

# CLIMATE ENGINEERING RESEARCH SYMPOSIUM 2015

## Current State and Future Perspectives

// Schedule

JULY 9 | 19:00  
PUBLIC EVENT

POINTING  
SCIENCE

July 7 – 10 // 2015 // Berlin

BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES  
BERLIN-BRANDENBURGISCHE AKADEMIE DER WISSENSCHAFTEN

# CLIMATE ENGINEERING RESEARCH SYMPOSIUM 2015

## TUESDAY // JULY 7

**09:00 -12:30 Engaging Pupils in the CE-debate – A Role Play (German only)**

12:00 -13:00 **Snack**

13:00 -13:30 **Welcome remarks**

**13:30 -17:00 Session 1 ‘Scientific Feasibility of Climate Engineering Ideas’**

// Chairs: Thomas Leisner (Karlsruhe Institute of Technology), Klaus Lackner (The Earth Institute Columbia University)

13:30 **Cirrus Cloud Thinning**  
// Jon Egill Kristjansson (University of Oslo)

14:00 **Model Simulations of the Potential for Stratospheric Ozone Loss under Conditions of Enhanced Water Vapour and Sulphate Aerosol**  
// Rolf Müller (Forschungszentrum Jülich)

14:30 **Delivery Systems for SRM**  
// Hugh Hunt (Cambridge University)

15:00 -15:30 **Coffee Break**

15:30 **Low Climate Potentials but large Side-Effects of Terrestrial CO<sub>2</sub> Removal – Insights from Quantitative Model Assessments**  
// Lena Boysen (Potsdam Institute for Climate Impact Research)

16:00 **The Role of Iron during the Open Ocean Dissolution of Olivine in a Simulated CO<sub>2</sub> Removal Experiment**  
// Peter Köhler (Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research)

16:30 **Potential Consequences of Element Release from Enhanced Weathering**  
// Thorben Amann (University of Hamburg)

**17:00 -17:45 Poster Slam**

**17:45 -19:30 Posters from Session 1 + 4\***

*\* small snack and beverages will be provided*



# CLIMATE ENGINEERING RESEARCH SYMPOSIUM 2015

## WEDNESDAY // JULY 8

### 09:00 -12:45 Session 2 'Exploring Climate Engineering Uncertainties'

// Chairs: Gregor Betz (Karlsruhe Institute of Technology), Ulrike Lohmann (ETH Zürich)

09:00 Keynote by Ulrike Lohmann commented by Gregor Betz

09:40 Investigating the Uncertainty of Simulated Climate Engineering

// David Keller (GEOMAR Helmholtz Centre for Ocean Research Kiel)

10:00 Is there a Limit of Sulfate Injections for Climate Engineering?

// Ulrike Niemeier (Max Planck Institute for Meteorology)

10:20 -10:50 Coffee Break

10:50 Exploring the 'Termination Shock'

// Andy Parker (Institute for Advanced Sustainability Studies)

11:10 Atmospheric CO<sub>2</sub> Stabilization by Means of Ocean Alkalinization within the 21st Century

// Miriam Ferrer-Gonzales (Max Planck Institute for Meteorology)

11:30 Synthesizing Uncertainties

// Johannes Lenhard (Bielefeld University)

11:50 Impact of SRM on Preferences for Mitigation by Application of Cultural Cognition

// Matthias Honegger (Perspectives)

### 12:10 -12:30 Poster Slam

12:30 -13:30 Lunch Break

### 13:30 -17:30 Session 3 'Governing Climate Engineering Research, Potential Development and Deployment'

// Chairs: Alexander Proelß (Trier University), Edward A. Parson (Emmett Institute on Climate Change and the Environment)

13:30 Minilateral Governance of Solar Geoengineering

// Joshua Horton (Belfer Center for Science and International Affairs)

14:00 Strategic Conflicts on the Horizon: R&D Incentives for Environmental Technologies

// Daniel Heyen (Heidelberg University)

14:30 Leveraging a Solar Climate Engineering Patent Pool for International Regulation of Field Experiments

// Jesse Reynolds (University of Tilburg)

15:00 A Survey of Dynamic Games in the Exploration of Global Geoengineering Governance

// Welli Cheng (Chinese Academy of Social Sciences)

15:30 -16:00 Coffee Break

16:00 The Role of Human Rights in Considering Climate Engineering Research

// Michael Thompson (Forum for Climate Engineering Assessment)

16:30 Regulation of Radiation Management: Uncertainty and Incentives

// Wilfried Rickels (Kiel Institute for the World Economy)

17:00 Understanding the Slippery Slope Argument against further Climate Engineering Research

// David Morrow (George Mason University)

### 17:30 -18:00 Poster Slam

### 18:00 -19:30 Posters from Session 2, 3 + 5\*

19:30 -20:00 Understanding the Intangible: Perceiving Climate Engineering through Art and Design

// Josh Wodak (The University of New South Wales)

## CLIMATE ENGINEERING RESEARCH SYMPOSIUM 2015

### THURSDAY // JULY 9

**09:00 - 12:30 Session 4 'A Comparative View on Climate Engineering Options and Assessment Metrics'**

// Chairs: Hermann Held (University of Hamburg), Jon Egill Kristjansson (University of Oslo)

09:00 Review of the Climate Impacts of Sulphate Aerosol Injection

// Peter Irvine (Institute for Advanced Sustainability Studies)

09:20 What is the Best Measure of Justice in Climate Engineering Assessment?

// Duncan McLaren (Lancaster University)

09:40 The Normative Evaluation of CE Techniques

// Harald Stelzer (University of Graz)

10:00 Cost-Effective Integrated Mitigation and Solar Radiation Management Scenarios under Uncertainty

// Hermann Held (University of Hamburg)

10:20 - 10:50 Coffee Break

10:50 Simulated Impacts and Side Effects of Multi-Centennial Climate Engineering

// Andreas Oschlies (GEOMAR Helmholtz Centre for Ocean Research Kiel)

11:10 Comparative Assessment of Land-, Ocean-, and Atmosphere-Based Climate Engineering using the Max Planck Institute Earth System Model

// Sebastian Sonntag (Max Planck Institute for Meteorology)

11:30 Climate-Effective Terrestrial Carbon Dioxide Removal could Induce Biogeochemical State Shifts

// Vera Heck (Potsdam Institute for Climate Impact Research)

11:50 Integrated assessment of mitigation and carbon dioxide removal technologies

// Elmar Kriegler (Potsdam Institute for Climate Impact Research)

**12:10 Panel Discussion**

12:30 - 13:30 Lunch Break

**13:30 - 17:45 Session 5 'Perceptions of and Perspectives on Climate Engineering Research and Deployment'**

// Chairs: Katrin Rehdanz (Kiel Institute for the World Economy), Jack Stilgoe (University College London)

13:30 Geoengineering as Collective Experimentation

// Jack Stilgoe (University College London)

14:00 Solar Radiation Management and Intergenerational Equity

// William Burns (American University)

14:30 Climate Intervention in Africa: Perspectives based on Analogies from International Conventions on Response to Climate Change

// Mary Mutiso (Kenyatta University)

15:00 Does Knowledge of Stratospheric Sulphate Injection Change Individual Efforts to Mitigate Climate Change?

// Christine Merk (Kiel Institute for the World Economy)

15:30 - 16:00 Coffee Break

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## THURSDAY // JULY 9

- 16:00 Geoengineering and the Primary Institutions of International Society  
// Olaf Corry (The Open University)
- 16:30 Responsibility and Governance in the Climate Engineering Discourse of Science and Policy  
// Nils Matzner (Alpen-Adria University, Klagenfurt/Vienna/Graz)
- 17:00 What if we could Cure Climate Change?  
// Tim Kruger (University of Oxford)

17:30 Closing Remarks

**17:45-19:00 Light Dinner Snacks**

**19:00 Public Event "Pointing Science"**

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## FRIDAY // JULY 10

**9:00 Preparation 2nd SPP-Phase, Breakout Sessions**  
Please contact the conference office  
for available rooms for ad-hoc meetings.

**9:00 Young Scientist Workshop "Perspective Matters"**






## VENUE

BERLIN-BRANDENBURG ACADEMY OF SCIENCES AND HUMANITIES  
BERLIN-BRANDENBURGISCHE AKADEMIE DER WISSENSCHAFTEN  
// Leibniz Hall

Markgrafenstraße 38 (Entrance: Gendarmenmarkt)  
// 10117 Berlin

 Hausvogteiplatz (U2)

 Französische Straße (U6)

[www.spp-climate-engineering.de](http://www.spp-climate-engineering.de)