

US-China Tech Race: Actors, Strategies and Outcomes

Thursday, 19 June 2025 15:00 (1h 30m)

This panel explores the evolving dynamics and strategies of both state and non-state actors within the realm of emerging technologies amid intensifying US-China competition. It brings together scholars investigating state policies, non-state interests, and strategic outcomes in distinct yet interconnected sectors, including artificial intelligence (AI), military technology, semiconductors, and health biotechnology. Adopting diverse theoretical approaches—including institutionalist explanations, comparative politics, applied economics, practice theory, securitization theory, and the advocacy coalition framework (ACF)—the panel sheds light on the complex interactions between states and between states and non-state actors. Through empirical data and theoretical contributions, the panel challenges prevailing understandings of the determinants of policy shifts and outcomes, raising important questions about the negotiation of interests, accumulation of capital, varying institutional contexts and advocacy coalitions that shape the landscape of US-China competition. Emphasizing inclusivity and diversity, the panel accommodates scholars at various career stages and from different institutions, fostering a vibrant exchange of ideas that will not only enrich dialogue within the field but also set the stage for new research agendas and collaborative endeavors. Ultimately, the panel serves as a platform to facilitate discussions on the implications of these strategies and contexts for international relations, global governance, and the future of technological innovation and cooperation. It aims to steer conversations towards a deeper understanding of the evolving dynamics in the realm of emerging technologies within US-China rivalries.

The panel consists of five papers. The first paper by To and Lee evaluates the outcomes of China's push for talent in the semiconductor industry. The authors challenge the notion that Xi Jinping is the key architect of China's semiconductor strategy, revealing that the focus on self-reliance in this sector predates his leadership. The paper explains how institutional barriers and misalignments between state policies and industry needs have hindered China's efforts to cultivate and acquire high-end chip talent.

The second paper by Yang explores China's evolving AI policy, emphasising the interests and influence of domestic non-governmental stakeholders in shaping the national agenda prior to 2017. It traces the shift from a domestic-focused AI strategy to one that seeks to position China as a leader in global AI governance, driven by changing policy focus within dominant coalitions.

The third paper by Zhang and Qiao-Franco investigates the continuity and change in China's arms control diplomacy, particularly in the realms of nuclear weapons and military AI. Despite significant geopolitical shifts, China's arms control strategies have remained remarkably consistent, guided by a realist worldview and a state-centric approach.

The fourth paper by Wang examines the role of private firms in US-China technological competition. It navigates how Chinese and US technology companies navigate the regulatory and geopolitical pressures imposed by their respective governments, acting both as instruments of state policy and autonomous agents. This research underscores the strategic choices available to these firms and the influence of institutional differences on their responses.

The final paper by Lo explains the securitization process of China's health biotechnology by the US government. The paper introduces a revised securitization framework that incorporates insights from the Advocacy Coalition Framework (ACF). The paper highlights that the US securitization of health biotechnology reflects a broader trend of techno-nationalism. It also posits that this securitization approach could potentially undermine biomedical advancement and health security at the global level.

Track Classification: International Studies and Emerging Technologies Working Group