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Abstract for an Invited Paper for the APR17 Meeting of the American Physical Society

Intense and exciting: current and future accelerator-based measurements of neutrino oscillation LISA WHITEHEAD, Univ of Houston

Accelerator-based experiments have been crucial in our understanding of neutrino oscillations. In this talk, I will give an overview of current accelerator-based neutrino oscillation experiments, which have observed electron neutrino appearance and made precision measurements of the parameters governing muon neutrino disappearance. I will discuss what the current set of experiments can contribute to the remaining questions in neutrino oscillation physics, including measuring the CP violating phase, determining the mass hierarchy, resolving the θ_{23} octant, and searching for sterile neutrinos. Finally, I will describe the plans and physics goals for future accelerator-based neutrino experiments.