

Provisional session title	Corresponding Convenor (s)	Elevator pitch	Format
CE assessment metrics – Comparative, Integrative, Comprehensive	Nadine Mengis, Sebastian Sonntag	<p>To enable fair, comprehensive and comparative decision-making on Climate Engineering, we need to foster a multidisciplinary and integrative selection process for assessment metrics. In this session we want to learn to what extent established climate-change assessment metrics are applicable for Climate Engineering assessment and what kind of extensions are needed. This session aims to foster discussions about approaches to comparatively assess different climate engineering (CE) ideas, both among each other and in the context of mitigation. We encourage contributions that address the following questions:</p> <ul style="list-style-type: none"> <li>• How can effects of SRM and CDR methods be compared with each other and with classical mitigation approaches?</li> <li>• Which indicators are useful for a comprehensive assessment of SRM and CDR methods?</li> <li>• To what extent are structurally new metrics compared to global warming mitigation assessment metrics needed for CE? <ul style="list-style-type: none"> <li>• How can uncertainty be treated explicitly in metrics design?</li> </ul> </li> <li>• What new challenges arise for the assessment process when different CE methods are combined?</li> <li>• How to select indicators for a fair and comprehensive comparison of different CE methods? <ul style="list-style-type: none"> <li>• How to ensure societal relevance of the assessment criteria?</li> <li>• How should stakeholders co-shape the design of metrics?</li> </ul> </li> </ul>	<p>Traditional session format. Starting with a 10min introduction to the topic, followed by 5 speakers , and closed with a short 15min general discussion on the topic.</p> <p>There will be 5 speakers with each 10 min of presentation and 3 min of discussion.</p>
Climate engineering governance: National, subnational, and European law & policy	Jesse Reynolds	<p>Most legal scholarship concerning climate engineering has remained within the international domain. Yet national, subnational, and European law &amp; policy will likely be relevant sooner and will be more applicable. This session will clarify the relationship between these forms of law &amp; policy and climate engineering.</p>	<p>The session would, for the most part, be a traditional panel of 4 to 7 panelists who present their perspective. We intend to allocate at least one-third of the time for questions and discussion.</p>
Social Movements & Climate Engineering Justice from the Periphery	Patrick Taylor Smith	<p>Debate around the justice of geoengineering has often, implicitly or explicitly, assumed the perspective of high-emitting groups that are disproportionately responsible for geoengineering research. We should re-orient our normative thinking regarding climate engineering research, governance, and deployment to include the agency and perspectives of the global South and subaltern groups .We will convene global representatives from diverse social movements to lead intersectional discussions on what geoengineering means for racial and environmental justice, food sovereignty, youth, gender, health and global justice as well as climate justice.</p>	<p>Fishbowl , followed by break-out groups OR 7-14-28 format with 4-6 panelists</p>
Climate engineering: what goes up must come down.	Tim Butler	<p>What goes up must come down. If we pump particles into the stratosphere, how will that effect air quality at the ground level? Solar geoengineering may also reduce the self-cleansing capacity of the near-surface atmosphere, allowing pollution to build up. Alternatively, some aspects of air pollution may actually be reduced.</p>	<p>Campfire Session</p> <p>3-4 presenters will each introduce an aspect of the links between climate engineering and air pollution. Presentations will be restricted to 12 minutes each. Each topic will be given half an hour in total, including 18 minutes for questions to the presenter, which the presenter will be encouraged to turn back at the audience thus opening up a discussion to identify points of disagreement and knowledge gaps. Audience members will have the opportunity to pre-load one powerpoint slide each per topic in cooperation with the session conveners to help make their points during the discussion.</p>

Communicating climate engineering	Holly Buck	Come learn about the challenges of communicating climate engineering — and ways of dealing with them. We'll discuss lessons learned from communicating about climate change and emerging technologies, and how those apply to communicating about climate engineering with different audiences.	TBD
Geoengineering and the Arctic	Ben Kravitz	<p>The Arctic is experiencing some of the most rapid climate change of anywhere in the world. Offsetting these changes has been the explicit target of multiple geoengineering proposals. The potential effects of climate change and geoengineering would impact the people and natural resources of this sensitive region and would have knock-on effects for numerous areas throughout the rest of the world.</p> <p>In this session, we explore the broad scope of geoengineering and the Arctic. We welcome proposals in a wide variety of areas, including technologies that are designed to be deployed in or directly impact the Arctic, natural and social science research on the effects and impacts of geoengineering on the Arctic, and the geopolitical role of the Arctic. Submissions relating to SRM, CDR, or any other category of geoengineering are welcome.</p>	TBD
God(s) and Greenhouse Gases: Religion and Climate Engineering	Forrest Clingerman, Ohio Northern University, USA	Religions have insights on new technologies; don't you wonder what religions may have to say about climate engineering, and whether they would help us ask important questions about this topic? It goes way beyond "playing God" to questions of harmony, agency, and justice.	This will be a "campfire session." The sessions will begin with a few short (5-7 minute) orienting presentations, followed by a period of facilitated discussion. The overall goal of the session is to discuss ways religion might influence climate engineering ethics and policy, and to identify relevant research questions related to religion and climate engineering.
Interdisciplinary aspects of CDR	Nem Vaughan	<p>Methods to remove carbon dioxide from the atmosphere impact on a range of physical and human systems and are intertwined with mitigation and adaptation approaches through land use, food systems, energy policy and water quality. There are a number of trade-offs, implications, risks and opportunities for different CDR methods and approaches that may influence the feasibility of large scale deployment of such techniques. Crucial bottlenecks or co-benefits of particular combinations of CDR, mitigation and adaptation strategies may play a crucial role in realising large scale CDR implementation and are important to identify.</p> <p>This session invites submissions that cover all forms of CDR and a range of disciplinary perspectives from policy to public perceptions to physical science and human system impacts.</p>	TBD
Putting the "Engineering" in Climate Engineering	Ben Kravitz	Modifying Earth's climate is one of the largest proposed activities in history. Designing, constructing, and managing such a large endeavor will require engineering. WE explore what engineering questions there are and how they can inform the science of CE.	We anticipate that this will be a traditional academic session in order to open up the discussion to the community and bring in ideas beyond those that we might already be aware of; this will be followed by a panel discussion to discuss what is missing and what the needs are going forward (with the relative balance between these two dependent on the number of contributions received). We are certainly open to suggestions for alternate formats if the steering committee has suggestions.

Rational Choice and Worst Case Scenarios	Martin Bunzl	If there is one moral argument that looms large against the prospects for Geoengineering it is the Precautionary Principle. In this session, the aim is to put this argument in a broader context in which all “facts” established via the scientific method are always open to falsification and hence cannot be known with certainty.	Standard panel
The Earth System and Carbon Dioxide Removal	David Keller	Scenarios limiting warming to <2°C rely heavily on Carbon Dioxide Removal. Despite this many key questions around potential efficacy, impacts and feedbacks of different proposed CDR methods remain unanswered. Our session explores the response of the Earth System, i.e., the climate system, biosphere, and the carbon cycle, to proposed CDR.	Slightly modified 7-24-28 format.
The economics of climate engineering: The recent past and the road ahead	Daniel Heyen	Economic methods are crucial for for both normative and descriptive assessments of Climate Engineering (both SRM and CDR). This session gives an overview of the current state of economic knowledge and offers room for discussing where the field should move from here.	Traditional session with elements of the Campfire session format
The Geoengineering Model Intercomparison Project: Where have we been and where should we go?	Ben Kravitz	GeoMIP has been quite successful as a model intercomparison project in revealing physical science understanding of the climate system response to idealized climate engineering scenarios. That said, we haven’t answered every question that needs answering, nor do we even necessarily know what all of those questions are. We want to explain to the community what experiments have been conducted so far and what the ongoing experiments are as part of the new Coupled Model Intercomparison Project 6 (CMIP6). We will explain how we chose the specific scenarios, accounting for interesting scientific questions, simplicity in carrying out the experiments, ease of adding new runs on top of previous CMIP runs, and interest in the community. We would like to hear from the rest of the community to figure out whether we’re meeting the CE research field’s needs, and if not, how we can best do that.	The session will open with a couple of brief introductory talks that introduce GeoMIP, why it was created, what it’s done so far, and where it plans to go. We will then open up the discussion to the broader audience to hear ideas as to things GeoMIP could do that would be useful for the transdisciplinary research community. We feel like there are many session formats that could work for this (e.g., campfire or open space), and we would be interested in any suggestions the steering committee has. It is possible that the ultimate decision on format will be made at the session, depending on how many people attend