

PREFACE

The Fourth International Conference on Fission and Properties of Neutron-Rich Nuclei was held November 12 – 17, 2007 at Sanibel Island, Florida. The conference followed very closely the spirit set by the previous three conferences held in 1997 at Sanibel and 1999 at St. Andrews, Scotland and 2002 at Sanibel. With over 100 papers presented over five and one-half days, this fourth conference highlighted many exciting new insights and developments in studies of fission and neutron rich nuclei.

The conference assembled many of the world's experts in the fields of fission, properties of neutron-rich nuclei, astrophysics, and super heavy elements, both theoretical and experimental. Speakers presented overviews and the most recent data that provide the latest insights into these fields. One session was devoted to progress and plans for major radioactive ion beam facilities in Canada, France, Germany, Japan, Russia and the United States, and data from some of these facilities were presented in other sessions. The future of these fields is very bright as evidenced by the results presented and by the presence of many young researchers and graduate students not only as attendees but as speakers.

The papers have been arranged essentially in the order of presentation in the program with the some short poster session papers at the end of the proceedings. The PowerPoint presentations of most of the conference papers can be found on the conference website: <http://www.ornl.gov/fission/presentations.htm>. W. Nazarewicz's talk can be found at: <http://www.phys.utk.edu/witek/Talks/sanibel07.ppt>

We want to especially thank the International Advisory Committee and the Local Organizing Committee for all their diligent work. The scientific success was assured by many excellent suggestions for speakers and topics by the international advisory committee. As planning proceeded, several members of this committee took very active roles in helping to ensure that the most current and important results from all laboratories were presented and to help balance speakers and topics. Unfortunately, we did not learn early enough of new regulations that significantly extended the visa application processing time for scientists from a number of countries. Therefore, several speakers did not receive their visas in time. In a few cases, other co-authors on the paper presented their results. A few of the invited papers that were not presented orally are included in these proceedings. The conference setting, in addition to its

natural beauty, provided convenient arrangements for informal discussions and for enjoyable outings. The Sundial Beach Resort's entire staff went beyond their job descriptions in providing excellent surroundings, food, and excursion, and so are due special thanks and especially to Tosha Wollney.

We want to thank each of our sponsors: Vanderbilt University, UNIRIB, Oak Ridge Associated Universities, Center for Excellence for Radioactive Ion Beam Studies for Stewardship Science, Joint Institute for Heavy Ion Research and Oak Ridge National Laboratory, and our Corporate Sponsors: Micron Semiconductor, Limited, Wiener and XIA for their financial support of the conference. We want to thank Tim Ledford, Marolyn Randolph, Cynthia Bullock, Jami Shafer, Angie Lester and Bruce Warford, ORISE, Oak Ridge Associated Universities for their many efforts in organizing space, meals, outings, computer arrangements and website and Susan Jacques for designing the graphics for the conference. We also want to thank the graduate students, Chris Goodin, Vanderbilt University, Carola Jost, ORAU and University of Mainz and Travis Bray, ORAU, Auburn University, Rama Katakam, ORAU and University of Tennessee for all their help. We want to thank the authors, M. Stoitsov, et al., Phys. Rev. C68, 2003, p. 054312, for the use of the cover figure of theoretical nuclear deformations which is a revised version from Isotope Science Facility at Michigan State University, 2007, p. 97.

The underpinning of any conference is the secretarial staff that sees to the endless details from long before to long after the conference including preparation of the proceedings. We are most appreciative to Amy Anderson, UNIRIB/ORAU, and Carol Soren, Vanderbilt University for their tireless efforts and very pleasant demeanor and calmness in the face of many demands in carrying out the work of the conference. We also want to thank Peggy Lucas-McGowan for designing the book cover where the sunset was taken at Sanibel during the conference, and Don Pickert for helping with graphics and photographs. We especially want to thank Carol Soren and J. K. Hwang at Vanderbilt for their work in getting many of the submitted manuscripts into the right format and ready for the proceedings.

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