

OSF20-2020-000064

Abstract for an Invited Paper
for the OSF20 Meeting of
the American Physical Society

High Energy Neutrino Astrophysics with Radio Techniques¹

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Multimessenger astronomy has entered an exciting new era with the recent discovery of both gravitational waves and cosmic neutrinos. I will focus on extremely energetic neutrinos as particles that can uniquely probe the most extreme astrophysics sources at cosmic distances, as well as fundamental physics in an unexplored energy regime. While optical Cerenkov radiation remains the most powerful strategy for neutrino detection over a broad energy range, the radio Cerenkov technique has emerged in the last two decades as the most promising for a long-term program to push the neutrino frontier by over a factor of 1000 in energy. I will present the latest results from the field of high energy neutrino astrophysics, with a focus on the balloon-borne ANITA experiment and the in-ice South Pole array ARA. I will also give an overview of the many exciting projects in this field that are on the horizon, and their anticipated impact in terms of the astrophysics and particle physics questions that we seek to answer.

¹National Science Foundation and NASA