

International Beam Instrumentation Conference (IBIC '14)
September 14-18, 2014
Monterey, California, USA

The International Beam Instrumentation Conferences are dedicated to exploring the physics and engineering challenges of beam diagnostics and measurement techniques for charged particle beams. Like that of its predecessors, the Beam Instrumentation Workshops (BIW), held 1989 through 2012, and the Diagnostics and Instrumentation for Particle Accelerators Conferences (DIPAC), held 1993 through 2011, the goal of this conference is to share and spread knowledge and to help develop the next generation of experts in the field.

IBIC '14, was hosted by the SLAC National Accelerator Laboratory at the Portola Hotel in Monterey, California. The four day scientific program consisted of two tutorials, 11 invited talks, 19 contributed talks, and 127 posters in three poster sessions. Twenty-one industrial sponsors exhibited at the conference. All sessions were in plenary format to enable participants to attend all sessions. The two tutorials, given by Mike Gruchalla of Los Alamos National Labs presenting "Managing Electromagnetic Interference in Large Instrumentation Environments" and Thomas H. Lee of Stanford University presenting "Dark (and Bright) Secrets of RF Design" were very well received. Kent Irwin (SLAC and Stanford University) presented an exciting talk on superconducting detectors spanning their applications from X-ray beamlines to the recent announcement of detection of evidence for gravitational waves in the early universe.

Each evening a reception, made possible by the generous sponsorship of our industrial exhibitors, concluded the day's program. These receptions enabled the workshop participants to continue the discussions generated during the day by the conference talks and posters. On Tuesday a reception honoring "The Faraday Cup Award and its Transition into the Care of the IBIC Organizing Committee" was sponsored by Bergoz Instrumentation and GMW Associates. The conference banquet was held on a beautiful evening outdoors in the Memory Garden of the Monterey State Historic Park. After the official closing of the conference, most of the participants boarded busses for the long drive to SLAC and took advantage of the organized tour to visit many of the SLAC accelerator facilities.

Conference attendance included 175 participants. Notably, fewer than one third of the participants were from the host continent. Two-thirds of the participants travelled from Asia, South America, and especially Europe which alone was responsible for one half of the attendees, likely reflecting the vibrancy of the European accelerator scene with projects such as the European XFEL, the European Spallation Source, FAIR, and LHC underway.

IBIC '14 continued the tradition of the Beam Instrumentation Conferences in soliciting nominations for the Faraday Cup Award. This prize, sponsored by Bergoz Instrumentation, is given for a novel beam instrument of proven (published) performance for charged-particle beams with preference given to candidates early in their career. The Program Committee heatedly debated the merits of the nine nominations submitted. All submissions were excellent in many of the criteria established for the

Faraday Cup, but as we did not find any one nomination that met all of the award's exacting criteria we chose not to award the Faraday Cup this year.

The success of a conference such as IBIC '14 depends on the hard work of many people. We thank the JACoW collaboration and the editors: David Button (Australian Light Source), Isidre Costa (CELLS-ALBA Synchrotron), Ian Martin (Diamond Light Source), Maggie Loera (SLAC), and Volker RW Schaa (GSI Helmholtz Center for Heavy Ion Research) for their excellent work assembling and polishing these proceedings on a very tight schedule. We also thank their home institutions and funding agencies for supporting their participation here.

Many thanks to the Program Committee for guiding the development of an excellent agenda of tutorials, invited and contributed talks. (The only complaint I heard about the agenda was that the talks were so interesting that participants could not find any time to enjoy a walk along the Monterey beachfront.) The committee consisted of Wim Blokland (Spallation Neutron Source), Mark Boland (Australian Light Source), Mario Ferianis (Sincrotrone Trieste), Doug Gilpatrick (Los Alamos National Lab), Hitoshi Hayano (KEK), Andreas Jansson (ESS), Rhodri Jones (CERN), Kevin Jordan (TJNAF), Patrick Krejcik, (SLAC), Bob Lill (ANL), Sergio Marques (LNLS), Guenther Rehm (Diamond Light Source), Tom Russo (FRIB), Jim Sebek (SLAC), James Sedillo (Los Alamos National Lab), Om Singh (BNL), Steve Smith (SLAC), Victor Verzilov (TRIUMF), Jonah Weber (LBNL), Kay Wittenburg (DESY), Jim Zagel (FNAL). Thanks also to the Local Organizing Committee: Suzette Escobar, Patrick Krejcik, Jim Sebek, and Steve Smith, and to Stanford University, especially Stanford Conference Services, SLAC National Accelerator Laboratory, the Portola Hotel & Spa (especially Eddie Guice and Phil Pennington), the City of Monterey, and the SLAC tour guides and organizers.

Also many thanks to Keshia Abeyta, Terry Anderson, Nick Arias, Ryan Auer, Lauren Barbieri, Collette Barss, Suzanne Bennett, Angelica Buridos, Charlotte Chang, Ambrose Chu, Teri Church, Lorna Cisneros, Sarah Cobbett, Stephanie Corsino, Chet DeRouin, Jerry Diaz, Mike Early, Laurissa Ellis, John Escudero, Laurie Escudero, Steven Erickson, Cynthia Faulkner, Alan Fry, Danna Gianforte, Phillip Gin, Eddie Guice, Kristi Hollman, Norbert Holtkamp, Kari Horwath, Ellin Kohler, Terri Lahey, Megan Laughton, Atilla Lazar, Raymond Lo, Cindy Lowe, Jennifer Luu, Thomas Mathis, Joline McQuillan, Diana Merino-Tillman, Robyn Mosset, Brigid Neff, Jeanne Nicholas, Simon Ovrachim, Phillip Pennington, Hector Prado, Laura Ramirez, Anthony Renteria, Jennifer Sarbahi, Jo Anne Thorne, Kelvin Tom, Vena Tse, Cecilio (Chico) Vazquez, Tanya Walker, Jennifer Wilhelmsen, Stephanie Weitzenkamp, Sharon West, and especially Suzette Escobar, who brought it all together. We also, once again, thank our industrial exhibitors/sponsors.

The next three instances of the International Beam instrumentation Conference will be the IBIC '15 September 13-17, 2015 in Melbourne, Australia, the IBIC '16 September 11-15, 2016 in Barcelona, Spain, and the IBIC '17 in East Lansing, Michigan, USA. We look forward to your participation in these conferences!

Steve Smith,
IBIC '14 Chair