

Abstract Submitted  
for the APR21 Meeting of  
The American Physical Society

**Searching for High Energy Neutrinos with the Askaryan Radio Array**<sup>1</sup> BRIAN CLARK, Michigan State University, ASKARYAN RADIO ARRAY COLLABORATION — The Askaryan Radio Array (ARA) is an experiment deployed at the South Pole to search for ultra-high energy ( $> 10$  PeV) neutrinos. ARA searches for neutrinos by burying clusters of antennas deep (200m) in the glacial ice, and looking for the radio emission produced by neutrino-nucleon interactions. In this talk, I will summarize the status of the experiment. I will discuss the latest results in the ARA search for neutrinos, which produced the best limit from an in-ice radio array above 100 PeV. I will also highlight ongoing work in analysis and reconstruction, and their implications for the design of next generation experiments.

<sup>1</sup>NSF Grants 1903885, 2013134, 1806923, 2019597

Brian Clark  
Michigan State University

Date submitted: 08 Jan 2021

Electronic form version 1.4