Low Environmental Impact SRM Experiments workshop (LEISE)

IASS Potsdam, Germany
7-8 September, 2016

Whether, how, and when research should leave the laboratory is one of the most controversial topics in the debate around solar climate engineering (also known as solar radiation management or SRM). But while academic and public discussions on outdoors SRM research are important and ongoing, they can be hampered wherever there are misunderstandings over what field experiments might actually involve.

The LEISE workshop will seek to inform future conversations about SRM research. It will bring together roughly 20 scientists and engineers with expertise in a range of topics related to different proposed SRM techniques. Working in small, interdisciplinary groups, they will propose and work up descriptions of potentially informative SRM experiments that they expect would have negligible environmental impacts.

The meeting goal is to produce a report of well-presented, accessible descriptions of hypothetical research projects. It is explicitly not to create or accelerate formal experiment proposals that are suitable for submission to funding bodies. It is hoped that the LEISE workshop report can act as a foundation for discussions among a wide range of stakeholders about the value and risks of SRM research, about experimental priorities, research governance, and ethics. This can help ensure that such important debates are not based on uninformed supposition.

The organisers emphasise that the workshop is not about experiment prioritisation, debating the merits of SRM research, or the ethics and governance of SRM experimentation. These are essential discussions, but they will require input from a much wider group than the technical experts attending the LEISE workshop. The workshop's narrow, technical focus should produce a report that can inform further conversations on different aspects of SRM experimentation, such as those that will be carried out at the next international Climate Engineering Conference in Berlin (CEC17), organised by the IASS and planned for mid-2017.

For additional information see here

Workshop organising team:
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Agenda

7 September

0900 – 1015 **Introductory plenary session**
- Welcome and participant introductions
- Introductory talk on the science of SRM techniques, and current knowledge gaps

1015 – 1030 **Break**

1030 – 1230 **Group work: SAI, MCB, CCT, engineering**
- Work in small groups on experiment ideas for the leading proposed SRM techniques, and their engineering challenges
- Participants will be encouraged to address research intent, experiment design, and potential risks and uncertainties

1230 – 1330 **Lunch**

1330 – 1430 **Group work**

1430 – 1500 **Break**

1500 – 1630 **Plenary session**
- Participants reconvene in plenary for short summaries and critiques of the different experiments

1630 – 1700 **Break**

1700 – 1800 **Post-plenary discussion**
- Participants follow up with side discussions on the proposals and comments from the plenary session

8 September

0900 – 0930 **Talk on social aspects of SRM research**
- The talk will discuss the key role that scientists can and often do play in the development of governance arrangements for emerging science and technology fields

0930 – 1045 **Group work**
- Participants will finalise experiment proposals (format tbd after the first day of the workshop)
- Proposals to summarise what would be learned from the experiments (both about SRM and about the Earth system),

experimental design, and a critical assessment of potential risks, externalities and uncertainties

1045 – 1115 **Break**

1115 – 1215 **Plenary**

- Final review and critique of experiments

1215 – 1230 **Summary and close**