



## JOINT GUEST LECTURE BAGSS AND PROFESSORSHIP FOR INTERNATIONAL AND EUROPEAN POLITICS

Monday, 19 June 2023 at 4.00 p.m. (s.t.); FG1/00.06 (Feldkirchenstraße 21)

# Being Pre-emptive Instead of Reactive: Solar Geoengineering Governance

Professor Dr Barbara Koremenos, University of Michigan

“The world is on a collision course with significant, destructive climate change that even the most ambitious feasible efforts to cut carbon emissions will not prevent. This growing realization has led to increasing interest in an otherwise fanciful technology known as solar geoengineering: Readily available aerosols are dispersed in the atmosphere using high-altitude jets to reflect a small portion of incoming sunlight back to space, reducing major impacts of climate change imperfectly but quickly and at low cost. Alarming, the perception of an easy, inexpensive solution to climate change would likely undermine action on mitigation, particularly among those with vested interests in greenhouse gas emissions. Hence solar geoengineering governance must be linked to emissions governance. This linkage, however, is not straightforward since solar geoengineering and mitigation are each characterized by different cooperation problems and key actors, such that separate institutions designed to govern these issues independently would differ in terms of their critical detailed institutional design provisions. Building on my Continent of International Law (COIL) research program, I introduce intertwined institutions to manage such complex institutional design challenges wherein some subset of the design provisions (e.g., punishment mechanisms or decision-making rules) of the governance structures must be either shared or, if separate, contingent on one another to manage the interactions successfully. My theory building will focus on how the various institutional mechanisms necessary for two governance structures might complement, substitute for, or conflict with one another, how synergies can be promoted to increase any positive externalities, and how tradeoffs can be optimally managed to discourage negative externalities. Questions of legitimacy are front and center as I grapple with how the least developed states will be able to express their views formally in a future solar engineering governance structure that would likely be financed and implemented by a small set of powerful states despite global effects.”

Political Science Professor **Barbara Koremenos** received her Ph.D. from the University of Chicago. She won a National Science Foundation CAREER Award for her research on how international law can be structured to make international cooperation most successful. She has served on two National Academy of Sciences, Engineering, and Medicine committees, making policy recommendations based on her research.