



Dear Humboldtians of the Regionalgruppe (RG) Mitte-Nord and guests,

Recent years led us to more digitisation, which now allows us to have virtual meetings with members of our regional group, a group whose centres are otherwise almost too far away from each other for a physical meeting of a few hours.

As announced in December, this time another virtual meeting on Thu., 24 Feb. 2022. Access to the virtual room called "Humboldt Space" is with the help of your internet browser (plus headset and videocam) via the platform wonder.me:

Subject of meeting: DGH RG Mitte-Nord Get-together February

Date/Time: Thu., 24 Feb. 2022, 5:00 PM CET

Link: <https://app.wonder.me?spaceId=dbe09ce8-8b64-4dff-9e8c-52cb810367fe>

I am happy that four current Humboldt fellows in our region offer to give a short presentation of about 10 min plus 5 min of discussion targeted at the mixed audience of current Humboldt fellows and alumni from all disciplines. This time we have subjects ranging from modern electronics to robotics and from climate change to philosophy.

Below, you find the draft agenda for the afternoon. I suggest we all meet after the talks & discussions in the "Humboldt Space": With your avatar, you can walk around, join various discussion groups, meet old friends you know or new folks you like to get acquainted with. If you have suggestions for subjects of discussion in the breakout areas, please send me your ideas and we can define some meeting areas within the "Humboldt Space" and give them a name. Feel free to become familiar with the possibilities of the wonder.me platform, the link already works now.

#### **Draft agenda**

17:00 h Welcome by Jürgen Vogel, Speaker DGH RG Mitte-Nord

17:15 h Alex Wheeler: Icehouse to Hothouse: Climate Change in Deep Time

17:30 h Karabi Biswas: Solid State Fractional Capacitor: A new circuit element

17:45 h Aaron T. Becker: Attractive problems in medical research using Magnetic Robotics

18:00 h Quill R. Kukla: City spaces, pace bias, and the production of disability

18:15 h Discussions & subjects of interest

Possibility to split-up in various areas of the "Humboldt Space" on wonder.me

19:00 h End of virtual Get-together February 2022.

Please find on the next page the miniCVs of our four speakers and short abstracts of their presentation/research work.

Looking forward to our virtual event, have a drink and some munchies ready for the meeting,  
with best regards

Jürgen Vogel



## miniCVs and short abstracts of the presentations of our four speakers on Thu., 24 Feb. 2022:

### - Alex Wheeler

Alex Wheeler is a South African geologist and palynologist. He recently completed his PhD at the University of Queensland in Australia studying the Permian-Triassic mass extinction event. His research interests are broadly directed towards examining changes in palaeofloras, environments and climates in deep time with a particular interest in the terrestrial basins of Gondwana.

#### Abstract:

Approximately 280 million years ago, the Late Palaeozoic Ice Age ended abruptly, leading to the formation of widespread forests and mires across the continent of Gondwana. The resultant coal deposits act as organic archives of this climatic shift. By examining proxies such as the carbon isotope and palynological records within the coal, we can achieve a better understanding of the causes, timing and effects of climatic amelioration events in Earth's distant past.

### - Karabi Biswas

Dr. Karabi Biswas is an Associate Professor in the Electrical Engineering Department, Indian Institute of Technology Kharagpur, India. Her research interests are "Sensor development", "Instrument system design" and "Study of fractional order systems". She is a 2022 AvH Friedrich Wilhelm Bessel Research fellow at Hannover University.

#### Abstract:

The natural phenomenon is better represented by fractional order calculus than the integer calculus. A fractional order element (e. g. fractional capacitor) similar to resistor, capacitor or inductor used in an electronic laboratory will help to model and control the natural phenomenon in a better way.

### - Aaron T. Becker

Aaron T. Becker's passion is robotics & control. His lab manipulates micro-scale swarms with magnetic fields; navigates robotic tools using medical MRIs, electromagnets, and ultrasound; kills mosquitos with drones; searches for oil, and assembles structures with swarms.

#### Abstract:

Magnets are fascinating, in part because they enables us to control objects over a distance. I'll share a few highlights of how we use electromagnets to (1) steer a swarm of ferrous particles through mazes and to (2) turn a millimeter-scale propeller coated with diamond dust into a robot that burrows through human blood clots.

### - Quill R. Kukla

Quill Kukla is Professor of Philosophy and Disability Studies and Senior Research Scholar in the Kennedy Institute of Ethics at Georgetown University, as well as a Humboldt Scholar in the Institut für Philosophie at Leibniz Universität Hannover. Their most recent book is *City Living: How Urban Spaces and Urban Dwellers Make One Another* (Oxford University Press 2021). Their research spans philosophy of language, philosophy of science (especially philosophy of medicine and philosophy of geography), and social epistemology.

#### Abstract:

I will explore how urban spaces have built-in paces. They are defined by and require patterns of movement, or 'place ballets,' which have a materially supported rhythm. In our ableist culture organized around capitalism and productivity, pace is generally maximized and faster paces are valued; those who can't keep up show up as problems or impositions. Pace bias is built into our spaces as well as our psychologies. Material spaces in cities literally produce disability, because people who would not be disabled in a slower paced space cannot keep up. I briefly explore how we can (and cannot) rebuild city spaces around different paces.