Welcome to the IEEE’s CLUSTER 2015 conference and to the vibrant city of Chicago, Illinois, USA! CLUSTER 2015 follows the tradition of past editions by providing a high-quality forum for presenting new research results on all aspects of the design, implementation, evaluation, and application of cluster computing. This year the primary focus area for the conference is *Exascale Computing* with its challenges and opportunities, although the conference still includes other topics related to the general area of Cluster Computing. Join us to meet the Cluster Computing community with its outstanding computer scientists, leading creators of Cluster technologies, and rising stars presenting significant contributions about today’s Cluster Computing advances. We promise you a unique conference with its second-to-none technical program.

Early September is a great time to visit Chicago, the third largest city in the United States and a major technological and cultural capital. The conference hotel, the DoubleTree Hotel Chicago Magnificent Mile, is centrally located and within walking distance of numerous attractions including its numerous skyscrapers and renowned museums. The most exciting part, however, is surely the outstanding program offered by CLUSTER 2015. From keynotes to technical papers, CLUSTER 2015 provides first-class programs in all categories.

Together with its highly competitive dual-track technical program and its talks, CLUSTER 2015 features the keynotes of three prominent experts in Cluster Computing: Al Gara from Intel, Mark Snir from Argonne National Laboratory, and William (Bill) Harrod from DOE ASCR; a poster reception; a technical panel of experts who will discuss the future of Exascale Computing; and two industry sessions hosted by two driving companies in the field, Cray and DDN. With the support of the U.S. National Science Foundation (NSF), CLUSTER 2015 continues its tradition of hosting a pool of talented students participating in the Student Mentoring Program.

The success of CLUSTER 2015 is due to the dedicated efforts and high standards of numerous international volunteers as well as the many authors who submitted excellent papers this year. First of all, we want to thank our excellent Program Chair, Satoshi Matsuoka, the Program Track Chairs, Richard Vuduc, Todd Gamblin, Naoya Maruyama, Gabriel Antoniu, and Tom Peterka, as well as the entire Program Committee (PC) for their excellent work in selecting the conference’s high-quality
contributions: 38 papers and 27 short papers. We thank the Workshops Chair, Bronis de Supinski, for gathering six inspiring workshops on topics of interest to the Cluster community and well as the chairs and PCs of the various workshops. We thank the Poster Chair, Seelam Setharami, for putting together an exciting poster program with more than 30 posters accepted for presentation at the Wednesday reception. The dedication and commitment of our Student Mentoring Program Chair, Luc Bouge, have made possible the recruitment of 33 talented students at different levels of their academic studies, including both graduate and undergraduate students from different countries. Our Panel Chair, Alice Koniges, and the Panel Moderator, Franck Cappello, have put together a unique panel that brings together key leaders and contributors on Exascale Computing. We are grateful to our Publicity Co-Chairs, Francesco Silvestri and Ioan Raicu, for reaching out to the community and advertising the event on an international scale. The Website Co-Chairs, Boyu Zhang and Antonio Pena, did a beautiful job with the conference website. The Finance and Registration Co-Chairs, Mary Dzielski and Sangmin Seo, made tremendous efforts to keep the conference budget balanced. Antonino Tumeo, our Proceedings Chair, ensured the timely publication of the conference proceedings. We are especially grateful to the Local Organizing Co-Chairs, Kamil Iskra and Kyle Chard, who did a tremendous job on innumerable tasks, from selecting the hotel to negotiating the price of the banquet.

Our gratitude goes to the many authors who submitted papers. There were many excellent papers that we could not accommodate in the program, due to the large number of submissions. We hope these authors will join us in Chicago and share with the community their results in conversations, panels, and workshops at the conference.

CLUSTER 2015 would have not been possible without our generous and supportive sponsors. Specifically, we would like to acknowledge the support of the U.S. Department of Energy (Diamond Sponsor) and Argonne National Laboratory (Diamond Sponsor), Cray (Gold Sponsor) and DDN (Gold Sponsor), Penguin Computing (Silver Sponsor), and the NSF for the Student Mentoring Program support. We also want to thank IEEE for the sponsorship of this conference and for publishing the proceedings in IEEE Xplore.

Ultimately, the success of IEEE Cluster 2015 is judged by our attendees’ experience. We hope that the conference will provide you with a valuable opportunity to share ideas, communicate, learn, and network with researchers and practitioners from academia, national laboratories, and industry from around the world.