

**Space Science Seminar**  
**Tuesday, 2019 February 19**  
**10:30 a.m.**  
**NSSTC/2096**

**Radio Searches for Cosmic Neutrinos**

Dr. Stephanie Wissel / California Polytechnic State University

Host: Dr. Michelle Hui  
(sponsored by ST12)

Cosmic neutrinos are unique messengers from the cosmos that can probe fundamental physics at macroscopic energies left unexplored by accelerators on Earth. But the low flux of cosmic neutrinos drives the need for neutrino experiments to achieve larger exposures and lower thresholds. Radio experiments can achieve such large exposures by taking advantage of the coherent broadband radio emission resulting from ultra-hi-energy ( $E > 10^{17}$  eV) neutrino interactions. In this talk, I will review results from current radio experiments like ANITA, and discuss future concepts aimed at understanding cosmic engines and exploring particle interactions at the highest energies.

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