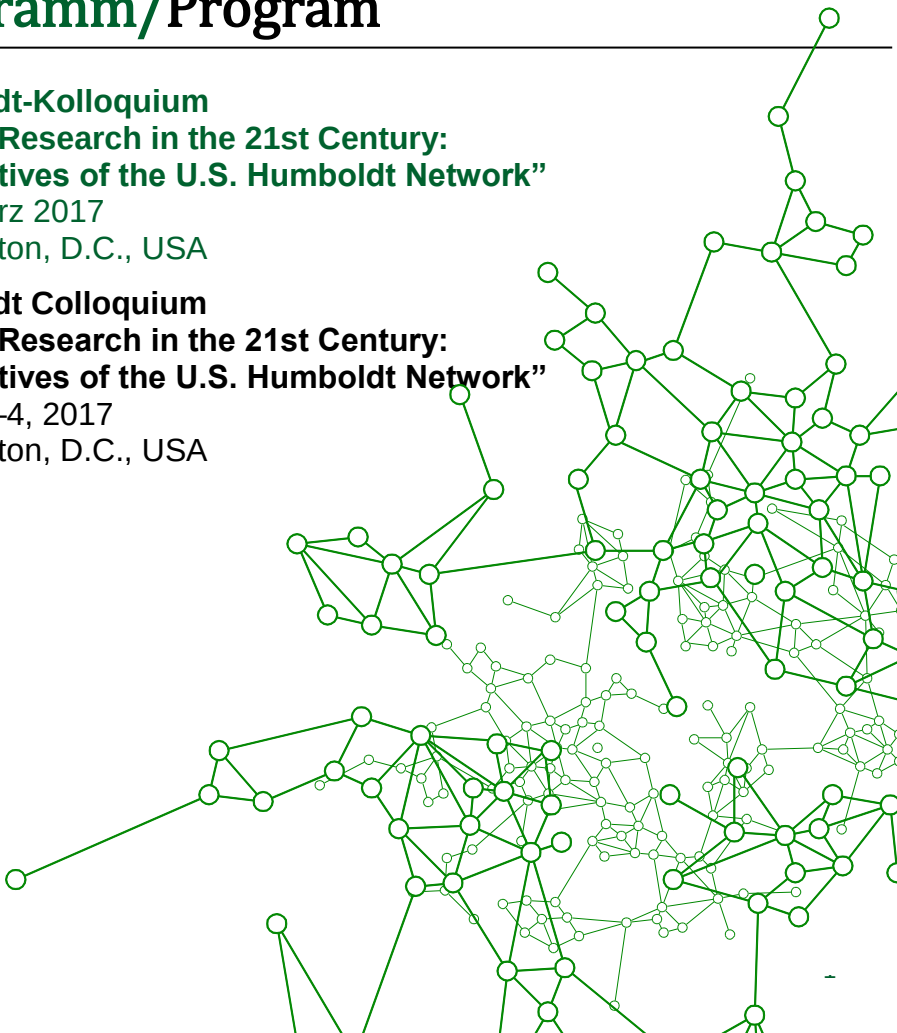
Alexander von Humboldt
Stiftung/Foundation

Programm/Program

Humboldt-Kolloquium
“Global Research in the 21st Century:
Perspectives of the U.S. Humboldt Network”
2.–4. März 2017
Washington, D.C., USA

Humboldt Colloquium
“Global Research in the 21st Century:
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March 2–4, 2017
Washington, D.C., USA



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In Kooperation mit / in cooperation with:

The National Academies of SCIENCES ENGINEERING MEDICINE

American Friends of the ALEXANDER VON HUMBOLDT FOUNDATION

DAAD Deutscher Akademischer Austausch Dienst German Academic Exchange Service

DFG Deutsche Forschungsgemeinschaft

Vorwort

Sehr geehrte Konferenzteilnehmer, liebe Humboldtianer, verehrte Gäste,

die Alexander von Humboldt-Stiftung fördert die akademische Zusammenarbeit hervorragender Wissenschaftlerinnen und Wissenschaftler aus Deutschland und Ländern in der ganzen Welt. Sie verleiht pro Jahr mehr als 700 Forschungsstipendien und Forschungspreise an Einzelpersonen, die damit auf Lebenszeit Mitglied einer internationalen Gemeinschaft von Spitzenforschern werden, dem „Humboldt-Netzwerk". Derzeit leben rund 5.000 „Humboldtianer" in den Vereinigten Staaten, viele davon in führenden Positionen an Universitäten, in Forschungseinrichtungen und anderen Institutionen im ganzen Land. Als Humboldtianer teilen sie die gemeinsame Erfahrung der transatlantischen Forschungszusammenarbeit mit Deutschland und spielen eine bedeutende Rolle in Bezug auf die Ansätze zur Globalisierung der akademischen Bildung und der Forschung in den Vereinigten Staaten und Deutschland.

Mit diesem Humboldt-Kolloquium möchte die Alexander von Humboldt-Stiftung das fundierte Fachwissen des Humboldt-Netzwerks in den Vereinigten Staaten würdigen und Mitgliedern des Netzwerks aus unterschiedlichen Bereichen und Generationen die Gelegenheit zu einem Dialog über die folgenden Schlüsselthemen der internationalen Zusammenarbeit und Internationalisierung bieten: Wo stehen die Vereinigten Staaten und Deutschland in Bezug auf ihre Beteiligung am globalen Streben nach Wissen? Was können die beiden Länder voneinander lernen? Wie können Forschungseinrichtungen, -organisationen und -gemeinschaften auf beiden Seiten des Atlantiks von der Expertise des Humboldt-Netzwerks profitieren, um die Chancen der Globalisierung zu nutzen und sich ihren Herausforderungen zu stellen?

Wir freuen uns sehr, dass Humboldtianer aus Forschungseinrichtungen quer durch die Vereinigten Staaten ebenso wie in den USA ansässige Nachwuchswissenschaftler zu den Teilnehmenden an unserer Tagung zählen. Letztere haben sich über einen öffentlichen Aufruf um die Teilnahme beworben. Die jungen Wissenschaftlerinnen und Wissenschaftler werden die Zukunft der transatlantischen Forschungspartnerschaft mitgestalten. Ihnen gilt daher ein besonders herzliches Willkommen.

Mein Dank gilt allen Personen und Einrichtungen, die die Vorbereitung der Tagung tatkräftig unterstützt haben, insbesondere dem Vorstand der US-amerikanischen Partnerorganisation „American Friends of the Alexander von Humboldt Foundation", der uns stets mit Rat und Tat zur Seite stand, den National Academies of Sciences, Engineering and Medicine, der deutschen Botschaft und unseren deutschen Partnerorganisationen, namentlich der Deutschen Forschungsgemeinschaft und dem Deutschen Akademischen Austauschdienst. Des Weiteren danke ich allen Vortragenden, Sitzungsleitern und Moderatoren für ihren jeweiligen Beitrag zum Programm und allen Teilnehmern für ihre Zusage und Mitwirkung.

Editorial

Dear Conference Participants, dear Humboldtians, dear Guests,

The Alexander von Humboldt Foundation promotes academic cooperation between excellent scientists and scholars from Germany and countries around the world. To this end, it grants more than 700 research fellowships and research awards annually to individual researchers who become life-long members of an international community of distinguished researchers, the so-called “Humboldt Network”. Roughly 5,000 “Humboldtians” are currently based in the United States, many of them in leading positions at universities, research organizations and other institutions across the country. As Humboldtians, they share the common experience of transatlantic research collaboration with Germany, and they are critical catalysts of approaches to the globalization of higher education and research in the United States and Germany.

With this Humboldt Colloquium, the Alexander von Humboldt Foundation seeks to recognize the profound expertise of the Humboldt community in the United States, bringing members of the network from different fields and generations together for a dialogue on key topics of international cooperation and internationalization: Where do the United States and Germany stand with respect to participation in the global quest for knowledge? What can the two countries learn from each other? How can research institutions, organizations, communities on both sides of the Atlantic benefit from the expertise of the Humboldt Network as they face the opportunities and challenges of globalization?

We are very pleased that our conference participants include Humboldtians from research institutions across the United States as well as U.S. based early career researchers who responded to a call for papers. This young generation of researchers will most certainly help shape the future of the transatlantic research partnership, and I therefore wish to extend a special welcome to them.

I wish to thank all individuals and institutions who provided valuable support in the preparation of the meeting, especially the Board of Directors of the American Friends of the Alexander von Humboldt Foundation, who were always available for consultation and advice, the National Academies of Sciences, Engineering and Medicine, the German Embassy, and our German partner organizations, the German Research Foundation and German Academic Exchange Service. I also wish to thank all speakers, session chairs and presenters for their contributions to the program and all participants for accepting our invitation.

Ein Humboldt-Kolloquium in den Vereinigten Staaten ist ein recht seltenes Ereignis. Wir hoffen, dass das diesjährige Treffen des Humboldt-Netzwerks in diesem Land weit über diese Konferenz hinaus nachwirken wird. Wir ermuntern alle Teilnehmer, neue Kontakte zu knüpfen und sich einzubringen und so zu Pflege und Ausbau der Forschungspartnerschaft unserer Länder und des aktiven Humboldt-Netzwerks in den kommenden Jahren beizutragen. Mit dieser Vision im Blick wünsche ich uns allen eine wunderbare Tagung!



Präsident der Alexander von Humboldt-Stiftung

A Humboldt Colloquium in the United States is a rather rare event. We hope that the impact of this year's gathering on the Humboldt community in this country will reach far beyond the actual conference. We encourage all participants to make new contacts and to get involved, helping to sustain and expand the research partnership between our countries and the active community of Humboldtians in future years to come. With this vision, I wish us all a splendid meeting!



President of the Alexander von Humboldt Foundation

Programm

Donnerstag, 2. März 2017

12:00-15:30 Uhr	Anmeldung der Teilnehmenden	National Academies Building 2101 Constitution Avenue
14:00 Uhr	**Informationsvorträge:** **Funding Opportunities for Research Collaborations with Germany** Dr. Barbara Sheldon Alexander von Humboldt-Stiftung Peter Kerrigan Deutscher Akademischer Austauschdienst Bettina Schuffert Deutsche Forschungsgemeinschaft	Auditorium
16:00 Uhr	**Eröffnung** **Begrüßungsansprachen** Professor Dr. C. Daniel Mote, Jr. Präsident der National Academy of Engineering Professor Dr. Helmut Schwarz Präsident der Alexander von Humboldt-Stiftung Dr. Peter Wittig Botschafter der Bundesrepublik Deutschland in den Vereinigten Staaten	Auditorium

Program

Thursday, March 2, 2017

12:00-3:30 p.m.	Registration of the participants	National Academies Building 2101 Constitution Avenue
2:00 p.m.	**Information Session:** **Funding Opportunities for Research Collaborations with Germany** Dr. Barbara Sheldon Alexander von Humboldt Foundation Peter Kerrigan German Academic Exchange Service Bettina Schuffert German Research Foundation	Auditorium
4:00 p.m.	**Opening Ceremony** **Welcome Addresses** Professor Dr. C. Daniel Mote, Jr. President of the National Academy of Engineering Professor Dr. Helmut Schwarz President of the Alexander von Humboldt Foundation Dr. Peter Wittig Ambassador of the Federal Republic of Germany to the United States	Auditorium

	Festvorträge Professor Dr. Wolfgang Ketterle Massachusetts Institute of Technology, Cambridge, MA, USA „Personal Perspectives of Basic Research – Germany, Humboldt, Einstein and Absolute Zero Temperature” Professorin Dr. Sharon Jeanette Macdonald Humboldt-Universität zu Berlin, Deutschland „Making Differences in Berlin“
anschließend	**Empfang** auf gemeinsame Einladung der National Academies, des Botschafters der Bundesrepublik Deutschland in den Vereinigten Staaten und der Alexander von Humboldt-Stiftung

	Keynote Lectures Professor Dr. Wolfgang Ketterle Massachusetts Institute of Technology, Cambridge, MA, USA “Personal Perspectives of Basic Research – Germany, Humboldt, Einstein and Absolute Zero Temperature” Professor Dr. Sharon Jeanette Macdonald Humboldt-Universität zu Berlin, Germany “Making Differences in Berlin“
followed by	**Reception** on joint invitation of the National Academies, the Ambassador of the Federal Republic of Germany to the United States and the Alexander von Humboldt Foundation

Freitag, 3. März 2017

9.00 Uhr	**Plenum: Transatlantic Perspectives on Global Research: What can the United States and Germany learn from each other?** Moderation: Dr. Cathleen Fisher American Friends of the Alexander von Humboldt Foundation Professor Dr. Steven V.W. Beckwith University of California, Berkeley, CA, USA Michelle Müntefering Mitglied des Deutschen Bundestages, Berlin, Deutschland Dr. Vaughan Turekian Berater für Forschung und Technologie im Außenministerium, USA Professorin Dr. Kathrin Zippel Northeastern University, Boston, MA, USA	Renaissance Washington, D.C. Downtown Hotel Raum Renaissance West
10:00 Uhr	Kaffee-/Tee- und Netzwerkpause	Foyer
10:30 Uhr	**Spotlight on Current Research and International Research Collaborations: Parallel Workshops with Presentations by Participants (s. S. 22)**	
	Fachgruppe 1: **Literatur, Sprachen, Kultur, Philosophie** Moderation: Professorin Dr. Claudia Olk Freie Universität Berlin, Deutschland Co-Moderation: Professorin Dr. Mary Oleskiewicz University of Massachusetts, Boston, MA, USA	Raum 2

Friday, March 3, 2017

9:00 a.m.	**Plenary Session: Transatlantic Perspectives on Global Research: What can the United States and Germany learn from each other?** Chair: Dr. Cathleen Fisher American Friends of the Alexander von Humboldt Foundation Professor Dr. Steven V.W. Beckwith University of California, Berkeley, CA, USA Michelle Müntefering Member of the German Bundestag, Berlin, Germany Dr. Vaughan Turekian Science and Technology Adviser to the Secretary of State, USA Professor Dr. Kathrin Zippel Northeastern University, Boston, MA, USA	Renaissance Washington, D.C. Downtown Hotel Room Renaissance Wes
10:00 a.m.	Coffee/Tea and Networking Break	Foyer
10:30 a.m.	**Spotlight on Current Research and International Research Collaborations: Parallel Workshops with Presentations by Participant (see p. 22)**	
	Section 1: **Literature, Languages, Culture, Philosophy** Chair: Professor Dr. Claudia Olk Free University of Berlin, Germany Co-Chair: Professor Dr. Mary Oleskiewicz University of Massachusetts, Boston, MA, USA	Room 2

Fachgruppe 2: Raum 3
Geschichte, Recht, Wirtschaft, Gesellschaft
Moderation:
Professorin Dr. Andrea Lenschow
Universität Osnabrück, Deutschland
Co-Moderation:
Professorin Dr. Louise Karen Davidson-Schmich
University of Miami, FL, USA

Fachgruppe 3: Raum 4
Gesundheits- und Lebenswissenschaften
Moderation:
Professorin Dr. Leena Bruckner-Tuderman
Universitätsklinikum Freiburg, Deutschland
Co-Moderation:
Professorin Dr. Anamaris Colberg-Poley,
Children's National Health System, Washington, D.C., USA

Fachgruppe 4: Raum 5
Chemie
Moderation:
Professor Dr. Oliver Seitz
Humboldt-Universität zu Berlin, Deutschland
Co-Moderation:
Professor Dr. Gregory H. Robinson,
The University of Georgia, Athens, GA, USA

Fachgruppe 5: Raum 10
Physik, Geowissenschaften
Moderation:
Professor Dr. Rudolf O. Gross
Walther-Meißner-Institut für Tieftemperaturforschung und
Technische Universität München, Deutschland
Co-Moderation:
Professor Dr. Royce King-Ping Zia
Virginia Polytechnic Institute and State University, Blacksburg, VA, USA

Section 2: Room 3
History, Law, Economics, Society
Chair:
Professor Dr. Andrea Lenschow
University of Osnabrück, Germany
Co-Chair:
Professor Dr. Louise Karen Davidson-Schmich
University of Miami, FL, USA

Section 3: Room 4
Health, Life Sciences
Chair:
Professor Dr. Leena Bruckner-Tuderman
University Medical Center Freiburg, Germany
Co-Chair:
Professor Dr. Anamaris Colberg-Poley
Children's National Health System, Washington, D.C., USA

Section 4: Room 5
Chemistry
Chair:
Professor Dr. Oliver Seitz
Humboldt-Universität zu Berlin, Germany
Co-Chair:
Professor Dr. Gregory H. Robinson
The University of Georgia, Athens, GA, USA

Section 5: Room 10
Physics, Geosciences
Chair:
Professor Dr. Rudolf O. Gross
Walther-Meißner-Institute for Low Temperature Research and
Technical University of Munich, Germany
Co-Chair:
Professor Dr. Royce King-Ping Zia
Virginia Polytechnic Institute and State University, Blacksburg, VA, USA

Fachgruppe 6: Raum 12
Ingenieurwissenschaften, Mathematik
Moderation:

	Professor Dr. Stefan Müller Hausdorff Center for Mathematics, Universität Bonn, Deutschland Co-Moderation: Professor Dr. Matthew Allen Grayson Northwestern University, Evanston, IL, USA	
12:30 Uhr	**Mittagessen**	Congressional Ballroom
14:00 Uhr	**Plenum: Building Research Careers and Partnerships in an Era of Global Science: What Impact Does International Experience Have on Career Paths and Opportunities?** Moderation: Dr. Steffen Mehlich Leiter der Abteilung Förderung und Netzwerk Alexander von Humboldt-Stiftung Professorin Dr. Therese Cory University of Notre Dame, IN, USA „Old Texts, New Networks: Insights from a Stay in Germany" Professor Dr. Brian S. Mitchell Tulane University, New Orleans, LA, USA „Evaluating International Research Experiences"	Raum Renaissance West
15:00 Uhr	**Poster- und Netzwerk-Session** (siehe S. 27-37) mit Kaffee- und Teepause	Renaissance Ballroom und Foyer
16:30 Uhr	**Spotlight on Current Research and International Research Collaborations: Parallel Workshops with Presentations by Participants continued**	Räume wie am Vormittag
19:00 Uhr	**Abendessen mit Tischrede** Professor Dr. Myles Jackson New York University, NY, USA	Renaissance Ballroom

	Section 6: **Engineering, Mathematics** Chair: Professor Dr. Stefan Müller Hausdorff Center for Mathematics, University of Bonn, Germany Co-Chair: Professor Dr. Matthew Allen Grayson Northwestern University, Evanston, IL, USA	Room 12
12:30 p.m.	**Lunch**	Congressional Ballroom
2:00 p.m.	**Plenary Session: Building Research Careers and Partnerships in an Era of Global Science: What Impact Does International Experience Have on Career Paths and Opportunities?** Chair: Dr. Steffen Mehlich Head of Department Sponsorship and Network Alexander von Humboldt-Foundation Professor Dr. Therese Cory University of Notre Dame, IN, USA "Old Texts, New Networks: Insights from a Stay in Germany" Professor Dr. Brian S. Mitchell Tulane University, New Orleans, LA, USA "Evaluating International Research Experiences"	Room Renaissance West
3:00 p.m.	**Poster and Networking Session** (see p. 27-37) including Coffee and Tea	Renaissance Ballroom and Foyer
4:30 p.m.	**Spotlight on Current Research and International Research Collaborations: Parallel Workshops with Presentations by Participants continued**	Rooms as in the morning

7:00 p.m.	**Conference Dinner and Dinner Speech** Professor Dr. Myles Jackson New York University, NY, USA	Renaissance Ballroom

Samstag, 4. März 2017

9:30 Uhr	**Plenum:** **From Transatlantic to Trilateral Cooperation: How Can the International Humboldt Network Contribute to Sustainable Global Research Partnerships?** Moderation: Dr. Thomas Hesse Stellvertretender Generalsekretär Alexander von Humboldt-Stiftung Rebecca Keiser National Science Foundation, Arlington, VA, USA Dr. Heather G. Marco University of Cape Town, Südafrika Professor Dr. Jacob Kehinde Olupona Harvard University, Cambridge, MA, USA	Renaissance Washington, D.C. Downtown Hotel Raum Renaissance We
10:30 Uhr	Kaffee-/Tee- und Netzwerkpause	Foyer
11:00 Uhr	**World Café und Abschlussplenum:** **Visions and Strategies for Future Engagemei** **of U.S. Humboldtians (siehe S. 38)** Moderation: Dr. Ulrike Albrecht Leiterin Abteilung Strategie und Außenbeziehungen Alexander von Humboldt-Stiftung Eric Koenig American Friends of the Alexander von Humboldt Foundation World Café-Moderatorin: Dr. Katrin Amian Leiterin des Referats Nordamerika, Australien, Neuseeland, Ozeanien Alexander von Humboldt-Stiftung	Raum Renaissance Eas

Saturday, March 4, 2017

9:30 a.m.	**Plenary Session:** **From Transatlantic to Trilateral Cooperation: How Can the International Humboldt Network Contribute to Sustainable Global Research Partnerships?** Chair: Dr. Thomas Hesse Deputy Secretary General Alexander von Humboldt Foundation Rebecca Keiser National Science Foundation, Arlington, VA, USA Dr. Heather G. Marco University of Cape Town, South Africa Professor Dr. Jacob Kehinde Olupona Harvard University, Cambridge, MA, USA	Renaissance Washington, D.C. Downtown Hotel Room Renaissance We
10:30 a.m.	Coffee/Tea and Networking Break	Foyer
11:00 a.m.	**World Café and Closing Plenary Session:** **Visions and Strategies for Future Engagement of U.S. Humboldtians (see page 38 for details)** Chairs: Dr. Ulrike Albrecht Head of Department Strategy and External Relations Alexander von Humboldt Foundation Eric Koenig American Friends of the Alexander von Humboldt Foundation World Café Moderator: Dr. Katrin Amian Head of Division North America, Australia, New Zealand, Oceania Alexander von Humboldt Foundation	Room Renaissance East

	Rapporteure: Professor Dr. Joseph S. Francisco University of Nebraska, Lincoln, NE, USA Professor Dr. Matthias Vorwerk Catholic University of America, Washington, D.C., USA	
anschließend	**Schlussworte** Professor Dr. Helmut Schwarz Präsident der Alexander von Humboldt-Stiftung	Raum Renaissance
ca. 13:00 Uhr	Abschiedsessen	Foyer

	Rapporteurs: Professor Dr. Joseph S. Francisco University of Nebraska, Lincoln, NE, USA Professor Dr. Matthias Vorwerk Catholic University of America, Washington, D.C., USA	
followed by	**Concluding Remarks** Professor Dr. Helmut Schwarz President of the Alexander von Humboldt Foundat	Room Renaissance
ca 1:00 p.m.	Farewell Lunch	Foyer

Interdisziplinäre Workshops mit Präsentationen der Teilnehmenden /

Interdisciplinary Workshops with Presentations by Participants

In den interdisziplinären Workshops sollen die aktuellen Forschungsarbeiten von Humboldt-Alumni und Nachwuchswissenschaftlerinnen und Nachwuchswissenschaftlern in sechs definierten interdisziplinären Bereichen in den Mittelpunkt gestellt werden. Darüber hinaus bieten die Workshops ein Forum, um über aktuelle Forschungstrends, die wissenschaftliche Zusammenarbeit zwischen den USA und Deutschland sowie Möglichkeiten der Forschungsfinanzierung zu diskutieren. Alle Teilnehmenden – Humboldt-Alumni, Nachwuchswissenschaftlerinnen und -wissenschaftler und Gäste – sind eingeladen, bei diesen Workshops mitzuwirken.

The aim of the interdisciplinary workshops is to spotlight current research by Humboldt alumni and early career researchers in six loosely defined interdisciplinary areas. The workshops also provide a platform for discussing trends in current research, research collaboration between the United States and Germany as well as research funding. All participants – Humboldt alumni, early career researchers and guests – are invited to attend these workshops.

Fachgruppe 1 **Section 1**	**Literatur, Sprachen, Kultur, Philosophie** **Literature, Languages, Culture, Philosophy**	**Raum / Room 2**

Chairs:
Professor Dr. Claudia Olk, Free University of Berlin, Germany
Professor Dr. Mary Oleskiewicz, University of Massachusetts, Boston, MA, USA

Presentations:
Prof. Dr. Timothy O. Benson, Los Angeles County Museum of Art, CA, USA
"World War I: The Global Media War - An International Research Collaboration"

Prof. Dr. Jocelyn Holland, University of California, Santa Barbara, CA, USA
"The Complex History of a Simple Tool: The Lever as Instrument of Reason"

Dr. Hannah Eldridge, University of Wisconsin, Madison, WI, USA
"The Claims of Meter: 1750, 1870, 1990"

Prof. Dr. Martin Camargo, University of Illinois at Urbana-Champaign, IL, USA
"Rhetoric in Late Medieval Oxford"

Dr. Cameron Buckner, University of Houston, TX, USA
"Can Nonhuman Animals Understand that Others Have Minds? An Update from Recent Philosophical and Experimental Research"

Prof. Dr. Svetoslava Slaveva-Griffin, Florida State University, Tallahassee, FL, USA
"Thinking about the Body Globally"

Prof. Dr. Stephen Matthew Brockmann, Carnegie Mellon University, Pittsburgh, PA, USA
"New Developments in German Cinema Studies"

James Howell, University of Arizona, Tucson, AZ, USA
"Alexander von Humboldt and the Changing Landscape of Memory Studies"

Fachgruppe 2 **Geschichte, Recht, Wirtschaft, Gesellschaft** **Raum / Room 3**
Section 2 **History, Law, Economics, Society**

Chairs:
Professor Dr. Andrea Lenschow, Osnabrück University, Germany
Professor Dr. Louise Karen Davidson-Schmich, University of Miami, FL, USA

Presentations:
Prof. Dr. Hannah Luise Buxbaum, Indiana University, Bloomington, IN, USA
"Mapping the Multinational Enterprise: The Challenges of Regulating Cross-Border Corporate Activity"

Prof. Dr. Joyce Marie Mushaben, University of Missouri, St. Louis, MO, USA
"Becoming Madam Chancellor: Angela Merkel and the Berlin Republic"

Dr. Christina Xydias, Clarkson University, Potsdam, NY, USA
"The Conservative Woman: A Comparative Study of Germany and the United States"

Prof. Dr. Eric Andrew Kurlander, Stetson University, Deland, FL, USA
"Writing a Global (Transnational) History of Modern Germany in Global (Transnational) Collaboration"

Prof. Dr. Robert M. Entman, George Washington University, Washington, D.C., USA
"Inequality, Asymmetric Partisanship and Media Biases"

Dr. Ayca Arkilic, The University of Texas at Austin / Huston-Tillotson University, Austin, TX, USA
"Between the Homeland and Host States: Turkey's Diaspora Policies and Immigrant Political Participation in France and Germany"

Prof. Dr. Christoph Dominik Güss, University of North Florida, Jacksonville, FL, USA
"Creativity Across Cultures"

Prof. Dr. Manfred Diehl, Colorado State University, Fort Collins, CO, USA
"Changing Negative Views on Aging as a Psychological Mechanism to Motivate Healthy Aging"

Fachgruppe 3 **Gesundheits- und Lebenswissenschaften** **Raum / Room 4**
Section 3 **Health, Life Sciences**

Chairs:
Professor Dr. Leena Bruckner-Tuderman, University Medical Center Freiburg, Germany
Professor Dr. Anamaris Colberg-Poley, Children's National Health System, Washington, USA

Presentations:

Prof. Dr. Timothy George Bromage, New York University, NY, USA
"Why I Make More Sense on Tuesdays: Non-Linear Discovery-Based Metabolic Research Explains How Life Works"

Prof. Dr. Ingo Schlupp, University of Oklahoma, Norman, OK, USA
"Social Context and Decision Making in an All-Female Species of Fish, the Amazon Molly"

Prof. Dr. N. Louise Glass, University of California, Berkeley, CA, USA
"The Small World of Microbial Communication"

Krishna Mudumbi, Temple University, Philadelphia, PA, USA
"Super-resolution Study of Nuclear Envelope Transmembrane Protein Transport in Live Cells"

Prof. Dr. Joachim Herz, University of Texas Southwestern Medical Center, Dallas, TX, USA
"Molecular Mechanisms of Neurodegeneration"

Dr. Christiane Wobus, University of Michigan, Ann Arbor, MI, USA
"The Fascinating Biology of the Dreaded Norovirus"

Dr. Lina Cui, University of New Mexico, Albuquerque, NM, USA
"In situ Activation-Reactions toward Early Cancer Detection and Efficacy Monitoring of Cancer Therapies"

Prof. Dr. Richard B. Primack, Boston University, MA, USA
"Using Thoreau's Records and Modern Observations from Concord to Detect the Biology Effects of a Warming Climate"

Fachgruppe 4 **Chemie** **Raum / Room 5**
Section 4 **Chemistry**

Chairs:

Professor Dr. Oliver Seitz, Humboldt-Universität zu Berlin, Germany
Professor Dr. Gregory H. Robinson, The University of Georgia, Athens, GA, USA

Presentations:

Prof. Dr. Sophia Hayes, Washington University, St. Louis, MO, USA
"Solid-state NMR for Materials Chemistry – Cooperative Research Pushes the Cutting Edge in Metal Oxide Thin Films"

Prof. Dr. Rigoberto Hernandez, Johns Hopkins University, Baltimore, MD, USA
"Dynamics in Complex Environments"

Prof. Dr. Frieder Jäkle, Rutgers University, Newark, NJ, USA
"New Conjugated Materials from Organoboron Building Blocks"

Prof. Dr. Rainer Lohmann, University of Rhode Island, Narragansett, RI, USA
"From Humboldt to around the World – Measuring Pollutants in the Waters of the World"

Dr. Amy Peterson, Worcester Polytechnic Institute, MA, USA
"Assembly-Driven Tailoring of Layer-by-Layer Polymer Systems"

Prof. Dr. Anna Krylov, University of Southern California, Los Angeles, CA, USA
"New and old Challenges in Electronic Structure Theory"

Jin Suntivich, Ithaca, NY, USA
"Designing Heterogeneous Catalysts at the Atomic Level"

Dr. Fang Xu, Harvard University, Cambridge, MA, USA
and
Dr. Dario Stacchiola, Brookhaven National Laboratory, Upton, NY, USA
"Catching Catalysis in the Act: In Situ Studies with Microscopy and Spectroscopy"

Fachgruppe 5 **Physik, Geowissenschaften** **Raum / Room 10**
Section 5 **Physics, Geosciences**

Chairs:
Professor Dr. Rudolf O. Gross, Walther-Meißner-Institute for Low Temperature Research and Technical University of Munich, Germany
Professor Dr. Royce King-Ping Zia, Virginia Polytechnic Institute and State University, Arlington, VA, USA

Presentations:

Prof. Dr. Anatoliy Pinchuk, University of Colorado at Colorado Springs, CO, USA
"*Plasmonic Metamaterials for Energy and Bio-Medical Applications*"

Dr. Anne Marie Hofmeister, Washington University, St. Louis, MO, USA
"Spin of the Oblate Spheroid: Geophysical and Astrophysical Applications"

Prof. Dr. Eric Kirby, Oregon State University, Corvallis, OR, USA
"Tectonic and Climatic Interactions during Growth of the Tibetan Plateau"

Prof. Dr. Scott D. King, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA
"What Surface Features on Dwarf Planet Ceres Tell us about its Formation and Evolution"

Arianna Soldati, University of Missouri, Columbia, MO, USA
"*The Rheology of the 2010 Basalts of Piton de la Fournaise"*

Dr. Hendrik Bluhm, Lawrence Berkeley National Laboratory, CA, USA
"Chemical and Potential Imaging across Liquid/Solid Interfaces"

Dr. Natalia Drichko, Johns Hopkins University, Baltimore, MA, USA
"What Can We Learn about Frustrated Magnets Using Inelastic Light Scattering"

Prof. Dr. Thomas W. Baumgarte, Bowdoin College, Brunswick, ME, USA
"Critical Phenomena in Gravitational Collapse to Black Holes"

Fachgruppe 6 **Section 6**	**Ingenieurwissenschaften, Mathematik** **Engineering, Mathematics**	**Raum / Room 12**

Chairs:
Professor Dr. Stefan Müller, Hausdorff Center for Mathematics, University of Bonn, Germany
Professor Dr. Matthew Allen Grayson, Northwestern University, Evanston, IL, USA

Presentations:

Prof. Dr. Tarek El-Ghazawi, George Washington University, Washington, D.C., USA
"Rethinking Supercomputing"

Prof. Dr. Dieter Fox, University of Washington, Seattle, WA, USA
"Toward Robots that Understand People and their Environment"

Prof. Dr. Ralph Martin Kaufmann, Purdue University, West Lafayette, IN, USA
"Abstract Structures in Mathematics and their Applications"

Prof. Dr. Andrey V. Kuznetsov, North Carolina State University, Raleigh, NC, USA
"Uncovering Mysteries of Left-Right Symmetry Breaking in Mammals"

Dr. Steven Harvey, National Renewable Energy Laboratory, Golden, CO, USA
"*Time of Flight Secondary Ion Mass Spectrometry: A Versatile Technique for Probing Organic and Inorganic Materials at Nano-, Micro-, and Macroscopic Length Scales*"

Prof. Dr. Kathy Lu, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA
"Polymer Derived Ceramics and a World of Possibilities on Research, Education, and Friendship"

Dr. Natalie Rudolph, University of Wisconsin, Madison, WI, USA
"Additive Manufacturing of Composites"

Dr. Jessica Bickel, Cleveland State University, OH, USA
"Driving Polymer Crystallization via Surface Reconstructions"

Poster-Session / Poster Session

Neben den Posterpräsentationen von Humboldt-Alumni sowie Nachwuchswissenschaftlerinnen und Nachwuchswissenschaftlern bietet die Poster-Session Gelegenheit zum Netzwerken und für individuelle Gespräche zwischen allen Teilnehmenden. Zusätzlich sind Vertreter von Forschungsförderorganisationen anwesend, die Informationen und Ratschläge zu Förderprogrammen sowohl für die individuelle Förderung als auch für Wissenschaftskooperationen auf allen Stufen der wissenschaftlichen Laufbahn geben können.

The session will feature poster presentations by Humboldt alumni and early career researchers and will provide an opportunity for networking and individual conversations. Representatives of funding organizations will be present to provide information and advice on funding schemes for individual sponsorship and research collaborations at all career levels.

Fachgruppe 1 **Section 1**	**Literatur, Sprachen, Kultur, Philosophie** **Literature, Languages, Culture, Philosophy**
P 01	Dr. Cinzia Arruzza, The New School for Social Research, New York City, NY, USA "*Ancient Philosophy and Contemporary Politics*"
P 02	Prof. Dr. Marina F. Bykova, North Carolina State University at Raleigh, Raleigh, NC, USA "*Bildung and Its Meaning in German Idealism*"
P 03	Prof. Dr. Olga Dobrunova, United States Naval Academy, Annapolis, MD, USA "*Modality in Russian and Development of Students' Cultural and Pragmatic Competence*"
P 04	Dr. Hannah Eldridge, University of Wisconsin-Madison, Madison, WI, USA "*Picturing Meter: 1750, 1870, 1990*"
P 05	Prof. Dr. Leila Gomez, University of Colorado at Boulder, Boulder, CO, USA "*The Invention of Mexico: Foreign Travelers and the Building of a Nation (1799-2004*)"
P 06	Prof. Dr. Jocelyn Holland, University of California, Santa Barbara, CA, USA "*The Complex History of a Simple Tool: The Lever as Instrument of Reason*"
P 07	Prof. Dr. Jennifer Knust, Boston University, Boston, MA, USA "*There is No Bible: Material Bibles from the Dead Sea Scrolls to the Museum of the Bible*"
P 08	Prof. Dr. Paul Livingston, University of New Mexico, Albuquerque, NM, USA "*Ontological and Temporal Realism*"

P 09	Prof. Dr. Shaka McGlotten, State University of New York, Purchase, NY, USA "*The Political Aesthetics of Drag*"
P 10	Prof. Dr. Mary Oleskiewicz, University of Massachusetts, Boston, MA, USA "*The Exquisite Music Rooms and Keyboard Instruments of King Frederick 'the Great'"*
P 11	Dr. Lara Ostaric, Temple University, Philadelphia, PA, USA "*Critique of Judgment and the Unity of Kant's Critical System*"
P 12	Prof. Dr. David Pan, University of California, Irvine, CA, USA "*Global Kleist: Possibilities and Pitfalls of Navigating Across Public Spheres*"
P 13	Prof. Dr. Damani James Partridge, University of Michigan, Ann Arbor, MI, USA "*Refugee Futures, Holocaust Memory, and Germany as a Moral Actor in Europe and the World*"
P 14	Prof. Dr. Daniel Leonhard Purdy, Pennsylvania State University, University Park, PA, USA "*The European City, Urban Design, and Migration*"
P 15	Dr. Gwen Robbins Schug, Appalachian State University, Boone, NC, USA "*Lessons from the Past? Climate and Culture Changes in the Third Millennium BC of South Asia*"
P 16	Prof. Dr. Liliane Weissberg, University of Pennsylvania, Philadelphia, PA, USA "*German-Jewish Studies Between the Continents*"
P 17	Dr. Holly Yanacek, University of Pittsburgh, Pittsburgh, PA, USA "*Rethinking Feeling in* Fin-de-siècle *German Literature*"
P 18	Dr. Andreas Thomas Zanker, Amherst College, Amherst, MA, USA "*A Collaborative Conference and Volume*"

Fachgruppe 2 **Section 2**	**Geschichte, Recht, Wirtschaft, Gesellschaft** **History, Law, Economics, Society**

P 19	Prof. Dr. Martha W. Alibali, University of Wisconsin-Madison, Madison, WI, USA "*Children's and Adults' Interpretation of Covariation Data*"
P 20	Prof. Dr. Margarita M. Balmaceda, Seton Hall University, South Orange, NJ, USA "*Chains of Value, Chains of Power: Russian Energy, Value Chains and the Remaking of Social Relations from Vladivostok to Brussels*"

P 21 Prof. Dr. William A. Barbieri, Catholic University of America, Washington, D.C., USA
"*The Formation of Normative Orders in Comparative Perspective*"

P 22 Dr. Douglas Block, University of Pittsburgh, Pittsburgh, PA, USA
"*Public Security and Politics in Developing Countries*"

P 23 Dr. Emma Briant, George Washington University, Washington, D.C., USA
"*Competing propagandas: Russian and US mutual representation of propaganda efforts*"

P 24 Prof. Dr. Manfred Diehl, Colorado State University, Fort Collins, CO, USA
"*AgingPLUS: Changing Negative Views on Aging Using a Psychoeducational Program*"

P 25 Dr. Ethan Evans, University of California, Davis, Santa Cruz, CA, USA
"*U.S. Health Care Reform: Sharing Lessons with Transatlantic Partners*"

P 26 Prof. Dr. Erin Marie Furtak, University of Colorado at Boulder, Boulder, CO, USA
"*The Formative Assessment Design Cycle:Improving High School Science Teaching Through Research-Practice Partnership*"

P 27 Dr. J. Laurence Hare Jr., University of Arkansas, Fayetteville, AR, USA
"*The Contours of völkisch Research: Transatlantic Investigations*"

P 28 Dr. Marina Henke, Northwestern University, Evanston, IL, USA
"*The Politics of Multilateral Military Coalition-Building*"

P 29 Dr. Gunther Jikeli, Indiana University, Bloomington, IN, USA
"*Exploring Beliefs and Feelings of Syrian Refugees in Germany*"

P 30 Prof. Dr. David Kaplan, University of Wisconsin-Madison, Madison, WI, USA
"*The Future of Quantitative Inquiry in the Social and Behavioral Sciences*"

P 31 Prof. Dr. Arpad von Klimo, Catholic University of America, Washington, D.C., USA
"*Global Anti-Communism during Detente (1971-75). Cardinal Mindszenty and his Followers in three Continents*"

P 32 Prof. Dr. Beth E. Kurtz-Costes, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA
"*Racial Climate Perceptions and Valuing of Inter-Race Contact: Intergenerational Patterns of Racial Socialization*"

P 33 Dr. Stephen Lazer, University of Nevada, Reno, NV, USA
"*Alsace as a Fractured Borderland*"

P 34 Prof. Dr. Heikki E. Lempa, Moravian College, Bethlehem, PA, USA
"*Emotions and Material Interests. Selling German Spas, 1820-1914*"

P 35	Prof. Dr. James R. Maxeiner, University of Baltimore, Baltimore, MD, USA "*Failures of American Lawmaking in Historical and Comparative Perspectives*"
P 36	Dr. Patrick Nold, State University of New York at Albany, Albany, NY, USA "*Researching the Medieval Papacy*"
P 37	Dr. Malliga Och, Idaho State University, Pocatello, ID, USA "*Gender Equality in Christian Democratic Parties. Feminist Advances and the Christian Democratic Union in Germany*"
P 38	Prof. Dr. Thomas Pegelow Kaplan, Appalachian State University, Boone, NC, USA "*Entreaties for Survival: Trans-European and Global Jewish Petitioning Practices During the Holocaust*"
P 39	Prof. Dr. Tricia Striano, Hunter College, New York, NY, USA "*The Humboltian Way: Doing Developmental Research*"
P 40	Prof. Dr. Timothy William Waters, Indiana University, Bloomington, IN, USA "*The Uses of Secrecy in War Crimes Trials*"
P 41	Prof. Dr. Steven Todd Wuhs, University of Redlands, Redlands, CA, USA "*Place Dependence in German Politics*"
P 42	Prof. Dr. Kathrin Zippel, Northeastern University, Boston, MA, USA "*Women in Global Science*"

Fachgruppe 3 **Section 3**	**Gesundheits- und Lebenswissenschaften** **Health, Life Sciences**

P 43	Dr. Isabel Beerman, National Institute of Aging, Baltimore, MD, USA "*Age-Associated Clonal Dominance of Myeloid-Biased HSC is Underwritten by Unique Transcriptional and Epigenetic Alterations*"
P 44	Dr. Jennifer Bradham, Vanderbilt University, Nashville, TN, USA "*Influence of Animal Movement on Habitat Use and Ecosystem Sustainability in the Neotropics*"
P 45	Dr. Justin Bredlau, Virginia Commonwealth University, Richmond, VA, USA "*Evolving Isolation Mechanisms among Incipient Species of Parasitic Wasps*"
P 46	Prof. Dr. R. Michael Burger, Lehigh University, Bethlehem, PA, USA "*Tonotopic Differentiation in the Cochlear Nucleus*"

P 47 Prof. Dr. Margit Burmeister, University of Michigan, Ann Arbor, MI, USA
"*Nature vs. Nurture Revisited: Genes Interact with and are Modified by the Environment*"

P 48 Prof. Dr. Anamaris Colberg-Poley, Children's National Medical Center, Washington, D.C., USA
"*Multidisciplinary Approaches to Study Inter-Organelle Contacts between the Endoplasmic Reticulum and the Outer Mitochondrial Membrane*"

P 49 Prof. Dr. Trisha N. Davis, University of Washington, Seattle, WA, USA
"*Kinetochores get a Grip: A tale of two Rings*"

P 50 Prof. Dr. Claudia Fischbach-Teschl, Cornell University, Ithaca, NY, USA
"*Engineering Approaches to Analyze Tumor-Associated ECM Dynamics*"

P 51 Dr. Cecilia Gabriela Flocco, Harvard University, Cambridge, MA, USA
"*International Partnerships Contribute Solutions to Global Challenges: Polar Research as a Model*"

P 52 Dr. Martin Haesemeyer, Harvard University, Cambridge, MA, USA
"*Sensorimotor Transformations Underlying Heat Perception in Larval Zebrafish*"

P 53 Prof. Dr. Joachim Herz, University of Texas Southwestern Medical Center at Dallas, TX, USA
"*Molecular Mechanisms of Atherosclerosis*"

P 54 Prof. Dr. Andreas Holzenburg, University of Texas Rio Grande Valley, Harlingen, TX, USA
"*Thinking Green across the Scales and Disciplines*"

P 55 Prof. Dr. Min Jun Kim, Drexel University, Philadelphia, PA, USA
"*Biologically Inspired Microscale Robotic Systems for Biology and Medicine*"

P 56 Dr. Ivan Korendovych, Syracuse University, Syracuse, NY, USA
"*De novo Design of Catalytic Function*"

P 57 Prof. Dr. Meena Kumari, Kansas State University, Manhattan, KS, USA
"*Insight into Alcohol Addiction-Role of NMDA Receptors*"

P 58 Prof. Dr. Dr. Kevin V. Lemley, Childrens Hospital Los Angeles, Los Angeles, CA, USA
"*Restoring Filtration Barrier Integrity in the Renal Glomerulus*"

P 59 Dr. Edwin Li, Saint Josephs University, Philadelphia, PA, USA
"*Understanding the Mechanism of Mucin 1 Dimerization*"

P 60 Kate McGrath, The George Washington University, Washington, D.C., USA
"*Quantifying Linear Enamel Hypoplasia in Wild Virunga Mountain Gorillas and other Great Apes*"

P 61 Prof. Dr. Robert M.L. McKay, Bowling Green State University, Bowling Green, OH, USA
"*Rivers as Sources of Ice Nucleating Particles to the Atmosphere*"

P 62 Dr. Thoralf Meyer, University of Texas, Austin, TX, USA
"*Assessment of Multiple Drivers Determining Savanna Species Composition, Structure, Response and Management*"

P 63 Krishna Mudumbi, Temple University, Philadelphia, PA, USA
"*Super-Resolution Study of Nuclear Envelope Transmembrane Protein Transport in Live Cells*"

P 64 Dr. Catherine E. Ovitt, University of Rochester, Rochester, NY, USA
"*Homeostasis and Regeneration of Exocrine Glands in the Head and Neck*"

P 65 Kendra Phelps, Texas Tech University, Lubbock, TX, USA
"*Correlates of Cave-Roosting Bat Diversity as an Effective Tool to Identify Priority Caves*"

P 66 Dr. Judith H. Prieto, Western Connecticut State University, Danbury, CT, USA
"*The Binding of Methylene Blue to Plasmodium Falciparum Glutathione Reductase*"

P 67 Dr. Anne-Katrin Pröbstel, University of California, San Francisco, CA, USA
"*The Gut-Brain Axis in Multiple Sclerosis: Understanding how Bacteria in the Gut Relate to an Autoimmune Attack in the Brain*"

P 68 Dr. Douglas Scott Richardson, Harvard University, Cambridge, MA, USA
"*Optical and Computational Challenges of Cleared Tissue Imaging*"

P 69 Dr. Vishal Saxena, University of Southern California, Los Angeles, CA, USA
"*The+DO2:DO147 Effect of Doping Ions Concentration on the Performance of Fe: ZnSe Mid-Infrared Laser Material*"

P 70 Dr. Ubaldo Soto, Loma Linda University, Loma Linda, CA, USA
"*Role of Alpha-6 Integrin in Cancer Stem Cell Plasticity*"

P 71 Prof. Dr. Eric John Sundberg, University of Maryland, Baltimore, MD, USA
"*Defining the Molecular Basis of Helicobacter Pylori-Mediated Gastric Cancer*"

P 72 Dr. Kirsten Traynor, University of Maryland, Middletown, MD, USA
"*The Pesticide Exposome: Exploring Risks to Honey Bee Health*"

P 73 Dr. Jennifer Tsuruda, Clemson University, Clemson, SC, USA
"*Improving Honey Bee Genetics and Environmental Conditions to Enhance Agriculture across the Globe*"

P 74 Prof. Dr. Willem F.J. Vermaas, Arizona State University, Tempe, AZ, USA

	"*Cyanobacteria as Solar-Powered Biofactories for Green Chemicals and Biofuels*"
P 75	Dr. David Westenberg, Missouri University of Science and Technology, Rolla, MO, USA "*Novel Antimicrobial Compounds in Agriculture and Medicine*"
P 76	Dr. Evelyn Williams, Chicago Botanic Garden, Glencoe, IL, USA "*How Can Phylogenetics Improve Restoration and Conservation of Natural Ecosystems?*"
P 77	Dr. Bernadette Zamora, University of Florida, Gainesville, FL, USA "*Advancing Research on Human Diseases and Protecting Animal Welfare: Veterinary Roles and Responsibilities*"

Fachgruppe 4 **Section 4**	**Chemie** **Chemistry**
P 78	Prof. Dr. Robert Bachman, University of the South, Sewanee, TN, USA "*Synthesis of Organic-Inorganic Conjugated Dyes for Solar Harvesting*"
P 79	Prof. Dr. Dmitro Bedrov, University of Utah, Salt Lake City, UT, USA "*Multiscale Modeling and Design of Novel Materials*"
P 80	Dr. habil Olga V. Boltalina, Colorado State University, Fort Collins, CO, USA "*Developing Next-Generation of Fluorinated Functional Materials for Organic Electronics through Expanding US-German Collaboration Focusing on Direct Student Engagement*"
P 81	Dr. Jorge A. Boscoboinik, Brookhaven National Laboratory, Upton, NY, USA "*Understanding Porous Materials with the Tools of Surfaces Science*"
P 82	Dr. Jixin Chen, Ohio University, Athens, OH, USA "*Monte Carlo Simulation for smFRET Data Analysis*"
P 83	Dr. Baran Eren, Lawrence Berkeley National Laboratory, Berkeley, CA, USA "*Bridging 'Surface Science' and Catalysis Technology'*"
P 84	Dr. James Ferri, Lafayette College, Easton, PA, USA "*Stimlus-Responsive Interface Design*"
P 85	Dr. Yelena Gorlin, Stanford University, Stanford, CA, USA "*Development of Electrochemical Technologies for Electric Vehicles*"
P 86	Prof. Dr. Brian P. Grady, University of Oklahoma, Norman, OK, USA "*Carbon Nanotubes in Polymers- A Multiyear Collaboration with IPF-Dresden*"
P 87	Prof. Dr. Bernard Earl Kohler, Montana State University, Bozeman, MT, USA

	"*Life in the Light: The Photochemical Properties of DNA and their Role in Minimizing UV Damage*"
P 88	Prof. Dr. Anatoly Kolomeisky, Rice University, Houston, TX, USA "*How Conformational Dynamic Influences the Protein Search on DNA*"
P 89	Prof. Dr. Christopher Y. Li, Drexel University, Philadelphia, PA, USA "*Crystalsome: Robust Polymer Assembly Directed by Curved Liquid/Liquid Interface*"
P 90	Dr. Andreas Mavrantonakis, University of Minnesota, Minneapolis, MI, USA "*Computational Modeling of Adsorption and Separation of Small Molecules in Porous Materials with Open Metal Sites*"
P 91	Dr. Matthew Mills, University of Missouri, Columbia, MO, USA "*High-Valent Iron Species in Water: pH Determines the Product of Chemical and Electrochemical Oxidation*"
P 92	Dr. Amy Peterson, Worcester Polytechnic Institute, Worcester, MA, USA "*Assembly-Driven Tailoring of Layer-by-Layer Polymer Systems*"
P 93	Dr. Kyle N. Plunkett, Southern Illinois University at Carbondale, Carbondale, IL, USA "*Self-Assembly of Hypervalent Iodine Based Materials & New Cyclopenta-fused Polycyclic Aromatic Hydrocarbons*"
P 94	Prof. Dr. Alexander D. Ryabov, Carnegie Mellon University, Pittsburgh, PA, USA "*Latest News on TAML Activators*"
P 95	Dr. Longzhu Shen, Yale University, New Haven, CT, USA "S*afer Chemical Design with Reduced Likelihood to Perturb NRF2-ARE Antioxidant Pathway*"
P 96	Prof. Dr. Paul Van Patten, Middle Tennessee State University, Murfreesboro, TN, USA "*Cation Exchange in Semiconductor Quantum Dots*"
P 97	Dr. Andriy Voronov, North Dakota State University, Fargo, ND, USA *"Polymers from Plant Oils for Paints and Coatings Applications"*
P 98	Prof. Dr. Rory Waterman, University of Vermont, Burlington, VT, USA "*Catalytic Phosphinidene Transfer Reactions*"
P 99	Dr. Qing-Zhi Zhu, Stony Brook University, Stony Brook, NY, USA "*Small Scale Biogeochemical Heterogeneity of the Seafloor Revealed by Planar Optical Sensors*"

Fachgruppe 5	**Physik, Geowissenschaften**
Section 5	**Physics, Geosciences**

P 100 Dr. Andrey Beresnyak, Los Alamos National Laboratory, Los Alamos, NM, USA
"*Magnetohydrodynamics is Space*"

P 101 Prof. Dr. Lincoln D. Carr, Colorado School of Mines, Golden, CO, USA
"*Does Complexity Appear in the Quantum World?*"

P 102 Dr. Richard S. Conroy, National Institutes of Health, Bethesda, VA, USA
"*Support of International Biomedical Research by the National Institute of Biomedical Imaging and Bioengineering*"

P 103 Dr. Timothy Davis, NOAA-Great Lakes Environmental Research Laboratory, Ann Arbor, MI, USA
"*Using Advanced Molecular Techniques to Understand the Environmental Drivers of Cyanobacterial Harmful Algal Bloom Growth and Toxicity in Large Lakes*"

P 104 Prof. Dr. Thomas Fiore, University of Michigan-Dearborn, Dearborn, MI, USA
"*Quasicategories in K-Theory, Musical Transformations*"

P 105 Dr. Thomas H.W. Goebel, University of California, Davis, Santa Cruz, CA, USA
"*The 2016 Mw5.1 Fairview, Oklahoma Earthquakes: Evidence for Long-Range Poroelastic Triggering at >30 km from Disposal Wells*"

P 106 Professor Dr. Matthew Allen Grayson, Northwestern University, Evanston, IL, USA
"*Transverse Thermoelectrics: New Materials to Drive Heat Sideways for Solid-State Refrigeration*"

P 107 Dr. Erik Henriksen, Washington University in St. Louis, Saint Louis, MO, USA
"*Electronic Transport in Adatom-Decorated Graphene*"

P 108 Dr. Anne Marie Hofmeister, Washington University, St. Louis, MO, USA
"*A New Understanding of the Microscopic Basis of Heat Transfer*"

P 109 Dr. David B. Hume, National Institute of Standards and Technology, Boulder, CO, USA
"*Precision Measurements with Trapped Atomic Ions*"

P 110 Dr. John Huntley, University of Missouri-Columbia, Columbia, MI, USA
"*Parasites, Climate Change, and Sea Level Rise: Investigating the Pattern and Process of Increasing Trematode Prevalence during Transgression*"

P 111 Prof. Dr. Wolfgang Ketterle, Massachusetts Institute of Technology, Cambridge, MA, USA
"*Atoms near Absolute Zero Temperature: from Bose-Einstein Condensates to Quantum Simulations*"

P 112 Dr. John Henry Lehman, National Institute of Standards and Technology, Boulder, CO, USA
"*Laser Power Measurements Traceable to the Kilogram*"

P 113 Prof. Dr. Delphis Francis Levia Jr., University of Delaware, Newark, DE, USA
"*The Importance of Stemflow in the Biogeochemical Cycling of Aphid Infested European Beech Saplings*"

P 114 Carrie McDonough, University of Rhode Island, Narragansett, RI, USA
"*Measuring Levels of Persistent Bioaccumulative Toxic Pollutants in Air and Water Using Innovative, Cost Effective Passive Sampling*"

P 115 Prof. Dr. Agnes Mocsy, Pratt Institute, Brooklyn, NY, USA
"*Unique Challenges to Creating an Inclusive Environment in the Culturally Diverse Physics Community*"

P 116 Dr. James Martin Overduin, Towson University, Baltimore, MD, USA
"*The Weight of the Vacuum: Global Perspectives on Dark Energy*"

P 117 Rajesh Panthi, Oklahoma State University, Stillwater, OK, USA
"*Determination of Energy Spectrum of x-Rays Using Attenuation Data*"

P 118 Dr. Mihran Papikian, Pennsylvania State University, University Park, PA, USA
"*Arithmetic of Function Fields*"

P 119 Prof. Dr. Cedomir Petrovic, Brookhaven National Laboratory, Upton, NY, USA
"*Exploratory Synthesis and Novel Materials Discovery*"

P 120 Dr. Igor S. Puchtel, University of Maryland at College Park, College Park, MD, USA
"*Young Earth: A Komatiite Story*"

P 121 Prof. Dr. Gordon Todd Richards, Drexel University, Philadelphia, PA, USA
"*Machine Learning in Preparation for the Large Synoptic Survey Telescope*"

P 122 Dr. Carmen Rovi, Indiana University Bloomington, Bloomington, IN, USA
"*The Signature Modulo 8 of a Fiber Bundle*"

P 123 Tara Selly, University of Missouri, Columbia, MO, USA
"*The Influence of Environmental Gradients on Molluscan Diversity, Community Structure, Body Size, and Predation in a Carbonate Tidal Creek, San Salvador (The Bahamas)*"

P 124 Prof. Dr. Laszlo Szekely, University of South Carolina, Columbia, SC, USA
"*Sperner Multifamilies and Mixed Orthogonal Arrays*"

P 125	Prof. Dr. Steven L. Tait, Indiana University, Bloomington, IN, USA "*Science at the Interface: Collaborative Studies of Functional Molecular Materials at Surfaces*"
P 126	Dr. Oscar Varela, Harvard University, Cambridge, MA, USA "*String Theory: The World from a Ten-dimensional Viewpoint*"
P 127	Prof. Dr. Jianzhong Wu, University of California, Riverside, Riverside, CA, USA "*Theoretical Challenges in Computational Design of Materials and Chemical Products*"
P 128	Dr. Alexander Zakhidov, Southwest Texas State University, San Marcos, TX, USA "*Perovskite Solar Cells: Potentials and Opportunities*"
P 129	Dr. Lin Zhang, Texas A&M University Corpus Christi, Corpus Christi, TX, USA "*Understanding Diagenetic Alteration of Bulk Sediment δ15N Using the Isotopic Composition of Individual Amino Acids and Ammonium*"

Fachgruppe 6 **Section 6**	**Ingenieurwissenschaften, Mathematik** **Engineering, Mathematics**

P 130	Dr. Van Butsic, University of California, Berkeley, CA, USA "*Social and Ecological Impacts of Cannabis Cultivation in California*"
P 131	Prof. Dr. Dieter Fox, University of Washington, Seattle, WA, USA "*Toward Robots that Understand People and their Environment*"
P 132	Dr. Kevin Freedman, University of California, Berkeley/Lawrence Berkeley National Lab, Walnut Creek, CA, USA "*Single Molecule Trapping and Sensing Using a Nanopore*"
P 133	Prof. Dr. David H. Gracias, Johns Hopkins University, Baltimore, MD, USA "*Biopsy with Dust Sized Surgical Tools*"
P 134	Dr. Michael Gross, Wake Forest University, Winston-Salem, NC, USA "*Adsorption Calorimetry, Novel Ceramic Processing, and Solid Oxide Fuel Cells"*
P 135	Dr. Steven Harvey, National Renewable Energy Laboratory, Golden, CO, USA "*Nanoscale Chemical Insight in Materials for Renewable Energy via Time-of-Flight SIMS*"
P 136	Dr. Andrea Maria Hodge, University of Southern California, Los Angeles, CA, USA "*Grain Boundary Engineering at the Nanoscale*"

P 137	Prof. Dr. Katherine Currie Isbister, Polytechnic Institute of New York University, Albany, NY, USA "*How Games Move Us: Emotion by Design*"
P 138	Prof. Dr. Brian S. Mitchell, Tulane University, New Orleans, LA, USA "*Evaluating International Research Experiences*"
P 139	Souransu Nandi, University at Buffalo, SUNY, Buffalo, NY, USA "*Chance Constraint based Design of Controllers for Linear Uncertain Systems*"
P 140	Dr. Gbekeloluwa B. Oguntimein, Morgan State University, Baltimore, MD, USA "*Biosorption Properties of Dried Sunflower Seed Hull*"
P 141	Dr. Wenxiao Pan, University of Wisconsin-Madison, Madison, WI, USA "*Optimizing Discharge Capacity of Lithium-Oxygen Batteries by Design of Air-electrode Porous Structure: Multifidelity Modeling and Optimization*"
P 142	Prof. Dr. Tarunraj Singh, State University of New York at Buffalo, Buffalo, NY, USA "*Regulation of Type 1 Diabetes: Forecasting, Sensing and Control*"
P 143	Prof. Dr. Paul H. Steen, Cornell University, Ithaca, NY, USA "*Droplet Motions Fill a Periodic Table*"
P 144	Prof. Dr. Nader Vossoughian, New York Institute of Technology, New York City, NY, USA "*A History of DIN 4171: Standardization, Forced Labor, and* Fehlerfreiheit"
P 145	Dr. Aifeng Wang, Brookhaven National Laboratory, Upton, NY, USA "*Interlayer Electronic Transport in CaMnBi2 Antiferromagnet*"

The World Café: Visions and Strategies for Future Engagement of U.S. Humboldtians
Saturday, March 4, 2017, 11 a.m.

The Humboldt Network is interdisciplinary, intergenerational, and international. Humboldtians have a passion for research and the experience of transatlantic research collaboration with Germany. The "World Café" is a format for creating a living network of collaborative dialogue on questions that matter to a community. It features a series of structured conversations at small coffee tables, allowing participants to share their individual knowledge and expertise with each other and to work collaboratively as a group towards tangible results of the meeting.

We encourage you strongly to attend this interactive session to help us draw conclusions from the colloquium and to start building bridges from this meeting as a one-time-event

organized by the Foundation to self-initiated and self-organized activities as well as future strategies and initiatives by and for the Humboldt community in the United States. We appreciate your feedback and engagement!

Questions for Discussion

1. What are currently the three most important or urgent problems and questions of internationalization and globalization in science and research?

2. How can the German-American scientific and scholarly community supported by the Alexander von Humboldt Foundation and its network contribute to these issues?

3. Which specific activities would you seek to engage in to advance progress on these issues?

Allgemeine Hinweise

Tagungsorte
2. März 2017:
National Academy of Sciences
2101 Constitution Ave NW,
Washington, D.C. 20418

3.-4. März 2017:
Renaissance Washington DC Downtown Hotel
999 9th Street NW
Washington, D.C. 20001

Hotelbuchung
Für Humboldtianerinnen und Humboldtianer sind Hotelzimmer im Hotel Renaissance Washington DC Downtown verbindlich reserviert. Eine Anmeldebestätigung ging Ihnen per E-Mail zu. Bitte räumen Sie Ihr Zimmer am Abreisetag bis 12:00 Uhr. Sollten Sie eine spätere Abreise wünschen, besprechen Sie dies bitte mit der Hotelrezeption. Bitte beachten Sie, dass Extrakosten (z.B. Telefon, Zimmerservice und Taxifahrten) nicht erstattet werden können.

Mahlzeiten
Frühstück erhalten Sie in der Zeit von 7:30 Uhr bis 9:00 Uhr. Die organisierten Mahlzeiten beginnen am 2. März 2017 mit dem Empfang und enden am 4. März 2017 mit dem Mittagessen.

Fotograf während der Veranstaltung
Die Veranstaltung ist prinzipiell presseöffentlich. Wir möchten Sie außerdem darauf hinweisen, dass Mitarbeiterinnen und Mitarbeiter der Stiftung sowie ein von der Stiftung beauftragter Fotograf während der Veranstaltung Fotos machen werden. Die Fotos werden ggf. im Rahmen der Informations- und Öffentlichkeitsarbeit sowie in dem internen sozialen Netzwerk der Stiftung veröffentlicht. Sie werden nicht zu kommerziellen Zwecken verwendet. Wenn Sie mit der Verwendung von Fotos, auf denen Sie abgebildet sind, nicht einverstanden sind, können Sie bis zum 27. Februar 2017 per E-Mail an Nina.Hafeneger@avh.de widersprechen.

General Information

Conference Venues
March 2, 2017:
National Academy of Sciences
2101 Constitution Ave NW
Washington, D.C. 20418

March 3-4, 2017:
Renaissance Washington DC Downtown Hotel
999 9th Street NW
Washington, D.C. 20001

Hotel Reservation
Hotel rooms are reserved bindingly for Humboldtians at the Hotel Renaissance Washington DC Downtown and have been confirmed by email. Please check out of your room until noon on your day of departure. If you wish to extend your stay, we kindly ask to make your own arrangements with the hotel reception. Please note that all extra charges (e.g. telephone, parking, taxi, room service) are at your own expense.

Meals
Breakfast is available from 7:30 a.m. to 9:00 a.m. Organized meals start with the reception on March 2, 2017 and end with lunch on March 4, 2017.

Photographer during the Conference
In general, the event is open to the press. We would like to inform you that a photographer contracted by the Alexander von Humboldt Foundation as well as employees of the Foundation will be taking photographs during the event. The photographs taken may be published by the Alexander von Humboldt Foundation for the purpose of information and public relations work as well as on the Foundation's internal social network. They will not be used for commercial purposes. If you do not agree with the publication of photographs in which you feature, please inform us no later than February 27, 2017 by sending an email to Nina.Hafeneger@avh.de.

Haftung
Wir weisen darauf hin, dass Ihre Teilnahme auf eigene Verantwortung erfolgt und bitten um Verständnis, dass weder die Alexander von Humboldt-Stiftung noch Conventus Congress-

management & Marketing GmbH für Verluste, Unfälle oder Schäden, gleich welchen Ursprungs, an Personen und Sachen bei der An- und Rückreise sowie während der Veranstaltung haften.

Namensschilder

Bei der Registrierung zur Veranstaltung erhalten Sie ein Namensschild. Bitte tragen Sie dieses während der gesamten Tagung, es erleichtert allen Teilnehmenden das Gespräch miteinander.

So erkennen Sie die Teilnehmenden

Gelb	Forschungspreisträger/-innen
Grün	Alumni-Forschungsstipendiatinnen und -stipendiaten
Hellblau	Nachwuchswissenschaftler/-innen
Grau	Mitglieder der Delegation aus Deutschland
Orange	(Ehe-)Partner/-innen
Weiß	Gäste
Bordeaux	Beschäftigte der Alexander von Humboldt-Stiftung

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Name Tags

Upon registration, you will receive your name tag. Please wear it during the entire meeting, thus it will be easier for all participants to address each other.

How to recognise the participants

Yellow	Research Award Winners
Green	Alumni and Research Fellows
Light Blue	Early Career Researchers
Grey	Member of the Delegation from Germany
Orange	Spouses and Partners
White	Guests
Claret	Staff of the Alexander von Humboldt Foundation

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