Contribution ID: **2010** Contribution code: **TH04** Type: **Roundtable**

Exploring failure and frustration: solar radiation modification and simulation work as a research method

Thursday 4 June 2026 09:00 (1h 30m)

Over the past year, we have developed an innovative methodology to explore the geopolitical challenges posed by solar radiation modification technologies that are being researched to cool global temperatures. We have designed and run a series of open-ended, research-driven simulation workshops designed to investigate decision-making in non-ideal scenarios, drawing on the expertise of a network of interdisciplinary participants. Wargames and crisis simulations are common research tools employed in a variety of settings to understand how actors will behave in a given scenario and to assess possible outcomes. However, many wargames and simulations focus on how participants might 'win'or produce the optimal solution to a predetermined scenario where clear rules and structured relationships are fixed (Shephard 2017; Solinska-Nowak et al. 2018). In the case of SRM, the anticipated solution is often an effective governance framework. The aim was not to push actors towards an ideal-type solution, but explore the cooperative and conflictual interplay between power, prestige, and environmental reality under conditions of complex uncertainty. Rather than assuming predetermined parameters, the methodology employed in this project advanced an open-ended simulation where, through their engagement with each other, participants collectively co-produced a shared understanding of the geopolitical and environmental stakes involved in SRM deployment, the evolving relationships between key global SRM actors, and potential points of failure when it comes to governance. Developing interactive, interdisciplinary research methods may be a key means of understanding and untangling complex political debates in the context of faltering global climate cooperation.

Track Classification: Environment and Climate Politics Working Group