

FOREWORD

The North American Particle Accelerator Conference (NAPAC'19) took place on 1-6 September 2019 at the Lansing Center, located in the heart of downtown Lansing, Michigan, United States. NAPAC'19 is hosted by the Facility for Rare Isotope Beams (FRIB) Laboratory, Michigan State University (MSU), being co-sponsored by the Institute of Electrical and Electronics Engineers (IEEE) and the American Physical Society (APS). FRIB with the world highest heavy ion beam power of 400 kW is under construction, already started its beam commissioning, and most cryomodules were completed at the time of the conference. The site tour scheduled Friday afternoon was thus one of highlighted events at the conference.

This conference series started in 2011 in New York City, being hosted by Brookhaven National Laboratory. They cover the entire spectrum of accelerator science and technology in the same way as International Particle Accelerator Conference (IPAC) series, but are regional – though participants are not regionally limited – and more focused on early-career scientists and engineers, including students and research associates. Like IPAC in North America, NAPAC is triennial, and increases the opportunities for early career North American scientists and engineers to attend conferences. Many events were planned for students, including breakfast discussions with senior experts, short courses and “deep-dive” tutorials. A student poster session stimulated discussion and conversation, and among 65 student posters, four posters were awarded, highlighting accelerator technology developments presented at NAPAC'19 and also showing the recent trends of the accelerator developments.

Consequently, the NAPAC'19 Proceedings include many exciting papers presented by early career enthusiasts as well as stimulating papers by world leading scientists and engineers. Approximately 400 attendees were brought together from 15 countries, and 47 invited talks were presented together with 75 contributed orals and 272 posters.

We thank the large number of registrants, exhibitors, and sponsors for their support of the NAPAC'19. Several national research institutes donated NAPAC'19 to support a significant number of students, who will be soon major players in the accelerator community, being stimulated by this exciting forum. We would like to thank the NAPAC'19 International Organizing Committee (IOC), Scientific Program Committee (SPC), Scientific Program Coordinating Committee (SPCC) and Local Organizing Committee (LOC) for making this conference a success. We gratefully acknowledge support from the FRIB Laboratory and MSU. Finally, in particular, we would like to express sincere appreciation to JACoW editorial staff for their careful, efficient hard work.

The proceedings, which include copies of presentations, are available on the JACoW website.

During the NAPAC'19, the next NAPAC (NAPAC'22) was determined to be held in Los Alamos, New Mexico, United States. We look forward to seeing you in New Mexico.

Yoshishige Yamazaki
NAPAC'19 Conference Chair

Tor Raubenheimer
NAPAC'19 SPC Chair

Steve Lidia
NAPAC'19 LOC Chair

Amy McCausey
NAPAC'19 Editor in Chief