

SES15-2015-000076

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Abstract for an Invited Paper
for the SES15 Meeting of
the American Physical Society

The story of neutrinos and the Universe

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Detection of the elusive neutrino has revealed many surprising discoveries over the past few decades including oscillations and, as a consequence, the conclusion that neutrinos have mass. In addition to having interesting particle properties, neutrinos also carry information from their birthplace: the energy cycle that drives our Sun, supernova explosions and other astrophysical events, and the early universe. This talk will explore the history of neutrino detection, will highlight a few of the important discoveries (including this year's Nobel prize), and will discuss the future for neutrino research with a focus on how we can use neutrinos as a probe for some of the most poorly understood phenomena in the Universe.