



Spectrum Geographies: Signal, Territory, and Electromagnetic Space

Speaker:	Associate Professor Mia Bennett University of Washington
Chair:	Professor Petra Tschakert Department of Geography, NUS
Date/Time:	16 September 2026, Wednesday at 3:30pm
Place:	Faculty of Arts and Social Sciences Geography Earth Lab, AS2 #02-03

Abstract:

Humans have warmed themselves by the fire since the dawn of time. But since 1800, when British astronomer Sir William Herschel realized that heat was a form of light, or electromagnetic radiation, humans have made wider and more deliberate use of the electromagnetic spectrum. The discovery of radio waves in the 1860 opened a radical new medium for people, and particularly governments and militaries, to communicate information. X-rays, night vision, satellite communication, and television broadcasting are just a few of the technologies dependent on generating electromagnetic waves – and on controlling access to the electromagnetic spectrum. While the spectrum is invisible to the naked eye, it has become central to power struggles at a range of scales. Ongoing conflicts in Ukraine and Iran unfold not only on the ground, but through electronic warfare. Outside of warzones, some Indigenous Peoples call for “spectrum sovereignty” in an effort to reclaim control over the spectrum from the national government, which typically regulates this invisible domain. Lastly, as activities in orbital space expand, from internet satellite megaconstellations to potentially data centers, demand for spectrum is growing. In 2026, SpaceX purchased spectrum allocation from EchoStar, a beleaguered satellite company, for \$17 billion, illustrating the value of this invisible resource. Since the electromagnetic spectrum transcends traditional concepts of space, a new and more refracted view of geopolitics is necessary to grapple with how struggles for control of different portions of the spectrum are unfolding, how these intersect with terrestrial and orbital geographies, and what these indicate for the future of geopolitical competition.

About the Speaker:

Mia Bennett is an Associate Professor in the Department of Geography at the University of Washington. She researches the geopolitics of frontiers, namely the Arctic and orbital space, with a recent focus on critical remote sensing, satellites, and Starlink. Mia has run a blog on the Arctic, *Cryopolitics* (cryopolitics.com), since 2009, and with Klaus Dodds is author of *Unfrozen: The Fight for the Future of the Arctic* (Yale University Press, 2025).

Light refreshments will be served 30 minutes before the seminar.
