



"My work takes ideas that already exist in international relations about deterrence and war and applies them to space," said Gurantz.

Military operations rely on satellites for communication, navigation, and intelligence, surveillance, and reconnaissance. Some U.S. space assets also impact nuclear deterrence, providing missile warning and monitoring for nuclear detonations. Adversaries may want to target these assets by jamming signals, blinding satellites with lasers, or destroying satellites with missiles, among other means, said Gurantz.

Space deterrence is hard to conceptualize, he said. "My research aims to provide people with a thought map about how to think about deterrence in space," said Gurantz. "How do you convince the other side they will pay a big price if they attack us in space? What could that look like, theoretically?"

The geography of space presents additional barriers to space deterrence. The geography of space is about orbit. No country owns any part of space; they just own assets in space that are constantly in orbit. Therefore, rules of protecting air space and controlling assets in the atmosphere do not apply, said Gurantz.

There are treaties in place regarding space, like not testing nuclear weapons in the atmosphere. "I am thinking through aspects not covered by treaties or loop wholes in those existing treaties," said Gurantz.

"These issues are important to national security, issues that the U.S. government is going to have to solve, and our students are going to be the ones to contribute to solving the problems of space deterrence and protecting American assets in space," said Gurantz. "This is one part of the larger picture of how to protect the United States," said Gurantz

Before coming to the Army War College, Gurantz spent five years teaching at the Air War College. After teaching in their Department of Strategy, he spent two years teaching their Space Seminar. He earned his B.A. in Political Economy from UC Berkeley and his Ph.D. in Political Science from UCLA.