassuna and the Brazilian Identity*

[2 Speakers will participate in person; Session 4 will be run online too]

SESSION 5: *Chemistry, Materials Engineering, and Sustainability* (coordinated by Prof. Dr. Dr. Vânia G. Zuin Zeidler and Prof. Dr. Andréa Simone Stucchi de Camargo) (Building 9, 2nd Floor, Room 209)

Chairs: Prof. Dr. Dr. Vânia G. Zuin Zeidler (Universidade Federal de São Carlos, São Carlos / SP, Brazil; Leuphana University of Lüneburg, Germany) and Prof. Dr. Andréa Simone Stucchi de Camargo (IFSC-USP)

Please, use the following link:

<https://pucrs.zoom.us/j/5774855718?pwd=SUh2eHlzTIRqVHJ0VzVtZ0k1Zz09>

[16:00] Master Student (M.Sc. (Sustainability Science)) Ronja Wollnik (Leuphana University of Lüneburg, Germany), *Constructing a Circular Bioeconomy: The Role of Green and Sustainable Analytical Chemistry in the Context of Food-Processing Waste*

[16:30] PhD Student Mateus Logi Segatto (Universidade Federal de São Carlos), *Chemistry as a Tool for Sustainability: The Case of Agroindustrial Waste in Brazil*

[17:00] PhD Student Raquel Riciati do Couto Vilela (Universidade de São Paulo), *Luminescent Materials Based on Coordination Compounds: New Chemical Designs for Energy Conversion and Sustainability*

[17:30 – 17:50: 20 Minutes Break]

[17:50] Prof. Dr. Rodrigo Souza (Universidade Federal do Rio de Janeiro), *Continuous-Flow Approach Towards Synthetic CBD*

[Session 5 will be run online only; those who participate in person in the Meeting and want to visit Session 5 can use Room 209 and follow it on an online (computer) basis]

19:30 Assembly of the Humboldt-Club Brazil (Building 9, Theater)

Please, take note that a previous registration for having access to the Zoom conference (Assembly of the Humboldt-Club-Brazil) is needed; this registration has to be done until November 18th, at 12:00.

Please, use the following link:

<https://us02web.zoom.us/meeting/register/tZ0oc-qrpz0oGNEGMjM-KkCsB1zbOK2REA9K>

21:00 Dinner

Friday, 11.19.2021

08:00 Bus Transfer to the University Campus (PUCRS)

09:00 – 12:30 Lectures by Humboldtians and “Nachwuchswissenschaftler” (Building 9)

SESSION 6: *Slavery and Philosophy* (coordinated by Prof. Dr. Roberto Hofmeister Pich) (Building 9, Theater)

Chair: Prof. Dr. Roberto Hofmeister Pich (PUCRS)

Please use the following link:

<https://pucrs.zoom.us/j/98465666287?pwd=MjJSWDIBTHJmSVNhbTBBSnB5dE5sZz09>

Meeting ID: 984 6566 6287

Passcode: 333444

[09:00] Prof. Dr. Luis Rosenfield (Pontifícia Universidade Católica do Rio Grande do Sul), *Positivismos, evolucionismos, cientificismos. A ascensão da Geração de 1870 e os seus paradoxos / Positivismos, Evolutionisms, Scientisms. The Rise of the 1870 Generation and Its Paradoxes*

[09:30] Prof. Dr. Gonzalo Humberto Tinajeros Arce (Universidade de Brasília, Brasília / DF, Brazil), *Indian Law: Modalities of Freedom and Modalities of Serfdom to the Indigenous People in Charcas, Bolivia. An Inquiry into the Philosophical and Political Arguments of Juan de Solórzano Pereira (1575–1655)*

[10:00] Prof. Dr. Márcio Paulo Cenci (Universidade Franciscana), *Direito de reparação e escravidão: notas para um debate contemporâneo / Right of Reparation and Enslavement: Notes Towards a Contemporary Debate*

[10:30 – 11:00] Coffee Break

[11:00] PhD Student Fabiano Gläser dos Santos (Pontifícia Universidade Católica do Rio Grande do Sul), *Teologia e escravidão: perspectiva histórica da escravidão no Brasil e suas justificativas teológicas / Theology and Slavery: Historical Perspective of Slavery in Brazil and Its Theological Justifications*

[11:30] Prof. Dr. Nythamar de Oliveira (Pontifícia Universidade Católica do Rio Grande do Sul) and Prof. Dr. Maria Angélica Zubarán (Universidade Luterana do Brasil), *Recasting Afro-Brazilian Diasporic Identity in Postcolonial Perspectives*

[12:00] Prof. Dr. Luiz Gustavo da Cunha de Souza (Universidade Federal de Santa Catarina), *Slavery as a Thorn in Liberalism. Political Ideas and Ideology in 19th Century Brazil*

[4 Speakers will participate in person; Session 6 will be live-streamed too]

SESSION 7: *Physics and Biotechnology* (Building 9, Ground Floor, Room 101)

Chair: Dr. Evandro Pontel (PUCRS)

Please, use the following link:

<https://pucrs.zoom.us/j/5774855718?pwd=SUh2eHlzTIRqVHJVb0pDbE1YWS95Zz09>

[09:00] Prof. Dr. Carlos Frederico de Oliveira Graeff (Universidade Estadual Paulista), *From Nature to Organic (Bio)Electronics: A Review on Melanin-Inspired Materials*

[09:30] Prof. Dr. Paulo Fernando Papaleo Fichtner (Universidade Federal do Rio Grande do Sul), *Probing the Size-Dependent Properties of Nano-Objects via Electron Irradiation*

[10:00] Prof. Dr. Leticia F. Palhares (Departamento de Física Teórica, Universidade do Estado do Rio de Janeiro) *What Is Inside the Proton? From Confinement to Confinement of Quarks and Gluons*

[10:30 – 11:00] Coffee Break

[11:00] Prof. Dr. William Gomes Vale (Universidade Estadual do Ceará), *Possibilities of Sustained Integration between Brazil, Germany, and Africa in the Animal Milk Production Systems // Möglichkeiten der nachhaltigen Integration zwischen Brasilien, Deutschland und Afrika in die Tiermilchproduktionssysteme*

[11:30] Prof. Dr. Sebastião Tavares Rolim Filho (Universidade Federal Rural da Amazônia) *Biotechnologia da reprodução animal: uma importante ferramenta para o melhoramento genético dos animais domésticos / Biotechnology of Animal Reproduction: An Important Tool for the Genetic Improvement of Domestic Animals*

[3 Speakers will participate in person; Session 7 will be run online too]

SESSION 8: *Theoretical Philosophy* (Building 9, Ground Floor, Room 102)

Chair: Prof. Dr. Paulo Astor Soethe (Universidade Federal do Paraná)

Please, use the following link:

<https://us02web.zoom.us/j/84503836198>

Meeting-ID: 845 0383 6198

[09:00] PhD Student Guido Rey Alt (Stockholm University; University of Cologne), *John Mair's Logical Theory and its Influence on Early Modern Philosophy*

[09:30] Prof. Dr. Luis Rosa (University of Cologne), *The Rationality of Suspended Judgment*

[10:00] Prof. Dr. Walter Carnielli (Universidade Estadual de Campinas), *Problemas filosóficos da Inteligência Artificial / Philosophical Problems of Artificial Intelligence*

[10:30 – 11:00] Coffee Break

[11:00] Prof. Dr. Jair Lopes Barboza (Universidade Federal de Santa Catarina), *Sustentabilidade: um bom argumento em favor da natureza ou uma falácia? / Sustainability: A Good Argument in favor of Nature or a Fallacy?*

[11:30] Prof. Dr. André Luiz de Almeida Lisboa Neiva (Research Scholar at Purdue University, USA; Instituto Federal Sul-Rio-Grandense, Pelotas / RS, Brazil), *Pascal's Wager and Decision-Making with Imprecise Probabilities*

[2 Speakers will participate in person; Session 8 will be run online too]

SESSION 9: *Issues in the Life Sciences* (Building 9, 2nd Floor, Room 208)

Chair: Dr. Jair Inácio Tauchen (PUCRS)

Please, use the following link (Zoom Platform):

<https://pucrs.zoom.us/j/92018866882?pwd=VE1Sczk2Wis3bzVwVHJ0VzVtZ0k1Zz09>

[09:00] Prof. Dr. Mônica Santos de Freitas (Universidade Federal do Rio de Janeiro), *The Impact of Structural Biology in Life Science*

[09:30] Dr. Dinarte Neto Moreira-Ferreira (Universidade Federal do Rio de Janeiro), *ATP Provoked Plasma Membrane Permeabilization for Propidium Dyes in a P2X7 Independent Pathway on HEK292T Cells*

[10:00] Prof. Dr. Simone Nunes Brandão (UESC, Bahia), *Mini-máquinas do tempo: microfósseis, a história da Terra e as mudanças climáticas / Mini-Time Machines: Microfossils, the History of the Earth and the Climate Change*

[10:30 – 11:00] Coffee Break

[11:00] PhD. Student Vatsi Meneghel Danilevicz and Christiana Cabicieri Profice (Universidade Estadual de Santa Cruz, Programa de Pós-Graduação em Desenvolvimento e Meio Ambiente), *Devires Tupinambá: o direito à terra e à biodiversidade / Becoming Tupinambá: The Right to Land and Biodiversity*

[2 Speakers will participate in person; Session 9 will be run online too]

SESSION 10: *Climate, Environment, and Sustainability* (Building 9, 2nd Floor, Room 209)

Chair: Dr. Nuno Pereira Castanheira (PUCRS)

Please, use the following link:

<https://pucrs.zoom.us/j/99150756810?pwd=c1dwNEtDbXNMNTI5MjQvR3BnM0puZz09>

[09:00] Prof. Dr. Peter Hackspacher (Universidade Estadual de São Paulo), *Pesquisas geológicas no Atlântico Sul: estado da arte e perspectivas / Geological Research on The South Atlantic: State of Art and Perspectives.*

[09:30] Prof. Dr. Carlos Alberto Martínez-Huitile (Universidade Federal do Rio Grande do Norte), *Opportunities and Challenges of Water Treatment Technologies Integrated with Renewable Energies at the Water-Food-Energy Nexus*

[10:00] Prof. Dr. Ana Paula Bortoleto (Universidade Estadual de Campinas), *O consumo e a questão ambiental / Consumption and the Environmental Issue*

[Session 10 will be run online only; those who participate in person in the Meeting and want to visit Session 10 can use Room 209 and follow it on an online (computer) basis]

12:30 Lunch Time and Farewell

Remarks on access links for those who participate remotely, on an online basis, in the Humboldt-Kolleg

(i) All activities of the Humboldt-Kolleg are scheduled according to Brazilian (Brasília / São Paulo) time.

(ii) All activities of the Humboldt-Kolleg from November 16th. (beginning at 09:00) to November 18th, at 15:30, will be live-streamed. Please, use the following link (Zoom Platform):

<https://pucrs.zoom.us/j/98465666287?pwd=MjJSWDIBTHJmSVNhbTBBSnB5dE5sZz09>

Meeting ID: 984 6566 6287

Passcode: 333444

On November 18th, Session 1 will be live-streamed. Please, use the following link (Zoom Platform):

<https://pucrs.zoom.us/j/98465666287?pwd=MjJSWDIBTHJmSVNhbTBBSnB5dE5sZz09>

Meeting ID: 984 6566 6287

Passcode: 333444

On November 19th, Session 6 will be live-streamed. Please, use the following link (Zoom Platform):

<https://pucrs.zoom.us/j/98465666287?pwd=MjJSWDIBTHJmSVNhbTBBSnB5dE5sZz09>

Meeting ID: 984 6566 6287
Passcode: 333444

Sessions 2-5 and 7-10 will be run online too. Please, use the following links (Zoom Platform):

Session 2 (11.18.2021):

<https://pucrs.zoom.us/j/99150756810?pwd=c1dwNEtDbXNMNTI5MjQvR3BnM0pu dz09>

Session 3 (11.18.2021):

<https://us02web.zoom.us/j/81955072511>

Meeting-ID: 819 5507 2511

Session 4 (11.18.2021):

<https://pucrs.zoom.us/j/92018866882?pwd=VE1Sczk2Wis3bzVwVHJ0VzVtZ0k1Zz 09>

Session 5 (11.18.2021):

<https://pucrs.zoom.us/u/aGqLyW665>

Session 7 (11.19.2021):

<https://pucrs.zoom.us/u/aGqLyW665>

Session 8 (11.19.2021):

<https://us02web.zoom.us/j/84503836198>

Meeting-ID: 845 0383 6198

Session 9 (11.19.2021):

<https://pucrs.zoom.us/j/92018866882?pwd=VE1Sczk2Wis3bzVwVHJ0VzVtZ0k1Zz 09>

Session 10 (11.19.2021):

<https://pucrs.zoom.us/j/99150756810?pwd=c1dwNEtDbXNMNTI5MjQvR3BnM0pu dz09>

Concept of the Conference

The conference of the Brazilian Humboldt-Club, in November 16-19, 2021, in the city of Porto Alegre / RS, Brazil, with the title / theme "Slavery, Freedom, Sustainability, and Pandemic: Debates on Brazilian and African Societies in Historical and Contemporary Perspective", has the intention of approximating Humboldt Fellows from Latin America (especially from Brazil) and Africa, focusing on topics that historically connect the two continents and, in several aspects, also shape Latin American and African societies in current times. Until today, Brazilian and African Humboldt fellows do not frequently work in well-established and well-structured ways. The proposed conference is an opportunity to get acquaintance with current research conducted by fellows from both continents and to conceive common projects for the years to come.

In that sense, Humboldt fellows from different fields in the Humanities – philosophy, history, theology, social sciences, literature, etc. – were invited to participate and discuss themes related to "slavery" and "freedom", sharing aspects of their research and opening possibilities for common projects and future cooperation. From the beginning of the 16th century to the end of the 19th century – lastly in Cuba (1886) and in Brazil (1888) –, Latin American countries were economically based on a slavery system that almost completely depended on transatlantic slave trade from Africa to the Americas. Both Latin American (especially Brazilian) societies and Atlantic African countries have faced common challenges: hierarchical societies, slavery, campaigns for abolitionism, emancipation, and post-colonial challenges to development and construction of identities and organization of work, inclusion, and equality. The question of how the past characterized by slavery system was surpassed and, at any rate, shaped in comparable ways both continents needs to be dealt with in comparative perspective. The Humboldt-Kolleg here presented is an opportunity to fill up the gap in common research on social and political histories in Brazil and in African countries.

Moreover, with the themes "sustainability and pandemics" Humboldt fellows were also invited to discuss current issues related to environmental policies, the role of sciences in society in our times, the contribution of natural sciences to social and

human development, as well as the challenges that the covid-19 pandemic brought both to Latin American and African countries. It seems to be an obvious fact that in Brazilian and African societies the role of scientific knowledge in social and political life is not an obvious thing – the phenomena of “obscurantism” and “negationism” or systematic denial with regard to the (positive) effects of social distancing and vaccination and the most obvious (devastating) facts of virus pandemic seem to be a proof of the unclear role played by scientific knowledge and worldview in shaping sociopolitical life. How can these phenomena be understood? What are the most urgent challenges to the contribution of natural sciences to social development in Brazil and in Africa? These are issues that the conference would like to address.

For both major areas of our conference – (a) “Slavery and Freedom” and (b) “Sustainability and Pandemic” – the organizers counted with the participation of German scholars and especially with the presentation of an Excellence Cluster (“Beyond Slavery and Freedom”, Bonn Center for Dependency and Slavery Studies at the University of Bonn) that currently is in a leading position, in Germany, in furthering research in the first area mentioned above.

The conference shall happen in a mixed, hybrid, form: partially in person, partially on digital platform. Due to international travel restrictions because of the pandemic and also in agreement with the policies of the Alexander von Humboldt Foundation for international meetings in this year (2021), it was assumed that participants from countries other than Brazil itself would not receive any financial support for coming to Porto Alegre / Brazil. The lectures by external participants – particularly from Germany and Africa – should be given on a digital platform (Zoom), provided by the Pontifical Catholic University of Rio Grande do Sul, the campus of which is the venue of the conference.

As an academic result of this Humboldt-Kolleg in November 2021, the edition of a printed volume containing all key-conferences and all lectures is planned, to appear in an internationally renowned publisher.

With my best wishes – and also on behalf of the Humboldt-Club Brazil –,

Roberto Hofmeister Pich

A handwritten signature in blue ink, consisting of a large, stylized 'R' followed by 'Hofmeister Pich' in a cursive script.

*Full Professor of the
Graduate Program in Philosophy and the
Graduate Program in Theology at the
Pontifical Catholic University of Rio Grande do Sul
Humboldt Fellow
Fulbright Fellow.*

Authors and Abstracts

Marilia Almeida-Trapp (King Abdullah University of Science and Technology, Saudi Arabia) / *Back to the Roots: Chemistry and Ecology Helping a Fast-Growing World*

Climate change, conflicts, and economic slowdowns have been listed as the main challenges in keeping food security worldwide. These challenges have grown with COVID-19, which is likely to prevent ending world hunger and malnutrition by 2030. Achieving and maintaining food security worldwide requires multidisciplinary efforts, including political policies, investments, agricultural and scientific developments, among others.

The green revolution (development of breeding lines, fertilization, use of pesticides) played a vital role towards food security during several decades by increasing crop yield. However, it also significantly impacted the environment, creating a deficit in agro-diversity and wild biodiversity, reducing the production of several crops (i.e., nutritious grain legumes), depletion of soil nutrients, and pesticide seepage onto surrounding soil, and in some cases, deforestation.

In this talk, I will present some strategies for how chemistry and ecology can increase food production and quality, especially for people living in areas affected by extreme climates. I will focus on how microbes (fungi and bacteria) can help plants survive biotic and abiotic stresses and how much they can impact food production in a fast-changing environment.

Guido Rey Alt (Stockholm University, Sweden) / *John Mair's Logical Theory and its Influence on Early Modern Philosophy*

An important task of historians of philosophy is filling gaps in our present knowledge of otherwise underrepresented figures, philosophical arguments, and circles outside of the canonical stories. In this respect, the history of sixteenth century philosophy largely remains to be told. This talk briefly motivates the project of filling gaps in our understanding of the development of logic in the period, by discussing John Mair's (1467-1550) logical writings. Mair was arguably the last influential representative of

a scholastic tradition that conceived logical theory as a formal study of language. He was furthermore confronted with the humanist project of the Renaissance which proposed radically different perspectives on the methods of philosophy. His writings reflect that characteristic tension of sixteenth century philosophy, and, I shall argue, provide hints to understand lines of influence into mainstream early modern approaches to language and logic.

Amal Nada Amin Ibrahim Shendi (Polymers-Pigments Department, Chemical Industries Division, National Research Center // Dokki, Cairo – Egypt) / *The Role of Science Diplomacy to Achieve the Sustainable Development in the Age of Pandemic*

Science diplomacy is a relatively new term for old actions to highlight the role and the action of science on the globe. Science diplomacy has several aspects and actions including efforts done by international organizations which support the principle that global cooperation is a must. Sustainable development goals (SDGs) are considered as one of the visible and famous examples of science diplomacy actions. Surprisingly, SDGs themselves represent the strongest evidence that global cooperation now is a global need which is mainly supported upon COVID-19 global pandemic where the global communities including policy makers, stakeholders and the public discover that we need to cooperate more for the sake of humankind raising the value of science and scientific cooperation in all aspects of life.

Félix Ayoh'Omidire (Obafemi Awolowo University, Ile-Ife / Nigeria) / *Slavery, Resistance and the Yoruba Identity in Afro-Latin-America*

This presentation intends to beam the searchlight once again on the connections between Slavery and the construction of identity in selected societies of Latin-America and the Caribbean, namely Brazil and Cuba. The period selected for the study is the late 18th to mid-20th centuries. The interest of the paper is to see how the constraints of slavery and the different modalities of organized resistance by enslaved populations have led to the reinvention and reinforcement of African ethnic and cultural identities. The research corpus will focus on the Yoruba an example of a

Trans-Atlantic ethnic group. A people known diversely in Brazil as the nagô, in Cuba as the *lucumí* and in Trinidad as the *yarriba*. The methodology is to identify selected actors within the Yoruba population in the regions under study in order to analyze their agency in the construction of a trans-Atlantic identity imputed to the Yoruba in the course of the past three centuries.

Jair Lopes Barboza (Universidade Federal de Santa Catarina, Florianópolis / SC, Brazil) / *Sustainability: A Good Argument in Favor of Nature or a Fallacy?*

My exposition deals with the issue of sustainability as a fallacy, in the sense that it operates a rationalization of the use of nature, that is, the conception of nature as a means in favor of human beings, not in favor of nature itself. As a counterpoint to the sustainability argument, I propose the so-called aesthetic argument as a disinterested defense of nature, which therefore considers it as an end in itself.

Fernanda Boarin Boechat (Universidade Federal do Pará, Belém / PA, Brazil) / *Überlebende Erzählungen: ZwischenWeltenSchreiben von Machado de Assis e Conceição Evaristo*

Im vorliegenden Beitrag werden die beiden folgenden Erzählungen behandelt: „Pai contra mãe“ (1906) aus dem Werk *Relíquias da casa velha* von Machado de Assis und „Quantos filhos Natalina teve?“, 2015 in Conceição Evaristos Werk *Olhos d'água* erschienen. Anhand des Konzepts „ÜberLebenswissen“ des deutschen Romanisten Ottmar Ette (2004) werden Dimensionen der fiktionalen Welten von Machado de Assis und Evaristo untersucht, deren Werke hierbei als Bestandteil der „Literatur ohne festen Wohnsitz“ (ETTE, 2005) verstanden werden. Beide Autor*innen haben afrikanische Vorfahren in einem von der Sklaverei geprägten Brasilien, so dass ihre sozialen, historischen und geschlechtsspezifischen Positionen in ihren Standpunkten zum Ausdruck kommen. In diesem Sinne wird sowohl auf Entfernungen als auch auf Annäherungen der beiden Erzählungen in ihrem jeweiligen Kontext, die schriftstellerische Arbeit der beiden Autor*innen und deren öffentliche Wirkung eingegangen. Im Hinblick auf die literarischen Darstellungen gelebter und

erlebter Wirklichkeiten (ETTE, 2012), auch im Sinne von Conceição Evaristos Konzept „escrevivência“, wird diskutiert, wie der Gedanke des Lebens selbst, genauer gesagt die Entstehung eines Kindes, in den Texten vor dem Hintergrund der Unausweichlichkeit des Todes diskutiert wird. Zuletzt wird in diesem Beitrag ebenfalls das Überleben des literarischen Textes an sich behandelt, das mit den Mechanismen des Verlagsmarktes in bestimmten Kontexten, mit Aspekten der Redefreiheit und mit kommunikativen Strategien zusammenhängt, die historische Auslöschungen begünstigen können oder auch nicht.

Ana Paula Bortoleto (Universidade Estadual de Campinas, Campinas / SP, Brazil) / *Consumption and Environment: Some Conceptual Issues*

The consumption of goods and services is a major driver of global resource use, waste generation and associated environmental impacts. Consumption must be distinguished conceptually from other approaches to environmental problems since it is intrinsically related to the water-energy-food nexus. Achieving significant reductions in environmental pressures and impacts will require changing private and public consumption patterns, to supplement gains achieved through better technology and improved production processes.

Simone Nunes Brandão (Universidade Estadual de Santa Cruz, Programa de Pós-Graduação em Desenvolvimento e Meio Ambiente, Ilhéus / BA, Brazil) / *Mini-Time Machines: Microfossils, the History of the Earth and the Climate Change*

As the term suggests, microfossils as small-sized fossils (body length <1 mm), which are remains of single celled and multicellular organisms, such as ostracod crustaceans, plants (pollen) and fish (ichthyoliths). Because of our anthropogenic perspective, common sense generally attributes to objects or living beings importance proportional to their size (the largest, the most important). For example, it is common to consider the white sharks as the dominating organisms of the seas; or the carnivorous dinosaurs (such as *Tyrannosaurus rex*) as the dominating organisms of terrestrial ecosystems of their time (the Mesozoic Era).

However, the reality couldn't be more opposite, since small-sized organisms dominate the biosphere in most aspects, e. g., biodiversity (number of species or number of large groups of organisms), biomass (the estimated weight of living beings), abundance of individuals... In any direction we look in any time of Earth's 4,6 billion years, small-sized organisms have performed services essential to all living beings, including the large ones. Bacteria were responsible ~3 billion years ago to generate an oxygen rich atmosphere (before the atmosphere lacked oxygen and animals would never have evolved in this primitive world). Microorganisms are still producing most of the oxygen that we breathe today.

Considering that small organisms have always been the most abundant size class on Earth, it may not be strange to imagine that microfossils will also dominate the fossil record from virtually any geological period. Importantly, these tiny remains of living beings accumulate in the sediment in successive layers (the deepest the layer, the oldest it is), preserving valuable and continuous information about Earth's constantly changing climate and environments, and also about the evolution of life on our planet. Thousands or hundreds of these tiny fossils can be extracted from a few grams of sediment and these provide us with quantitative data, to understand ecological, oceanographical, geological, archaeological processes. All this together form an important pillar of climate models, which enable us human beings to predicting future impacts of climate change on ecosystems and human societies. In this talk, we will be able to see examples of this tiny magnificent "world" of the microfossils and their multitude of applications.

Andréa Simone Stucchi de Camargo (Instituto de Física São Carlos Institute of Physics, University of São Paulo, Brazil) / *Host-Guest Hybrid Materials for Energy Generation and Conversion*

Global warming concerns along with the need for energy matrix diversification have motivated the research and development of efficient, sustainable and environmentally friendly technologies for the production and consumption of energy. In the fields of illumination and displays, efficient electroluminescent devices (OLEDs and LEECs) are alternatives to conventional incandescent and fluorescent lamps.

Their low voltage, current-operation and power-consumption, in addition to long device lifetimes, high performance and low-cost maintenance can lead to environmental and economic advantages. In this sense, the heart of the matter is at the development of highly efficient multi-color emitters and new device fabrication. Organometallic compounds that can be optically and electrically excited play a fundamental role in this research. For instance, Ir(III) and Pt(II) complexes display remarkable and unique features such as high quantum yields in a variety of colors achievable by judicious molecular design. While in the active layer of OLEDs, the triplet excited states of these complexes can harvest excitons of both singlet and triplet multiplicities (in opposite to pure organic layers that harvest only singlet excitons), enhancing global efficiencies. In addition, neutral Cu(I) are calling much attention, specially those exhibiting the phenomenon of thermally activated delayed fluorescence (TADF) which are expected to be main players in the third generation of OLED devices. In a TADF emitter, the energy difference between S_1 and T_1 levels is much smaller than in typical organic molecules so that these states are strongly thermally coupled even at room temperature. As a consequence, thermal population of the singlet state from the triplet takes place due to a reverse intersystem crossing mechanism and, since this is a slow process, the S_1 -fluorescence arising from the excitons originating from the triplet state occur much slower than the fluorescence arising from the excitons created directly in the S_1 state; for this reason, the process is also referred to as "delayed fluorescence". Besides enabling close to 100% quantum efficiencies, other advantages of using Cu(I) complexes are directly related to their low cost, absence of emission self-quenching and low energy consumption. The application of these complexes as guests in inorganic or hybrid host matrices often leads to improvement of their photophysical properties by increasing molecular dispersion and protection against external quenching agents such as molecular oxygen, preventing toxic leakage which allows possible applications in bioimaging, biomarking and photocatalysis. These approaches can be creatively explored through different strategies of sol-gel chemistry. At the *Laboratory of Spectroscopy of Functional Materials* at the São Carlos Institute of Physics, University of São Paulo, we have explored the properties of Ir(III) and Cu(I) complexes in solution and solid state, as well as through the association with appropriate hosts for several

applications. In this talk we will give an overview of the most recent work with emphasis on the energy generation/conversion possibilities.

Isabella Tardin Cardoso (Universidade Estadual de Campinas, Campinas / SP, Brazil)
/ Freedom, Slavery and the Reception of the Classics in Brazil: Some Initial Epistemological Considerations

Slavery is on the agenda of Classical Studies across the world: the subject is regarded both as a legitimate research topic and as a structural factor conditioning our ability to approach the texts of the ancient world. In more recent years, in the course of my lectures on Plautus' plays, I have noticed that slavery has been attracting growing interest among Brazilian students and readers, who question the difference between the ancient condition and the colonial experience of slavery in Brazil. More importantly and irrespective of the specific subject matter at stake, I also recall the recent criticism of how Classical Philology and its associated disciplines have actively promoted the 'whitening' of ancient culture and of those cultures that were either formed by Antiquity or that somehow appropriated aspects of that historical experience. Far from coming up with a definitive answer, my purpose is merely to point out some aspects of the issues at stake and thus also make a contribution to the understanding of the reception of classics in Brazil.

Walter Carnielli (Universidade Estadual de Campinas, Campinas / SP, Brazil) / Problemas filosóficos da Inteligência Artificial / Philosophical Problems of Artificial Intelligence

Although it is becoming increasingly clear that Artificial Intelligence and philosophy of science relate to, and influence, each other, it's time to seriously worry about whether AI and machine learning could replace science as we know it today. I would like to raise some questions about the philosophical hazards behind Artificial Intelligence and machine learning, the risks of automatization of causal discovery and the possibility that synthetic intelligence may surreptitiously influence the agenda of science before we can realize it. This awareness can limit how much we

really want from superintelligence, and question whether our logical and mathematical background can cope with these challenges.

Márcio Paulo Cenci (Universidade Franciscana, Santa Maria / RS, Brazil) / *Direito de reparação e escravização: notas para um debate contemporâneo*

Em parecer de indicação n. 036/2019, a comissão de igualdade racial do Instituto dos Advogados do Brasil (IAB) estabelece aspectos jurídicos que amparam a reparação da escravidão. Neste parecer há a responsabilização das violações de direitos humanos, e inclui não somente a reparação social, mas também pecuniária de danos, além de estabelecer a necessidade de prevenção à recorrência dos crimes raciais. Esse parecer deve ser considerado em sua suma importância em termos de efetivação das condições da reparação justa. É um passo fundamental na responsabilização dos atores de crimes raciais durante mais de 350 anos. O tema da reparação da escravização injusta remete já ao século XVI com Bartolomé de Albornoz na *Arte de los Contractos* (1573) com uma ênfase no problema da ilicitude do contrato que origina o comércio de escravos até Alonso de Sandoval, na sua *De instauranda Aethiopiae Salute* (1627) que enfatiza a natureza da liberdade. O ponto de interesse deste trabalho está em analisar uma possível passagem de um modelo de reparação baseada nos contratos comerciais até um modelo de reparação na base do direito à liberdade, com certa proximidade ao que sustenta o parecer n. 036/2019 supracitado como violação dos direitos humanos, e sem incorrer na aplicação do princípio da não retroatividade da lei.

Fábio Vergara Cerqueira (Universidade Federal de Pelotas, Pelotas / RS, Brazil) / *Epidemias na história: recorrências e singularidades / Epidemics in History: Resurgences and Singularities*

As epidemias impactam a história desde os primórdios da sedentarização da humanidade, visto não haver resquício de eventos epidêmicos ao longo do Paleolítico. É o modo de vida decorrente da sedentarização e das cidades que cria as condições para os eventos epidêmicos. Deste modo, parece-nos interessante

desenvolver um olhar trans-histórico sobre as epidemias e pandemias, na medida em que nos permite observar recorrências e singularidades. Há questões transversais que se repetem. A história da peste é cruzada pela história dos conflitos militares, mas também dos amores, afinal, guerra e sexo foram dois fatores propulsores de epidemias. A história da peste está atravessada pela riqueza e pela pobreza, afinal, os contextos de maior pujança comercial e interconexão de regiões distantes foram o contexto ideal para a propagação de epidemias, mas as vulnerabilidades sociais criaram sempre cenários mais catastróficos para que essas se tornassem avassaladoras. Sempre houve as formas de negacionismo, fossem elas de natureza política, intelectual ou religiosa. As epidemias acabam colocando a prova a virtude dos governantes: sobre essa questão, sempre houve aqueles que encararam o desafio necessário para dar o melhor de si em prol do combate à doença, e sempre houve aqueles fugiram à sua responsabilidade moral de preservar a vida de sua população. Sempre houve as formas de mobilização da sociedade, institucionais ou informais, para enfrentar as pragas solidariamente. Sempre houve conflitos de saberes, saberes tidos como idôneos, científicos, saberes tidos como charlatanices, superstições. Diante das mesmas epidemias, culturas, cidades e países reagiram diferentemente, chegando a resultados distintos. Sempre houve os inimigos imaginários causadores das pragas, as teorias conspiratórias, E sempre houve o amanhã, de infortúnios econômicos e políticos, mas também de reinvenção da sociedade, de grandes saltos no uso social dos saberes e das técnicas. E as pestes sempre encheram as mulheres e os homens de muitas incertezas, de muitas perguntas. Mas, ao mesmo tempo, cada epidemia enraíza-se em condicionantes históricos específicos, o que faz com que tenha cada uma suas singularidades: a maior singularidade da nossa grande epidemia do tempo presente seja ter sido a primeira a ser vivida em tempo real ao mesmo tempo por toda a humanidade, parando ao mesmo tempo todo o planeta, entre o final de março e o início de abril, como arma não farmacológica contra a propagação do vírus, o que nunca tinha ocorrido anteriormente.

Epidemics impact history since the beginning of the sedentarization of humanity, as there is no trace of epidemic outbreaks throughout the Paleolithic. It is the sedentarization and the emergence of the urban way of life that creates the

conditions for epidemic events. Thus, it seems interesting to develop a trans-historical look at the epidemic and pandemic outbreaks, as it allows us to observe resurgences and singularities. There are cross-cutting issues that recur throughout history. The history of the plague is crossed by the history of military conflicts, but also of love, since war and sex were two factors that propelled epidemics. The history of the plague is crossed by wealth and poverty, as contexts of greater commercial strength and interconnection of distant regions were the ideal context for the spread of epidemics, but social vulnerabilities have always created more catastrophic scenarios for these to become overwhelming. There have always been forms of denial, whether of a political, intellectual or religious nature. Epidemics test the virtue of rulers: there were always those who faced the challenge of doing their best to fight the disease and, on the other hand, those who shied away from the moral responsibility of preserving the lives of the population. There have always been ways of mobilizing society –institutional or informal ways– to face the plagues in solidarity. There have always been conflicts of knowledge –between knowledge forms taken as reputable and scientific, and those taken as quackery, superstitions, according to a given time knowledge system. Faced with the same disease, cultures, cities and countries reacted differently, achieving different results. There have always been the imaginary enemies that caused the plagues, the conspiracy theories: Jews, gays, Chinese... And there has always been a tomorrow, a day after of economic and political misfortunes, but also of reinvention of society, of great leaps concerning social use of knowledge and techniques. The plagues have always left women and men with many uncertainties, many questions. Nevertheless, at the same time, each epidemic is rooted in specific historical conditions, so that each one of them has its singularities. Perhaps the main singularity of the present time pandemic is that it is the first to be experienced in real time at the same time by all of humanity. In late March and early April 2020, Covid-19 simultaneously stopped the entire planet as a non-pharmacological weapon against the spread of the virus –it never happened before!

Giovanna Lorena Ribeiro Chaves (digitALE / Universidade Federal do Paraná, Curitiba / PR, Brazil; Universidade Federal Fluminense, Niterói / RJ, Brazil) / *Deutsch online und ohne Grenzen, Deutsch für die Länder portugiesischer Sprache*

Das Sprachlernprogramm „Idiomas sem Fronteiras“ („Sprachen ohne Grenzen“) bot zwischen 2016 und 2020 Hunderten von Lerner*innen an Hochschulen Brasiliens im Rahmen deutsch-brasilianischer Zusammenarbeit Online-Deutschkurse mit tutorieller Präsenz-Begleitung durch brasilianische Lehrkräfte an. Die Kurse erfolgten auf Basis der deutschen digitalen Plattform Deutsch-Uni Online (DUO), bei deren Nutzung die intensive Betreuung durch einen weiteren Online-Tutor vorgesehen ist. In dem Zusammenhang wurde an der Bundesuniversität von Paraná (UFPR) in Curitiba ein Start-up gegründet, das erstmals die Aktivität der „Lokalisierung“ des deutschen Materials und Lernangebots unterstützte und die komplexe Teamarbeit zwischen Online- und Präsenz-Tutoren sowie Koordinatoren an den beteiligten Hochschulen mit organisierte. Ab 2020 entwickelte das junge brasilianische Unternehmen weiterhin in Zusammenarbeit mit DUO und in Verbindung mit der UFPR in einer Gründungsphase ein eigenes Angebot. Der vorliegende Beitrag stellt aus dem Blickwinkel des Start-ups die Entwicklung dieses Angebots dar und nimmt sie zum Anlass, um aus sprachpolitischer und didaktischer Sicht die Möglichkeiten des Online Blended Learning (OBL) zu umreißen. Die in Brasilien gesammelte Erfahrung kann möglicherweise dienlich sein, das Angebot von Deutsch nicht nur vor Ort, sondern auch in weiteren, vor allem afrikanischen Ländern portugiesischer Sprache zu erweitern.

Vatsi Meneghel Danilevicz and Christiana Cabicieri Profice (Universidade Estadual de Santa Cruz, Programa de Pós-Graduação em Desenvolvimento e Meio Ambiente, Ilhéus / BA, Brazil) / *Devires Tupinambá: o direito à terra e à biodiversidade / Becoming Tupinambá: The Right to Land and Biodiversity*

O presente projeto de pesquisa trata da questão indígena brasileira, especificamente do povo Tupinambá de Olivença, Ilhéus-BA, e sua relação singular com a terra e com a biodiversidade do seu território. Para tanto, buscamos compreender as relações

intra e interétnicas da população, suas características, demandas sociais e, principalmente, a relação da população com a terra e a biodiversidade da região. Afinal, partimos do pressuposto de que o acesso à terra é fundamental para o pleno desenvolvimento destas populações e, também, é fundamental para garantir uma ampla gama de direitos humanos fundamentais, incluindo alimento, água, identidade etnocultural e condições básicas de saúde, além de preservar as florestas e biomas que habitam. O conceito de devir é uma articulação do campo da filosofia e psicologia aplicado à realidade Tupinambá, afinal trata-se de um conceito que permite deslocamentos do etnocentrismo, pois os devires são caminhos necessariamente múltiplos que obrigam o pensamento a sair de sua imobilidade. Metodologicamente a pesquisa tem caráter qualitativo, exploratório, observacional, transversal e de campo, circunscrita na vertente epistemológica da cartografia esquizoanalítica, lançando mão das ferramentas metodológicas de observação participante, entrevistas não estruturadas, ensaios poéticos e fotográficos, assim como audiovisuais contando com a participação de, aproximadamente, sessenta indígenas da etnia Tupinambá de Olivença, de acordo com o interesse em participar deste estudo. O desenvolvimento dessa pesquisa resultará no levantamento de material científico e histórico das comunidades Tupinambá de Olivença; no mapeamento subjetivo e ontológico da mesma comunidade, isto é, como se dão as relações de afeto e de significados da própria existência; no desenvolvimento de um portfólio fotográfico e audiovisual dos encontros grupais e principais momentos acompanhados; na composição escrita de materiais para publicação e fortalecimento do território indígena ainda não demarcado.

This research project deals with the Brazilian indigenous issue, specifically the Tupinambá people of Olivença, Ilhéus-BA, and their unique relationship with the land and biodiversity of their territory. Therefore, we seek to understand the intra and inter-ethnic relations of the population, its characteristics, social demands and, above all, the relationship between the population and the land and the biodiversity of the region. After all, we assume that access to land is fundamental for the full development of these populations and, also, it is fundamental to guarantee a wide range of fundamental human rights, including food, water, ethnocultural identity and basic health conditions, in addition to preserve the forests and biomes they inhabit.

The concept of becoming is an articulation of the field of philosophy and psychology applied to the Tupinambá reality, after all it is a concept that allows displacements of ethnocentrism, as the becoming is necessarily multiple paths that force thought to leave its immobility. Methodologically, the research is qualitative, exploratory, observational, transversal and applied in the nature, circumscribed in the epistemological aspect of schizoanalytic cartography, making use of the methodological tools of participant observation, unstructured interviews, poetic and photographic essays, as well as audiovisuals with the participation of, approximately sixty indigenous people from the Tupinambá de Olivença ethnic group, according to their interest in participating in this study. The development of this research will result in the survey of scientific and historical material from the Tupinambá communities of Olivença; in the subjective and ontological mapping of the same community, that is, how the relationships of affection and meanings of existence itself occur; in the development of a photographic and audiovisual portfolio of group meetings and main accompanied moments; in the written composition of materials for publication and strengthening of the indigenous territory that has not yet been demarcated.

Vanessa Fernandes Dias (Universidade Estadual de Campinas, Campinas / SP, Brazil)
/ Between Slavery and the Art of Survival: Plautine Receptions in Ariano Suassuna's Comedies

Within the framework provided by reception theory (MARTINDALE, 1993), this presentation intends to relate how slavery is played out in the comedies *Miles Gloriosus*, a Roman play written by Plautus between the centuries III and II B.C., and its representative correspondence in *Auto da Compadecida*, a play written by Ariano Suassuna (1927-2014), a writer from the northeastern Brazilian state of Parahyba. For this purpose, taking into account the specific features of slavery in ancient Rome and in Brazil, I try to analyze how the characters defined by their cleverness, i.e., the *serui callidi* in Plautus and the “amarelinhos” in Suassuna, deploy their sagacity as an art of survival in each of the dramatic contexts (DIAS, 2020). Furthermore, I attempt to consider, even at a incipient stage, the representation of leisure or *otium*

in both plays, a fact of particular relevance in Western slaveholding societies such as ancient Rome and Brazil (JOLY, 2005; NABUCO, 1988; STEWART, 2012). Thus, this paper aims to contribute to a better acknowledgement of the damaging consequences of the colonial slaveholding regime that still affect contemporary Brazilian society, as well as to highlight the relevance of these studied texts concerning the understanding of 'slavery' and its consequences on ancient and modern societies.

Gilbert Dotsé Yigbe (Université de Lomé, Lomé / Togo) / Das Erzählen über Sklaven in Afrika und in den transatlantischen Beziehungen: historische Realitäten und literarische Mythen / Telling about Slaves in Africa and in Transatlantic Relations: Historical Realities and Literary Myths

Ungeachtet der Polemik über die freigekauften Sklavenkinder durch die deutschen evangelischen Missionare in der zweiten Hälfte des 19. Jahrhunderts an der westafrikanischen Küste (Alsheimer 2010: 165-171) beweisen die Vorkehrungen dieser Missionare, dass in Westafrika damals mindestens eine weitere Form der Sklaverei neben dem berüchtigten transatlantischen Handel existierte: die afrikanische Haussklaverei wird als der Nährboden für den transatlantischen Sklavenhandel betrachtet. Vor der Folie dieser historischen Erkenntnis werden im Folgenden drei bzw. vier literarische Werke eruiert: Sam Obianims Ewe-roman *Amegbetɔa? alo Agebzuge fe ntinya* (1949) zeigt die vorkoloniale sozialen Realitäten; Félix Couchoros *L'Esclave* und Kangni Alem's *Esclaves* (2009) und *Les enfants du Brésil* (2017) beschreiben jeweils die kolonialen bzw. postkolonialen Verhältnisse in Westafrika sowie die wechselseitigen Nachwirkungen des transatlantischen Sklavenhandels auch in Brasilien.

Notwithstanding the polemics about the ransomed slave children by the German Protestant missionaries in the second half of the 19th century on the West African coast (Alsheimer 2010: 165-171), the arrangements made by these missionaries prove that at least one other form of slavery existed in West Africa at that time besides the notorious transatlantic trade: African domestic slavery is considered the breeding ground for the transatlantic slave trade. Against the backdrop of this historical

insight, three or four literary works will be explored in the following: Sam Obianim's Ewe novel *Amegbetɔa? alo Agebzuge fe ntinya* (1949) shows the pre-colonial social realities; Félix Couchoro's *L'Esclave* and Kangni Alem's *Esclaves* (2009) and *Les enfants du Brésil* (2017) respectively describe the colonial and post-colonial conditions in West Africa as well as the mutual after-effects of the transatlantic slave trade also in Brazil.

Luiz Sérgio Duarte Silva (Universidade Federal de Goiás, Goiânia / GO, Brazil) / *Teoria da historiografia da escravidão / A Theory of the Historiography of Slavery*

Slavery was understood as a basic element of the capital accumulation, a mode of production, a part of the old regime or a dimension of time in modernity. The studies of slavery is the strongest area of historiography of modern age: intercultural, transatlantic, interoceanic trade of things and values the slavery is also a violent and brutal kind of relation entwined with changes in the bourgeois culture and with the construction of notions of citizenship, selfhood and liberty.

João Roberto Gomes de Faria (Universidade de São Paulo, São Paulo / SP, Brazil) / *Theater and Slavery in Colonial Brazil*

This is about the relationship between theatre and slavery in Brazil in the Nineteenth Century, in order to evaluate the contribution of the Brazilian theatre to the cause of abolition and to the fight against slavery. I have investigated the period of fifty years of theatrical activity, beginning in 1838, when Martins Pena created Brazilian comedy and up until the promulgation of the Lei Áurea, on 13 May 1888. I am going to highlight certain authors and plays in this presentation as also the social context in which the plays were staged.

Ana Azevedo Bezerra Felício (Universidade Estadual de Campinas, Campinas / SP, Brazil) / *On Freedom: Comparative Readings of Hegel and Seneca in Postcolonial Discourse*

Inspired by the study of racial conflict in the nineteenth century and within the context of a broader project, this paper proposes a comparative reading of the notion of freedom as conceived by Seneca the Younger (c. 4 BC – AD 65) and as currently understood by postcolonial studies. Both perspectives, diverse as they may be, discuss freedom within the framework of master/slave relationships. My starting point is the reception of Hegel's *Phenomenology of the Spirit* by Fanon (2008) and Gilroy (2012). Given that an association between Seneca and Hegel has already been suggested (Ziolkowski 2004 and Von Albrecht 1999), I intend to question how Fanon (2008) and Gilroy's (2012) interpretation of a passage in Hegel may shed light on the ideal of freedom upheld by Seneca's stoicism. According to Buck-Morss (2000), Hegel's discussion of stoicism and skepticism in his *Phenomenology* is a fruitful basis for identifying different conceptions of the reality of slavery. Since it is not my purpose to deliver a purely theoretical paper, I shall be constantly referring to aspects of black slavery. I thus hope to be able to illustrate some of the corollaries of these thoughts for Classical Studies in Brazil.

Paulo Fernando Papaleo Fichtner (Universidade Federal do Rio Grande do Sul, Porto Alegre / RS, Brazil) / *Probing the Size-Dependent Properties of Nano-Objects via Electron Irradiation*

Nano-objects (e.g., nanoparticles, nanowires, and nanofilms) are thermodynamically unstable structures. Their properties are different from the corresponding bulk materials, varying with their size or the surrounding medium characteristics. Minimizing the interface free energy plays a dominant role in the conformation of the nano-object sizes, shapes, and the overall arrangement of the nano-object system. It requires significant atomic displacements to drive the system towards a lower free energy state. In general, fundamental quantities such as the cohesion energy E_c , atomic surface displacement energies E_d , and surface binding energies E_s are

indirectly determined by modeling the thermal behavior of nano-objects systems in terms of observable quantities such as melting temperatures or growth/dissolution rates. This talk focuses on determining nano-object size-dependent properties (E_c , E_d , E_s , and their correlated properties) using room temperature electron irradiations. It also tackles electron irradiation as a nanoengineering tool operating at low temperatures to circumvent thermal instability effects of the nano-objects or their surrounding medium. The discussions comprise recent experimental observations of Au and Ag nanoparticles systems' behavior and Au and CdSe thin films caused by room temperature electron irradiations within the energy range from 80 to 200 keV, considering both: elastic and inelastic electron interactions.

Mônica Santos de Freitas (Universidade Federal do Rio de Janeiro, Rio de Janeiro / RJ, Brazil) / *The Impact of Structural Biology in Life Science*

Amyloidosis is a clinical disorder caused by extracellular deposition of proteins that are normally soluble in their native conformation, but suffer conformational modifications resulting in insoluble, abnormal fibrils that impair organ function. Parkinson's disease (PD) and Alzheimer's disease (AD) are the two major common neurodegenerative diseases. Amyloid formation, however, is not a specific feature of disease related proteins, but instead appears to be a general property of peptides and proteins. Amyloids also gained attention in the field of bio- or nanotechnological applications since these structures show an outstanding mechanical stability and remarkably regular fibrous architecture. In this presentation, the structural biological field will be presented as an important approach to improve the knowledge at the atomic level of huge molecular complexes, such as amyloid fibrils.

Carlos Frederico de Oliveira Graeff (Universidade Estadual Paulista, Bauru / SP, Brazil) / *From Nature to Organic (Bio)Electronics: A Review on Melanin-Inspired Materials*

Melanin is a generic term evoked for a broad class of indole/quinone-based natural pigment, mainly known for its primary role in photoprotection. Besides, throughout

the last couple of decades, melanin and melanin-like materials garnered a lot of attention as a soft biocompatible functional material for bioelectronic and optoelectronic devices due to their water-dependent conductivity and excellent biocompatibility. However, in the earlier days, the limited solubility and the low electronic conductivity have hindered their progression in such technological helms. Currently, these issues have been overcome by different strategies. This talk briefly updates the physical-chemical properties of melanin and melanin-inspired materials and their technological problems and applications. We also emphasize some chemical tailoring procedures for synthesis and processing.

Mirabbos Hojamberdiev (Technical University of Berlin, Germany) / *My Unprecedented Scientific Journey to the African Continent*

Current momentum on renewable energy and environmental remediation is unprecedented because of fast climate change, and there is an urgency to radically lower greenhouse gas emissions. We all know that the world is hurrying up to achieve the United Nations Sustainable Development Goals (SDGs) by 2030 without pausing even during the COVID-19 pandemic. Mainly, Goal 3: Good health and well-being, Goal 6: Clean water and sanitation, Goal 7: Affordable and clean energy, Goal 11: Sustainable cities and communities, Goal 13: Climate action, Goal 14: Life below water, and Goal 15: Life on land are strongly linked to energy and the environment. To successfully achieve the 17 SDGs, experts from academia, policy-making, and deployment should combine their efforts. In their part, scientists, regardless of their countries, must work together to understand the local, regional, and global challenges and impacts and to find solutions jointly. As a Materials Scientist coming from a developing country, I have been working on developing novel advanced materials for solar energy conversion and environmental remediation with my well-connected international network in five continents. In recent years, my scientific journey and collaboration have even reached the African continent thanks to the wonderful support of various organizations and people. With my Egyptian colleague, we explored the impacts of particle morphology and crystal size on photoluminescence of calcium vanadates. With my Tanzanian colleague, we successfully immobilized

various organic ligands in spent alumina catalyst from the petrochemical industry and applied for efficient removal of heavy metal ions from model-contaminated water. With my Nigerian colleague, we jointly developed a non-ionogenic styrene-divinylbenzene polymeric sorbent for effective extraction of metal ions from water and amine-imprinted manganese ferrite for the removal of free fatty acid from waste vegetable oil. With my South African colleague, we enhanced the photocatalytic water splitting for green hydrogen generation of various non-oxide materials by loading noble metal complexes as cocatalysts. In my latest collaboration with a Ghanaian colleague, we are unfolding the valuable use of natural clay from Ghana on the removal of various heavy metals, toxic oxyanions, and harmful organic compounds. My collaborations, particularly with African scientists, enabled me to access specific expertise, to gain new knowledge, and to develop new perspectives for my research area. I believe that the interdisciplinary and intercontinental scientific collaboration is crucial for building a sustainable society in our shared world.

Matthias Kaufmann (Martin-Luther-University Halle-Wittenberg) / What Do Freedom and Liberty Mean, and Which Kind of Freedom/Liberty Are Worth Fighting for?

There have been a considerable number of ways how to clarify the concept of freedom resp. liberty (I do not try to make a clear difference between these two terms, not having found it so far): Berlin's two concepts of liberty, i.e. positive and negative liberty, Pettit's liberty as Non-domination, by the way in the end not far from Kant's "Freedom (independence from being constrained by another's choice), insofar it can coexist with the freedom of every other in accordance with a universal law" as the only "innate right". There were debates whether liberty, as the main concept of liberalism, is compatible with equality, the central term of democracy. Furthermore we have the Marxist view that liberal freedom, by which one individual is the limit of another individual's freedom is in the end nothing but the protection of private property and privileges, whereas real social liberty has to see the other not as a limit, but as realization of one's freedom.

I will try to show that as soon as we stop seeing freedom as a good, as a bonum fortunae that persons may win or lose, but as a right, a human right, then there is an inner logic that combines positive and negative liberty, freedom and equality, freedom from want and freedom from fear, but not property that goes beyond the necessities of life (even if it may be useful for the common good to maintain it as an institution). This is the freedom/liberty that should be fought for, even if it is not always clear what are the adequate measures and even if the current worldwide situation is everything else but encouraging.

Constant Kpao Saré (Université d'Adomey-Calavi (DEG/UAC), Cotonou / Bénin; Lehrstuhl für Interkulturelle Germanistik, Universität Bayreuth, Deutschland) / *Postcolonial Rereading of Transatlantic Slavery between Trivialization, Memory Competition, Responsibility of the African Elites and the Fixation of the Instability of Brazilian Cultures in Ethnographic Writings about Dahomey*

Today, slavery is considered a crime against humanity. But even after the Durban Conference 2001, transatlantic slavery remains an issue on which there is still no consensus. Questions about transatlantic slavery are mostly posed under the terms: Apology – compensation – reparation (Howard-Hassmann, 2011) In this way, opposing tendencies in the postcolonial two-world-model can be identified: pan-African arguments on the one hand and Eurocentric discourses on the other. In my paper, I want to show that positions and arguments found in academic discussions are also tested as narrative perspectives of postcolonial literary criticism. I first try to review the existing research literature for relevant references and show their implications for German and African literature. Finally, I'll show that identity formation in the context of the transatlantic slave trade is far removed from the issues discussed in this two-world model.

Liliana Mamino (School of Mathematical and Natural Sciences, University of Venda, South Africa) / *Science Education as the Key Factor – Determining the Relationships Between Sciences and Society*

The modes in which science education is carried out is the factor that dominantly influences the public perceptions about science, through the known mechanisms of pupils taking home messages and perceptions acquired in the class and through the bases that they acquire and will influence their own perceptions when they become adults. Ideally, science education should engender appreciation and enthusiasm. Regrettably, this is not always the case. The presentation considers and analyses three major factors hampering the development of real appreciation for science through education in South Africa: the frequently inadequate subject knowledge by the teachers, the use of a second language as medium of instruction and the absence of connections between modern science and traditional practices – with the last two factors being directly colonial heritage.

The inadequacies in the teachers' subject knowledge often prevent teacher-students interactions, because the teachers do not feel sufficiently confident. The lack of active students' participation leads to passive memorisation without understanding. Furthermore, the teacher does not have the background knowledge that could suggest creative ways of compensating the frequent absence of laboratories by guiding students to recognise the 'science around us' and training them to identify, organise and express observations.

The use of a second/foreign language that students often do not master enough to fully understand in-class explanations or a written text, and that teachers often do not master enough to utilise language as an explanation tool, is likely the major obstacle to conceptual understanding, severely limiting its depth and completeness, and being a major cause of passive memorisation. The imprinting from colonial heritage is often so strong that many persons do not consider African languages capable of expressing science. The fact that science is not expressed in the people's language and the fact that traditional practices are often not included in the range of illustrative examples for newly-introduced concepts foster a perception of science as something 'alien', pertaining to someone else.

The factor that needs first-priority addressing is the issue of the language of instruction, which, in turn, requires the expression of sciences in the students' mother tongues. Pursuing this requires innovative attitudes, first of all the recognition of the distinction between terminology (which is an ensemble of names) and the resources of a language, which are the information carriers realizing communication. This is tantamount to a paradigm shift, for which the current concept of "developing African languages to express science" needs to be replaced by the concept of 'exploring the resources of African languages' to identify the best ways of communicating each and every science concept through them. While terminology can be created at any moment, the identification of the most suitable resources of a language for specific features of science concepts, and of the best ways of using them, requires cross-disciplinary collaboration between scientists and linguists. The presentation includes illustrative examples highlighting the terms of such collaborations, from the scientists' ability to recognise the epistemological details of a given concept to the linguists' ability to identify the language resources to express those details through the selected language.

Carlos A. Martínez-Huitle (Instituto de Química, Universidade Federal do Rio Grande do Norte, Lagoa Nova / RN, Brazil) / Opportunities and Challenges of Water Treatment Technologies Integrated with Renewable Energies at the Water-Food-Energy Nexus

Nexus concept is the interconnection between the resources energy, water, food, land and climate. Interconnections between the Nexus sectors may benefit from climate change, energy demand, among others, to sustainable development goals (SDG) through the integrated planning and management processes. Electrochemical driven processes have emerged as efficient and sustainable technology for the detection and removal of pollutants in water matrices, production of fuels, green organic synthesis and reduction of CO₂. In this frame, electrochemistry is playing a key role in environmental protection, resources recovery, and climate neutrality, which could be simultaneously achieved when a Nexus applicability is visioned. This challenge is related to the lower production of wastes because of the direct use of electron as reagent, the improvements on the electrochemical transformations and, most

importantly, because electrochemical processes can be powered with green energies, contributing to a reduction in the carbon footprint of processes. Then, the integration of electrochemical approaches towards the future of Nexus-electrocatalytic technologies will be presented.

Sérgio Ricardo da Mata (Universidade Federal de Ouro Preto, Ouro Preto / MG, Brazil)
/ Uma ética negativa do trabalho: a escravidão na obra de Max Weber

Se existe um problema presente de forma difusa por toda a obra de Max Weber, é o tema da liberdade. Como bom neokantiano, ele entendia que a eticização moderna do trabalho só pôde se difundir onde já não existia o que Marx chamava de formas de coerção extra-econômica do trabalhador. Em última análise, portanto, a liberdade não se dá a pensar sem o seu oposto. De fato, não faltam evidências de que o *oposto da liberdade* é uma questão importante para Weber, e isso para além de sua previsão pessimista quanto à inexorável racionalização/burocratização do mundo. Quais as implicações últimas da sua afirmação de que "a civilização antiga é uma civilização escravista", e como a escravidão é analisada em seus estudos histórico-sociológicos? Existe uma sociologia da escravidão em Weber?

Dinarte Neto Moreira-Ferreira [1,2]; T. A. L. Duque [3]; P. C. Arantes [3]; L. Monteiro [2]; E. Medei [3]; L. A. Alves [2]; M. S. Freitas [1] ([1] (Instituto de *Bioquímica Médica Leopoldo de Meis*, Universidade Federal do Rio de Janeiro, Rio de Janeiro / RJ, Brazil; [2] *Fundação Oswaldo Cruz*, Rio de Janeiro / RJ, Brazil); [3] Instituto de *Biofísica Carlos Chagas*, Rio de Janeiro / RJ, Brazil / *ATP Provoked Plasma Membrane Permeabilization for Propidium Dyes in a P2X7 Independent Pathway on HEK292T Cells*

ATP is a central molecule on energy metabolism of all living beings acting as energy currency for chemical reactions inside the cells. For this reason, ATP is found at high concentrations (>mM) on intracellular environment. In contrast, ATP concentration on extracellular environment (eATP) is low (nM-uM) in health tissues, due to low ATP release and degradation by ectonucleotidases. However, in pathological conditions

eATP concentrations can achieve millimolar concentrations due to release by necrotic cells or cells under stressful conditions, such as infection by intracellular pathogens or hypoxia. At these conditions, eATP acts as a DAMP (damage associated molecular pattern) and evokes paracrine pro-inflammatory responses from immune cells, such as macrophages. The pro-inflammatory actions of high concentrations of eATP occurs by activation of purinergic P2X7 receptor, in which has low affinity to ATP and is activated only on pathological condition where high eATP concentrations acts as a DAMP. When activated by eATP, P2X7 receptor opens a cation selective channel, however, during prolonged stimulation, the cells become permeable to nanometer sized molecules, suggesting the opening of a macropore on plasma membrane. The exact mechanism underlining P2X7 induced macropore formation and its relation to pro-inflammatory responses is under debate, however, this pathway is a potential target for novel anti-inflammatory drugs. For this reason, our group proposes to study P2X7 macropore formation on a heterologous expression system on HEK293T cells using membrane impermeant probe propidium iodide uptake as fluorescent probe for macropore formation. Surprisingly, non-transfected HEK293T cells, that we showed that do not express P2X7 receptor, also promotes macropore formation upon millimolar eATP concentration treatment. Macropore formation cannot be achieved by eADP or eUTP millimolar concentrations on HEK293T cells, suggesting that this effect is specific for eATP. This novel pathway may contribute to high eATP concentration recognition as a DAMP and it encourage us to identify this macropore formation mechanism that occurs in the absence of P2X7 receptor. In order to characterize the effects of high eATP concentration on HEK293T cells, we perform patch-clamp experiments. The results showed that eATP provokes macroscopic currents upon millimolar ATP treatment. In addition, we showed using calcium sensitive fluorescent probe Fluo-4 that eATP provokes calcium uptake on HEK293T, suggesting the opening of ion channels on plasma membrane. We also showed that eATP actions on HEK293T cells do not occurs by chelating effect of ATP, as EDTA treatment do not promotes macropore formations as well. Calcium uptake by ionomycin or plasma membrane depolarization by high KCl concentrations also does not provokes macropore formation upon eATP treatment. eATP induced macropore formation on HEK293T cells is partially blocked

by probenecid, a nonspecific drug that block different membrane transport pathways for large organic molecules, suggesting that one of its target proteins may be responsible for propidium movement across plasma membrane. Although we do not identify this macropore formation pathway, our results showed that P2X7 receptor isn't the sole sensor for pathological high eATP concentration as a DAMP and this novel pathway may be important to understand innate immune responses to damaged tissues.

André Luiz de Almeida Lisbôa Neiva (Research Scholar at Purdue University, USA) / *Pascal's Wager and Decision-Making with Imprecise Probabilities*

Unlike other classical arguments for the existence of God, Pascal's Wager provides a pragmatic rationale for theistic belief. Its most popular version says that it is rationally mandatory to choose a way of life that seeks to cultivate belief in God's existence because this is the option of maximum expected utility. Despite its initial attractiveness, this long-standing argument has been subject to various criticisms by many philosophers. What is less discussed, however, is the rationality of this choice in situations where the decision-makers are confronted with greater uncertainty. In this paper I examine the imprecise version of Pascal's Wager, that is, those scenarios where one's credence that God exists is imprecise or vague rather than precise. After introducing some technical background on imprecise probabilities, I apply five different rules for decision-making to two scenarios of state uncertainty. I argue that even if it is not rationally permitted to include zero as the lower probability of God's existence, choosing the option of wagering for God isn't the unique optimal decision in the simplest decision matrix. Any mixed strategy between wagering for God and wagering against God will be rationally permissible for all rules explored here.

Thiago Lima Nicodemo (Universidade Estadual de Campinas, Campinas / SP, Brazil)
/ Coronarchive: The Preservation of the Digital Memory of Pandemic

Historians devoted to telling the story of COVID-19 pandemic should question the involved archival conditions. In this presentation, approaches the archival landscape in Latin America in view of COVID-19 pandemic, which particularly unfolded in the digital environment. Firstly, I suggest a review of the archival digitization in Latin America, providing context for the conditions observed during the pandemic. Secondly, discusses the emergence of digital memory initiatives focused on COVID-19, showing typological relations that may arise from transnational analyses. Accordingly, dives into some Brazilian archival initiatives with major ethnographic rigor since, in addition to closely representing the reality of the region, they provide us with a more accurate immersion into the agents, platforms, and challenges of this pandemic digital undertaking. Lastly, it points out to the complex situation of public archives amidst the mass of documents resulting from the pandemic. This way, we pose questions about the increasingly important interface between history, archives, and a policy for transparency of data. This presentation is part of a broader research, the "Coronarchive" hosted at the Digital Humanities Center - IFCH/unicamp (<https://www.chd.ifch.unicamp.br/node/9>).

Marian Asantewah Nkansah (Kwame Nkrumah University of Science and Technology // Kumasi, Ashanti – Ghana) / *A Citizen's Perspective on Ghana's Response to Covid-19: The Highs and the Lows*

The talk will give an overview of Ghana's Covid-19 story in terms of preparation, response, policy and social interventions which guided the people of Ghana pre COVID-19 and throughout the pandemic to date. Highlights on how government, political parties, citizens, scientists and academia, corporate entities, faith based organisations, traditional rulers, etc. rose to the occasion to contribute to the management of the pandemic. Some highs and lows of the various interventions will also be discussed.

Nythamar de Oliveira and Maria Angélica Zubarán (Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre / RS, Brazil; Universidade Luterana do Brasil, Canoas / RS, Brazil) / *Recasting Afro-Brazilian Diasporic Identity in Postcolonial Perspectives*

We attempt to show that black press in Brazil's post-abolition (in the last decade of the XIXth century and the first decades of the XXth century) succeeded in making visible the struggles for recognition of black intellectuals in their fight against racism and in the defense of inclusive education. In so doing they close the phenomenological gap between third- and first-person accounts of social liberation and political emancipation. By bringing together contributions from critical theory (especially Jürgen Habermas) and cultural studies (especially Stuart Hall), we recast Afro-Brazilian diasporic identity in the framework of a postcolonial phenomenology of liberation. We argue for social egalitarianism in race, gender, and cross-cultural studies so as to avoid the pitfalls of a positivistic historiography and subjectivistic interpretations of the lifeworld.

Jacob Olupona (Harvard University, Department of African and African American Studies) / *Religious and Philosophical Implications of the Transatlantic Slave Trade*

This paper will explore the implications of the transatlantic slave trade on philosophy and the study of religion. The institution of slavery was a watershed moment not only in the historical development of Africa, but of Atlantic societies more broadly. Enslaved Africans created new religious formations and modes of spiritual practices that troubled the category of religion. These religious formations engaged with practices such as music, materiality, and dance in powerful and serious ways. Because these traditions were not reducible to religious texts, the field of religious studies had to rethink, fundamentally, the way in which it understood religion in order to discuss them. I argue that these new formations, and their resultant changes in thought, fundamentally changed the study of religion and foreshadowed the postmodernist urge toward deconstruction in philosophy. Because of the resultant formations of transatlantic slavery, embodied practices and materiality could be

considered religious, thus opening the space for neglected religious formations to take their place within the field of religious studies and the list of "global religions." This paper begins with a discussion of transatlantic slavery, where I will establish transatlantic slavery as a practice that is distinct from other historical forms of slavery. I will then discuss the new religious formations that were created by slaves in places such as the Caribbean and South America. Finally, I will discuss the effects of these formations on the study of religion and on philosophy.

Leticia F. Palhares (Departamento de Física Teórica, Universidade do Estado do Rio de Janeiro, Rio de Janeiro / RJ, Brazil) / *What Is Inside the Proton? From Confinement to Confinement of Quarks and Gluons*

In this seminar I will address the current status of the knowledge about the deepest structure of matter and some recent efforts to describe its nature. Quantum Chromodynamics is the fundamental theory that describes the interaction of particles called quarks and gluons that constitute atomic nuclei. I will discuss in particular the phenomenon of color confinement which guarantees that quarks and gluons are never observed directly.

Marçal de Menezes Paredes (Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre / RS, Brazil) / *In the Searching of "New Brazils"? Race Relations and Politics in the Portuguese Modern Colonialism in Angola and Mozambique (19th-20th Centuries)*

The Brazilian formation is deeply tied to several African Societies that were brought to South America as slaves. More than 4,500 million people, including males, women, and children raised in different languages, cultural practices, and cosmological beliefs, somehow resisted this massive violence and, as much as possible, rebuilt their cultures and identities. All that diversity got mingled, summarized, and subalternized in the racial discourse and politics. As a Portuguese Colony (until 1822), Brazil was built by working and forced labor that came from another continent. It is crucial to perceive that, in all this process, the Portuguese occupation in Africa

was significant only in ports and coastal cities. In the hinterland, its presence was relatively slight, being almost exclusive to the military camps (*presidios*), where Portuguese officials reached local intermediaries (the Ambakists, for example) to get the necessary logistics (food, water, guard) and transfer captives to the shorelines. The Brazilian Independence and the English Abolitionist Campaign (in the 1807-1833 aftermaths) transformed all this mode of production. As a result, Portugal's economy and politics dropped into a bottomless crisis. As put by Oliveira Martins (1880), the need for a "New Brazil" had seduced minds and unlocked projects trying to consolidate the long-lasting Portuguese presence in Africa and transforming it into lucrative colonies. To do so, nonetheless, the only working force they had was the native labor. In the last Ninetieth Century, with a broken economy and a profound sense of decadency, however, Portugal had to confront much more challenges. The European competition for African colonies symbolized by the Berlin Conference (1884-1885) sparked a reactive movement in Portugal's politics. Henceforth, occupying colonial territories was mandatory to keep them. The so-called "war of occupation," a euphemism for the colonialist conquest, showed how tough and diverse the African Nations were.

The borders of Angola and Mozambique, for example, were drawn through a complicated process that included wars, treaties, competition, division of Etnies, and subjection of chiefdoms. This presentation aims to focus on this broader picture of Portuguese Colonial Conquests from the late XIX Century to the early XX Century. It fosters the historical analysis of the differences between Brazilian, Angolan, and Mozambican colonial history and highlights the danger of a simplistic and racialized overview of them.

Roberto Hofmeister Pich (Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre / RS, Brazil) / *Philosophy and Black Slavery: Some Notes on the Historical Emergence of an Ideology*

It is a consensus that the ideology of slavery in 16th-19th centuries can only be understood through a revision of related works and authors in ancient, medieval and early-modern philosophy. What still remains almost totally unknown until today is

the role of the intellectuals of the so-called "Baroque Scholasticism" – including here its representants in "colonial" Latin America –, that is the intellectuals educated by Renaissance, humanistic and above all scholastic schools, who both explained, supported, and in some cases criticized in various forms the status and mechanisms of slavery and black slavery in particular. How was it possible that in many cases the same intellectuals and university masters who rejected, above all under the influence of Thomism and the teachings of the School of Salamanca, the slavery of indigenous peoples of the "New World" accepted and even gave support to the enslavement and the slave trade of black people? How can we find in this *terra ignota* of the historiography of ideas principles in philosophy, theology and law that point out to a new approach to the value of freedom and universal (human) rights, to be first recognized in the late 19th century? The many faces and the complex aspects that made possible the ideology of black slavery, that so much influences the framework of Latin American societies and policies until the current times, constitute the main research goals I want to summarize in this presentation.

Sebastião Tavares Rolim Filho (Universidade Federal Rural da Amazônia, Belém / PA, Brazil) / Biotecnologia da reprodução animal: uma importante ferramenta para o melhoramento genético dos animais domésticos / Biotechnology of Animal Reproduction: An Important Tool for the Genetic Improvement of Domestic Animals

O Brasil possui um dos maiores rebanhos bovino do mundo, sendo o maior exportador de carne mundial. Porém, devido a baixa eficiência produtiva, cerca de 1 cabeça por hectare, a pecuária brasileira sofre graves críticas dos setores ambientais, é sendo acusada de devastar diversos ecossistemas, como o ecossistema Amazônico, que possui importância mundial. Porém, o uso de biotecnologias da reprodução, pode mudar essa realidade, aumentando a produtividade, melhorando a sustentabilidade econômica, social e ambiental. Várias técnicas como a inseminação artificial, criopreservação de sêmen e embriões, superovulação e transferência de embriões, sexagem espermática e embrionária, produção in vitro de embriões, clonagem por transferência nuclear de células embrionárias ou somáticas, transgenia, seleção por marcadores moleculares e

genômica, têm promovido o desenvolvimento científico e tecnológico em todo mundo, tornando o Brasil uma referência na produção animal. Portanto, serão apresentadas as principais biotécnicas aplicadas à reprodução bovina e bubalina, as quais possibilitam melhoramento genético e aumento da produtividade desse setor que tem enorme importância econômica para o Brasil.

Brazil has one of the largest bovine herds in the world, being the largest exporter of meat in the world. However, due to low production efficiency, about 1 head per hectare, Brazilian livestock is severely criticized by the environmental sectors, being accused of devastating several ecosystems, such as the Amazon ecosystem, which is of global importance. However, the use of reproductive biotechnologies can change this reality, increasing productivity, improving economic, social and environmental sustainability. Several biotechniques such as artificial insemination, cryopreservation of semen and embryos, superovulation and embryo transfer, sperm and embryo sexing, in vitro embryo production, cloning by nuclear transfer of embryonic or somatic cells, transgenesis, selection by molecular markers and genomics, have promoting scientific and technological development around the world, making Brazil a reference in animal production. Therefore, the main biotechniques applied to bovine and buffalo reproduction will be presented, which enable genetic improvement and increase the productivity of this sector, which has enormous economic importance for Brazil.

Luis Rosa (University of Cologne, Germany) / *The Rationality of Suspended Judgment*

Suspended judgment is an attitude of *neutrality*. When I suspend judgment about whether *God exists*, for example, I neither believe that *God exists* nor believe that *God does not exist*. I am rather on the fence as to whether God exists or not. But when is it rational for one to be in such a state of neutrality? And what are the kinds of propositions that one should suspend one's judgment about? These are the questions that I will address in this talk.

Luis Rosenfield (Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre / RS, Brazil) / *Positivism, Evolutionism and Scientificism: The Philosophical Debate of the Brazilian Generation of 1870*

The present paper seeks to shed light on certain debates that took place among the members of the so-called Generation of 1870 in Brazil. This implies unveiling a philosophical scenario marked by the rise of positivist, evolutionist and scientist ideas at the end of the Second Reign (1870-1889) and in the first years of the Republic (1889-1905). Such philosophical ideas served as the engine for a series of high-impact social demands in Brazilian society, such as the advocacy of Abolitionism, republicanism, and federalism. The argument is focused on understanding how these theories appeared in the Brazilian context and how these European philosophies were adapted to the national reality.

Fabiano Gläser dos Santos (Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre / RS, Brazil) / *Teologia e escravidão: perspectiva histórica da escravidão no Brasil e suas justificativas teológicas*

O presente trabalho tem por objetivo mostrar uma perspectiva histórica da escravidão no Brasil e as as ambiguidades vividas pela Igreja Católica quanto ao sistema escravista brasileiro, uma vergonhosa mancha na história do império brasileiro, que perdurou por quase quatrocentos anos. A escravidão, que coloca o ser humano na condição de mercadoria, não pode de nenhuma forma ser aceita pelos que querem ser discípulos de Jesus Cristo, que se encarnou para dignificar e santificar a humanidade inteira. Contudo, a hierarquia católica nem sempre conseguiu libertar-se dos condicionamentos políticos, sociais e econômicos e deu respaldo a muitas situações ignominiosas, como a escravidão. Contudo, não se pode afirmar que a Igreja foi conivente ou chancelou a escravidão, mas sim que houveram vozes dentro da instituição que defenderam, assim como houveram vozes que condenaram tal sistema. Através da leitura dos autores clássicos da historiografia eclesiástica e das mais recentes pesquisas, percorremos a atuação da Igreja durante a vigência do sistema escravista em Portugal e no Brasil, desde seu início, no século

XV, até seu ocaso, na segunda metade do século XVIII, e constatamos que a Igreja viveu uma história de contradições internas, com vozes a favor e contra a escravidão. A partir da segunda metade do século XIX, com a ascensão do ultramontanismo, o episcopado brasileiro foi aderindo ao movimento emancipacionista e abolicionista. Nos últimos anos, novas pesquisas têm nos apresentado uma nova visão, que não se trata de uma apologia eclesiástica, nem pretende ser isso, mas mostra uma nova leitura.

Sônia Aparecida dos Santos (Universidade Estadual de Campinas, Campinas / SP, Brazil / *A 'Brown' Perspective: Ariano Suassuna and the Brazilian Identity*

It is widely known that the definition of a Brazilian national identity came to be an issue of primary importance in the course of the nineteenth century. After all, before that, in the eighteenth century, a nation had yet to be established. The advent of political independence in the New World, first for the United States of America and then, after the French Revolution, for all the other political entities in the continent, including Brazil, made the quest for 'nationality' a vital need in the legitimation of a country. Between the nineteenth-century romantics and the modernists of the so-called '1922 generation', this quest remained foremost in the arts. Later on, in the 1930s, it became a primary issue of sociological and anthropological studies for writers such as Darcy Ribeiro, Sérgio Buarque de Hollanda and Gilberto Freyre, who also inaugurated a discussion of Brazilian regionalism. Ariano Suassuna, a playwright from the Brazilian state of Parahyba, was a passionate supporter of what he considered as the 'real Brazil' and its true art, that is to say, 'popular art'. This is a very personal stance that in Suassuna's words may even be the arbitrary perspective of a 'Brazilian, a Latin American' who belongs to the 'brown and insular – and also insulated – peoples of the Midday Queen' (SUASSUNA, 1978). In this context, this paper aims at analyzing how Suassuna read the abovementioned authors and their contributions regarding national identity and especially regionalism. It shall furthermore tackle how the idea of a 'brown' national identity – made up of native Americans, Iberians and enslaved Africans – runs through both the plays and the essays written by Suassuna.

Mateus Logi Segatto (Universidade Federal de São Carlos, São Carlos / SP, Brazil) / *Chemistry as a Tool for Sustainability: The Case of Agroindustrial Waste in Brazil*

The development of biorefinery models, using novel green and sustainable processes to transform biomass derived from waste flows into valuable products, is of great importance to achieve sustainability as means of UN's Sustainable Development Goals (SDGs). This is especially important for the countries that have their economy based on agricultural production, such as Brazil. However, is it economically feasible? How can we implement such models without increasing the environmental footprint of the food supply chain? Chemistry has many answers to this and other questions regarding a sustainable present and future. In this work, we discuss the main potentialities regarding a fully integrated use of agro-industrial feedstocks in Brazil through chemical processes, generating minimum waste and adding value to the country's main economic activity. The main potential sources for biorefinery development in Brazil will be presented, as well as the main particularities, advantages and disadvantages of using such strategy. A study on the extraction of valuable compounds from Brazilian fruit waste using alternative solvents and greener extraction methods to boost the development, design and implementation of green and sustainable biorefineries will be presented. Chemometric tools can be used to design the experiments, evaluate the results and find optimum parameters with minimum number of experiments, guaranteeing minimum use of chemical reactants and solvents in the research step.

Homogenizer-Assisted Extraction (HAE), Microwave-Assisted Extraction (MAE) and Matrix Solid-Phase Dispersion (MSPD) were used as fast, easy and reliable methodologies to extract bioactive compounds from mango (*Mangifera indica*) processing residues. Box-Behnken and Doehlert experimental designs were used, considering particular parameters for each technique. Calibration curves were prepared for both mangiferin and hyperoside, important bioactive compounds found in mango processing waste. Extracts were analyzed using UHPLC-UV and the results were assessed using Response Surface Methodology (RSM).

Rudolf von Sinner (Pontifícia Universidade Católica do Paraná, Curitiba / PR, Brazil) / Populism and "The People": Precarities and Polarizations. A Theological Perspective

Two main elements pervade the argument. First, I argue that both 'populism' and 'the people' are precarious concepts that can neither easily be defined, nor easily be claimed by any representative. I hold this to be true both in political and in theological terms, empirically referring to the civil and the religious population and their construction as 'a people', respectively. Second, in view of a common disregard for the people, namely as *plebs*, I reaffirm the importance of participatory popular subjects as a necessary part of both the political system and Christian communities. This bibliographical and conceptual essay contextualizes and explains the precariousness of realities and concepts, then analyses the concepts of populism and 'people'. It seeks to deepen the discussion of populism by means of dialogue with Ernesto Laclau and Chantal Mouffe, and then through a theological reflection by way of a public theology.

Paulo Astor Soethe (Universidade Federal do Paraná, Curitiba / PR, Brazil) / Alexander von Humboldt's Ideas about Slavery and Social Inequality: Echoes in Brazil

Brazil's relationship with Alexander von Humboldt, like its perception by the Brazilian public sphere, is fractured, sparse and marked by unsuccessful events. The reappraisal of the relatively few direct points of contact between Brazil and Humboldt in the literature to date is related to the Prussian scholar's determined commitment to a humane-diverse, preferably just structuring of new societies and the development of an aesthetically clear-sighted, internationally oriented historical consciousness in the sciences. One of the now classic examples of German-Brazilian literary transfers, the comparison between "Das Sklavenschiff" (1854) by Heinrich Heine (1797-1856) and "O navio negreiro" (1868) by Castro Alves (1847-1871) comes into a new light through the inclusion of insights from interdisciplinary Humboldt research: Humboldt's discussion of the question of slavery in the transareal space between Brazil and German-speaking Europe provides strong impulses for a

rectification of the significance of Humboldt's life and work in the cultural and literary history of the country today.

Luiz Gustavo da Cunha de Souza (Unversidade Federal de Santa Catarina, Florianópolis / SC, Brazil) / *Slavery as a thorn in liberalism. Political ideas and ideology in 19th Century Brazil*

All over the 19th Century, political elites in Brazil have presented themselves as liberal. Yet, the Brazilian economy was almost entirely based upon the use of enslaved labour. This seeming contradiction prompted Brazilian literary critic Roberto Schwarz to write an influential essay on the "ideas out of place". Schwarz's argument proposed an interpretation of the "ideological comedy" of Brazilian Liberalism as related to the different conditions upon which liberal ideologies blossomed during the 19th century in the country. As a result, elites were often able to exercise uncompromised relations, which were often symbolic violent, with other free members of society, whereas the relation of both to the enslaved population was of direct violence. So, the most striking feature of 19th Century Liberalism in Brazil was precisely its ability to coexist with slavery.

It was the late suppression of slavery that, according to a classical study by sociologist Florestan Fernandes, precluded the proper integration of the black in Brazilian Society, rather than subsuming these part of the population to an inferior role in the "white world", that is, a world constructed by and through the eyes of the white. Aspects of that submission are mainly observed in education and the labour market, but also the permanent exclusion of black people from political and intellectual positions in Brazil. Among the socio-economic effects of slavery, then, one could point out that it left also an insurmountable thorn in the consolidation of civil, political, and social rights in Brazil. Citizenship rights, in general, have been only partially established due to the silencing of the concerned groups throughout the historical process of granting individual and subjective rights to people over the 20th century.

This paper aims to proceed backwards, beginning with a critical diagnosis of the situation of the black Brazilian population during the 20th century, then relating it to some interpretations of the 19th-century slavery question, it will try to establish a connection between the lack of equal treatment for black people in Brazil concerning the establishment of public recognition and the limits of citizenship in a liberal society. Finally, it will point out some recent interpretations of black intellectuals and social movements as early as the 19th century, as a contribution to an alternative path into liberal citizenship.

Rodrigo Souza (Universidade Federal do Rio de Janeiro, Rio de Janeiro / RJ, Brazil) / *Continuous-Flow Approach Towards Synthetic CBD*

Recently, CBD was included in some countries as an antiepileptic product for compassionate use in children with refractory epilepsy. With the growth in the demand of CBD, comes a need for high purity-grade cannabinoids for the emerging market. The discovery and development of approaches toward cannabidiol synthesis have emerged from the extraction of the cannabis plants to cannabinoid fermentation in brewer's yeast successfully. Here in we present our approach towards synthetic CBD by means fo continuous-flow protocol.

Paulo Cruz Terra (Universidade Federal Fluminense, Niterói / RJ, Brazil) / *Current Trends in Slavery Studies in Brazil*

The purpose is to present some key points of the event organized by the Bonn Center of Dependency and Slavery Studies on new trends in Brazilian slavery studies, which reunited Brazilian researchers on December 10 and 11 last year. Therefore, the objective is to insert the current trends presented there in a broader picture of the development of slavery studies in Brazil. In this sense, some of the current trends are, for example, the gender approach, the study of artistic productions on slavery, or the global perspective.

Omar Ribeiro Thomaz (Universidade Estadual de Campinas, Campinas / SP, Brazil) /
O pensamento haitiano em três tempos: a liberdade como vocação / Haitian Thought
in Three Moments: Freedom as Vocation

A independência do Haiti no dia 1º de janeiro de 1804 supôs o impensável: um processo revolucionário levado adiante por negros escravizados e libertos que culminou com a expulsão do colonizador francês e a fundação de um novo país. Mas, impensável para quem? O silenciamento deliberado construído em torno da revolução haitiana teve como contrapartida uma poderosa tradição de pensamento que encontra sua gênese na extraordinária declaração de independência. Enfrentaremos esta tradição a partir de três momentos que, estruturados em torno das noções de "história", "raça" e "cultura", mobilizaram os pensadores haitianos como Beaubrun Ardouin (1796–1865), Thomas Madiou (1814–1884), Anténor Firmin (1850–1911) e Jean Price-Mars (1876–1969). A leitura dos clássicos do pensamento haitiano nos permite encontrar uma poderosa tradição crítica, antirracista e profundamente humanista cujas raízes encontram-se num bem-sucedido processo revolucionário.

The independence of Haiti on January 1, 1804 assumed the unthinkable: a revolutionary process carried out by enslaved and freed blacks that culminated in the expulsion of the French colonizer and the foundation of a new country. But unthinkable for whom? The deliberate silencing built around the Haitian revolution was matched by a powerful tradition of thought that finds its genesis in the extraordinary declaration of independence. We will face this tradition from three moments that, structured around the notions of "history", "race" and "culture", mobilized Haitian thinkers such as Beaubrun Ardouin (1796–1865), Thomas Madiou (1814–1884), Anténor Firmin (1850–1911) and Jean Price-Mars (1876–1969). Reading the classics of Haitian thought allows us to find a powerful critical, anti-racist and profoundly humanist tradition whose roots lie in a successful revolutionary process.

Gonzalo Humberto Tinajeros Arce (Universidade de Brasília, Brasília / DF, Brazil) / Indian Law: Modalities of Freedom and Modalities of Serfdom to the Indigenous People in Charcas-Bolivia. Inquire to the Philosophical and Political Arguments of Juan de Solórzano Pereira (1575–1655)

Juan de Solórzano Pereira (1575–1655) was a scholastic thinker of the Ibero-American baroque period and who lived for two decades in the Spanish West Indies (Perú and Bolivia), where he elaborated and systematized the Indian Law, *De Indiarum iure*, a systematic and erudite political-legal body that compiled laws as well as royal prerogatives and warrants. They were destined to beacon government issues in the Spanish West Indies, and determined legal and political modalities to express freedom conditions and serfdom conditions to the indigenous people in colonial city Charcas – Bolivia.

Ana Carolina Torquato Pinto da Silva (Universidade Federal do Paraná, Curitiba / PR, Brazil) / Scientific Racism in 19th and Early 20th Century Brazilian Literature: Humans Portrayed as Animals

This presentation focuses on the analysis of Brazilian literary texts that portray humans of different racial and social background using animal characteristics. The people who are often referred to as animals in literature are black, caboclo, indigenous, pardos, the poor and inhabitants of the Brazilian wilderness. Animal characteristics appear to depict them as less human or even inhuman to legitimize the power dynamics which is established since the arrival of the Europeans in Brazilian territory. Such animalized descriptions have been detected in earlier Brazilian literature dating from the 17th and 18th century, but which have found their strength and 'scientific' basis on the roots of scientific racism. This study focuses on the analysis of the following literary texts *O Cortiço* (1890) by Aluísio de Azevedo, *Vidas Secas* (1938) by Graciliano Ramos, *O Quinze* (1931) by Rachel de Queiroz to discuss examples of the representation of certain humans as lower beings in the 19th and the 20th century. At this point in history, such representation is a response to the racial theories that rapidly spread around Brazil and the world and had a full impact

on future generations. These theories entailed the idea of biological determinism, superiority, and inferiority of races, as well as cognitive and genetic supremacy. Racial theories rapidly infiltrated Brazilian universities, anthropological societies, and other scientific institutions as well as the fictional world. Works by Francis Galton, Louis Agassiz, and Joseph Arthur de Gobineau which advocate racial superiority and eugenics are examined as part of the proposed study. In addition, we address the time that Agassiz and Gobineau, for instance, spent in Brazil and their comments on the Brazilian racial panorama that followed their visit.

Emmanuel I. Unuabonah (African Center of Excellence for Water and Environmental Research, Redeemer's University, Ede, Odun State – Nigeria) / *Developing Low Cost Functional Material for Photocatalytic Degradation of Emerging Pollutants in Water*

Currently, the presence of pharmaceutical chemicals (PCs) and endocrine-disrupting chemicals (ECDs) in water is attracting the interest of researchers and scientists globally due to their potential environmental impact and harmful health implications to humans. While PCs in water are known to contribute to antibiotic resistance, endocrine disrupting chemicals have been associated with an increase in endometriosis, fibroid, testicular and breast cancer, in humans, abnormal reproductive processes, infertility, behavioral and reproductive organ modification etc. This presentation reports effort to develop low-cost functional materials as photocatalytic composites from sustainable sources like clay and agrowaste materials. Photocatalytic composite materials prepared were fully characterized with FE-SEM, EDX, ATR-FTIR, XPS, UV-VIS, PL etc and were found to be efficient in not only degrading these chemicals in water but also mineralizing them to a reasonable extent. The mechanism and photocatalytic specie(s) responsible for photocatalysis are also provided. The rate of photodegradation of the PCs was comparably fast, leading to high removal capacity. The concentrations of inorganic ions (NH_4^+) released as by-products of photodegradation, were far below WHO standard limits for their presence in drinking water. These photocatalytic composites have potentials for use in the treatment of drinking water on a large scale.

William Gomes Vale (Universidade Estadual do Ceará, Laboratório de Fisiologia e Controle da Reprodução, Programa de Pós-Graduação em Ciências Veterinárias, Fortaleza / CE, Brasil) / *The Possibilities of Sustained Integration between Brazil, Germany, and Africa in the Animal Milk Production Systems*

Milk was and will be an essential food for the development and security of the human being, regardless of race, color or creed. The demand for milk in developing countries is expected to increase by 25 percent between 2008 to 2025 (FAO, 2008). In developing countries small-scale livestock holders supply the vast majority of this milk, and dairy animals provide household food security and a means of fast returns for them. About 180–200 million people belong to pastoral societies that raise livestock using natural rangelands as the main forage. These rangelands are in deserts, mountains and steppes – land that cannot be cultivated or used for agricultural purposes – and cover almost 25 percent of the world's land surface (Degen, 2007). The pastoralists traditionally keep more than one species of livestock in order to make the most of the rangelands, as some species are mainly grazers (e.g. sheep and cattle or cattle and buffalo), while others are better browsers (e.g. goats and camels). Diversifying in this manner also reduces risk from disease or extreme environmental conditions. FAO considers that the establishment of controlled animal production systems is necessary for sustainable livestock production. Economic growth is accompanied by an increase in consumption of animal products. However among the globe continents Africa presents a series of gaps in the animal production patterns, especially in the milk for human nutrition. Furthermore milk is an important source of cash and nutrients for many households in developing countries. Yet, the understanding of the role of dairy production in livelihoods and nutritional outcomes is hindered by the lack of modern technologies and quality household survey data. Data on milk off-take for human consumption are difficult to collect in household surveys for several reasons that make accurate recall challenging for the respondent (continuous production and seasonality, among others). Then, in the majority of countries in the major challenge is how to ensure that smallholder farmer families can participate in and benefit from dairy-industry development. Moreover, dairy animals can be a source of farm power and very importantly for leather, fur, animal

traction and also provide manure that is used as fertilizer for crops or as fuel. Ensuring that dairy-industry programs are inclusive of smallholders thus has significant food-security and poverty-reduction implications, and there is increasing evidence that there can be a significant benefit for women in the household in many instances. Looking to the different geographical sub-regions in Africa - Northern, Western, Central, Eastern and Southern, in the Northern and Southern sub-regions milk production in Northern takes place through three main actors: 1) subsistence micro- farmers who contribute with the largest share of milk in the Egyptian market, 2) traditional small and medium breeders and 3) a limited number of specialized and modern commercial farms that import foreign breeds of cattle, like "Holstein" and buffalo milk in the case of Egypt. The dairy value chain in Egypt and the neighbouring countries penetrates deep within rural communities and constitutes an indispensable component of the rural economy and the livelihoods of farmers and micro and small-scale dairy producers. In these Northern countries, 70 percent of whole milk is processed into dairy products; the by-products of these processes (p ex. skim milk, buttermilk and whey) are used either for feed or are manufactured into other dairy products, p ex. dry skim milk and low-fat cheese. Processed milk and dairy products are often supplemented with vitamins, mineral and various additives. Also South Africa, Mozambique and Namibia have achieve high technification although Namibia's dairy industry is in dire straits following a surge of cheap South African UHT-treated milk products into the market, which has resulted in Namibia Dairies making financial losses for the past two years. Other countries like Nigeria and Angola that although they have cattle, sheep and goat herds, suffer from a lack of organization in the production and distribution chain. The other countries of the Central and Western sub-region have several problems in the milk production chain, aggravated by the problem of Namode populations, especially in the sub-Saharan areas.

Raquel Riciati do Couto Vilela (Universidade de São Paulo, São Paulo / SP, Brazil) / Luminescent Materials Based on Coordination Compounds: New Chemical Designs for Sustainable Energy Conversion

The growing demand for fossil fuels and the direct environmental impact caused by their combustion exert increasing pressure on the infrastructure of global energy production and consumption, significantly boosting research into green and renewable technologies. In this sense, molecular devices designed to target energy conversion such as organic light-emitting diodes (OLEDs), light-emitting electrochemical cells (LEECs), and dye-sensitized solar cells (DSC), are ascending renewable technologies that stand out as promising strategies to reduce pollution and as alternative energy sources. The improvement of these technologies aiming the production of more efficient devices involves the careful selection of new chemical compounds and materials with adequate characteristics. Organic dyes and coordination compounds are among the most interesting candidates to generate efficient emission in the visible spectral region and to promote energy conversion. Particularly, the triplet emitting complexes based on Ir(III) and Pt(II) have attracted much attention for their high quantum yields and fairly low excited state lifetimes. Although these molecules are usually characterized in solution, their application in practical devices requires the development of tailored solid state materials. Taking advantage of host-guest strategies we have been developing a series of luminescent materials based on inorganic and hybrid sol-gel materials with excellent photophysical properties. In this talk we will give an overview of these approaches and results.

Ibrahim Maina Waziri (Centre for Trans-Saharan Studies, University of Maiduguri, Nigeria) / Tripartite Sustainable International Relations and the Fight against Dependency, Pandemic, and Slavery in the 21st Century: Analyses of the Brazil, German and Nigerian Cooperation

The paper examines Brazil, Germany, and Nigerian international relations for sustainable peace, good governance, and appropriate human development nationally

and internationally. The study also explores those synergic strategy of these countries in the South-North-South economic, political, and social geo-political cooperation. This is to show how they are tackling 21st century problems, like poverty, insecurity, and underdevelopment towards promoting sustainability for human progress and development.

Ronja Wollnik (Leuphana University of Lüneburg, Germany) / Constructing a Circular Bioeconomy: The Role of Green and Sustainable Analytical Chemistry in the Context of Food-Processing Waste

In the face of pressing socio-economic and environmental challenges, the concept of a circular bioeconomy has emerged as a promising paradigm that is attracting significant public, private and research interest. Reference to circularity principles can be found, among others, in Sustainable Development Goals, in particular Goal 12, calling for responsible consumption and production, the European Union Circular Economy Action Plan as part of the European Green Deal, and the work of the Ellen MacArthur Foundation. Where the circular economy is aimed at slowing down, narrowing and closing resource loops, the bioeconomy offers the possibility to substitute fossil-based, non-renewable and non-biodegradable materials with renewable and biodegradable solutions. This synergy is expressed in the term circular bioeconomy, which is the sum of all activities that transform biomass for use in different product streams such as materials, chemicals, biofuels and food. Certain elements of the bioeconomy go beyond the objectives of a circular economy, including the replacement of technical non-biodegradable materials by biological ones, which reintegrate into the biosphere (European Commission, 2017).

Agricultural wastes, co-products and by-products (AWCB's) are an important resource for constructing a circular bioeconomy. The most prevalent AWCB in the European Union is fruit pomace, a solid by-product from juice production (European Commission, 2020). Valorizing these side streams can be achieved in biorefineries, where different types of AWCB's are transformed into materials, platform chemicals, and biofuels in biological and (thermo-) chemical processes. Within this range of products, bioactive compounds are considered a product with a high added value.

Phenolic bioactive compounds are applied in food, medical and pharmaceutical industries due to their antiviral, antibacterial, antioxidant, anti-carcinogenic and anti-inflammatory properties. These compounds can be extracted from fruit pomace by conventional and non-conventional extraction techniques as part of an integrated biorefinery (Tsegaye et al., 2021).

Apples are the most important fruit for juice production in Germany, with over 1,1 million tons of apples harvested per year and 7 liters of apple juice consumed per capita per year. The apple juice production generates 0,25 million tons of apple pomace in Germany per year. Thus, in this work, the green and sustainable extraction of polyphenols from apple pomace is going to be discussed, focusing on non-conventional extraction methods (Zuin Zeidler & Ramin, 2018). After the homogenization of frozen apple pomace samples with 70 % (v/v) aqueous ethanol as solvent, microwave-assisted extraction, ultrasound-assisted extraction and ultraturrax-assisted extraction techniques will be compared in terms of polyphenol profiles and quantities, energy requirements, and other sustainable chemistry criteria. A possible integration of the extraction step into a biorefinery process is going to be highlighted in the context of achieving a circular bioeconomy.

Michael Max Paul Zeuske (University of Cologne and Bonn Center for Dependency and Slavery Studies, Germany) / *Slavery: A History of Humankind – A History of Latin America*

I will speak on the following topics: an introduction (a bit of historiography) and in the main part about: plateaus of historical slavery spaces; the evidence of these plateaus in Atlantic slavery (AAA – Africa-Atlantic America) and in the history of the Americas as well as some remarks on Second Slavery worldwide.

Vânia G. Zuin Zeidler (Universidade Federal de São Carlos, São Carlos / SP, Brazil; Leuphana University of Lüneburg, Germany) / *Towards More Sustainable Curricula*

If chemistry is to contribute effectively to the development of a more sustainable

world, it is essential that it is taught within a broader socioeconomic and ecological context.

