

ARIS 2017 in the Mountains, 28 May–3 June 2017 in Keystone, Colorado, USA



Figure 1. Conference photo taken in front of the Keystone Conference Center and the spectacular mountain scenery of Colorado.

The third international conference on Advances in Radioactive Isotope Science, ARIS 2017, was held for the first time in North America at the Keystone Conference Center in Keystone, Colorado, USA, from Sunday, 28 May through Friday, 3 June 2017. The meeting was jointly organized by NSCL/FRIB (Michigan State University, USA) and TRIUMF (Canada). ARIS is the flagship conference series for rare-isotope science that resulted from a merger a few years ago of the “International Conference on Exotic Nuclei and Atomic Masses (ENAM)” and the “International Conference on Radioactive Nuclear Beams (RNB).” Following the tradition of the ARIS meetings in 2011 (Leuven, Belgium) and 2014 (Tokyo, Japan), ARIS 2017 facilitated a vibrant and extensive information exchange. More than 277 scientists from 23 countries attended “ARIS in the mountains,” as the meeting was dubbed due to its location in the Rockies at a high base elevation of 9,280 feet or 2,830 meters (Figure 1).

The conference opened with a plenary session on precision measurements and fundamental symmetries, followed by plenary sessions on nuclear astrophysics, and on the intersection of nuclear structure and reactions. The first day then ended with a special plenary session with new results hot off the press that was organized short-term to accommodate some of the most recent work in the field. The second day was kicked off by two plenary sessions on the study of the heaviest elements and nuclear structure insights from spectroscopy, respectively. The afternoon was devoted to shorter talks that were presented in two parallel sessions. In the evening, more than 120 posters were intensely discussed during the dedicated poster session that only ended late in the evening when the conference center staff left for the night. The posters of graduate students Andrew MacLean, Christina Burbadge (both from the University of Guelph, Canada), and Aaron Chester (Simon Fraser University, Canada) were awarded the European Physical

Journal A Poster Prize. Wednesday had two plenary sessions in the morning, devoted to the nuclear theory frontier: from few to many-body systems, and fusion and fission studies, respectively. The afternoon was free for the attendees to enjoy the spectacular scenery around Keystone, on the mountain bike, while hiking, or during a ride on a historic railway. The day was closed with an evening lecture delivered by Graham Peaslee from Notre Dame University (Indiana, USA) who inspired attendees through a personal account of how to apply a nuclear science background to address environmental challenges. The program on Thursday started with plenary sessions on ground-state properties of nuclei and collective phenomena, continued with broad topics covered in two parallel sessions in the afternoon, and concluded with the conference banquet. The last day closed the meeting with three plenary sessions, on applied nuclear physics, nuclear masses, and with a special session on new developments and innovation. This last ses-

sion also provided a speaking slot for the first-placed poster winner, Andrew MacLean, who presented his work on gamma-gamma angular correlations with the new GRIFFIN spectrometer.

Overall, results at the frontier of rare-isotope science were presented not only from all major facilities around the world but also unique work

was underlined that is best performed at smaller laboratories. Essentially all sessions included presentations of experimental and theoretical research, showing the frontiers of both efforts at the same time and highlighting their close connection.

ARIS 2020 will take place in three years' time in the south of France,

hosted by the French nuclear physics laboratories of the CNRS, the CEA, the ILL, and in collaboration with GANIL.

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EINN 2017

The conference on “Electromagnetic Interactions with Nucleons and Nuclei (EINN)” had been organized on Santorini and Milos Islands in Greece every other year since 1995. In 2011, its location was successfully moved to Paphos, Cyprus. The conference series covers experimental and theoretical topics in the areas of nuclear and hadronic physics. It also serves as a forum for contacts and discussions of current and future developments in the field. The conference has unofficially been a counterpart of the U.S. Gordon conference on photonuclear physics and held in alternate years with traditionally strong U.S. participation. No proceedings are produced, in the tradition of Gordon and Euroconferences, in order to encourage the frank exchange of even tentative information.

The 12th EINN conference took place in Paphos, Cyprus from 29 October to 4 November 2017 and attracted 84 participants from 39 institutes located in 15 countries in Europe, North America, Asia, and Australia. The conference was dedicated to the memory of Dr. Kees de Jager, the first conference chair, in 1995, who passed away in 2016.

Since 2011, the conference program has organized dedicated sessions for postdoctoral fellows and advanced graduate students, who receive financial support. This year the conference again added a two-day, pre-conference

event on *Frontiers and Careers in Photonuclear Physics—skill development and talks for students*, which was very well-received by the students. More than 35 students and postdoctoral fellows participated in the conference by receiving partial support. A highlight of the conference was the evening plenary poster session, which drew a large attendance with lively discussions that lasted over two hours. The authors of the three best posters, selected by secret vote of all attendees, from Hampton University, USA and Mainz University, Germany were awarded European Physical Society Poster Prizes, which comprised the Feynman Lecture Series and commemorative gifts (Figure 1). The three poster winners each presented a talk on the subject of their posters at the plenary section of the conference. Social activities included: a welcome reception; an excursion to explore the fascinating history of Cyprus; a conference dinner that highlights the great hospitality of the island; and a farewell lunch, which provided the conference attendees with pleasant opportunities to engage in informal discussion.

The conference covered a wide range of theoretical and experimental developments in hadron physics, including: contributions beyond single-photon exchange, the proton radius puzzle, new experimental facilities, dark matter searches, neutrino



Figure 1. Presentation of European Physical Society Poster Prizes to the three winners: (left to right) EINN 2017 Chair Richard Milner, Oleksandr Tomalak (U. Mainz), Cristina Collicott (U. Mainz) and Dongwi H. (Bishop) Dongwi (Hampton U.).

physics, lattice QCD, spectroscopy, spin structure of the proton, precision electroweak physics, and new physics searches. With the study of QCD being a major focus of present activities and future plans in physics research worldwide, the EINN conference will continue to provide an important international forum, particularly for young physicists, for the foreseeable future.

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