

# Preface

The XXVI International Conference on Neutrino Physics and Astrophysics (Neutrino 2014) was held in Boston, U.S.A. from June 2 to 7, 2014. The Conference was co-hosted by Boston University, Harvard University, M.I.T., and Tufts University. The Conference welcomed 549 registered participants from 33 countries. The Boston University Student Village offered an inexpensive housing option and was taken advantage of by 282 attendees. The lecture venue was the George Sherman Union at Boston University. There were 63 scientific presentations by speakers from 15 countries. The Conference held two poster sessions with a total of 287 posters. The Conference featured a reception at the M.I.T. Museum plus a multi-week exhibition on neutrino physics capped by public presentations on the closing date of the conference. The banquet was a strolling buffet dinner held at the New England Aquarium.

The scientific program of Neutrino 2014 was constructed to emphasize results from running experiments, with collaborations encouraged to highlight young scientists. The Conference opened with a special historical lecture on the discovery of neutral currents, by Dieter Haidt of DESY. Perhaps the seminal result presented at the Conference was the detection of 28 ultrahigh-energy neutrino events by IceCube, providing the first evidence for neutrinos of astrophysical origin. The study of neutrino oscillations continued as a major industry, and updated results were presented from a variety of experiments based on both natural and man-made sources. The role of sterile neutrinos in neutrino oscillation remained unresolved. Refined values of  $\theta_{13}$  were presented, as the field turns to mass hierarchy and CP-violation as the next major goals. These measurements will likely require the next generation of experiments, which were also a major topic for the Conference. Observation of the absolute mass scale of neutrinos, and deciding if they are Majorana or Dirac particles, continued to be elusive, as the current generation of neutrinoless double-beta decay provided only limits. The absolute mass of neutrinos is now a routinely examined parameter in precision cosmology. The Conference closed with theoretical and experimental perspectives by Joe Lykken from Fermilab and Dave Wark from Oxford.

At Neutrino 2014 the baton was passed from outgoing Neutrino Commission chairman Jack Schneps to new chairman Steve Parke. In these proceedings Jack has included a history of Neutrino Conference series. The 43 years since the first Neutrino Conference saw tremendous advances in our understanding of particle physics with neutrinos often playing a starring role. We look forward to the new results in store for us at Neutrino 2016 in London, and the ones to follow.

Ed Kearns, Boston University

Gary Feldman, Harvard University

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