Abstract

Global climate change poses a serious challenge to the stability and flourishing of human beings and ecological systems worldwide. Under the UNFCCC, countries around the world have spent decades negotiating responses to climate change, and there is a broad consensus that substantial reductions in greenhouse gas emissions and significant adaptation are needed to avoid increasingly severe climate impacts. This will require significant social transformation and decarbonization of the global economy. However, the pace of change has been slow, and some scientists have begun to explore strategies to counteract warming by reflecting a small proportion of incoming solar radiation back into space -- not as a substitute, but as a supplement to mitigation and adaptation. Research on these solar radiation management (SRM) techniques is in its early stages, and there is disagreement about whether and how research and development of SRM should proceed. Despite these disagreements, it is widely recognized that solar geoengineering is not merely a technical issue: it raises complex questions of ethics and governance. This talk will provide a brief overview of possible technical approaches to solar geoengineering, then discuss in depth some of the ethical and governance questions raised by efforts to research and develop strategies to intentionally manipulate the climate at the global scale.