

FOREWORD

The International Topical Meeting on Nuclear Reactor Thermal Hydraulics (NURETH) provides a forum for scientific and engineering advancement in the fields of fluid flow, heat transfer, and safety assessment for nuclear energy system applications. In 2015, NURETH-16 brings thermal hydraulics experts from around the globe to Chicago, Illinois, to honor the origins and the originators of our field, discuss the developments of today, and look to the needs and opportunities of the future.

The inaugural meeting in the NURETH series was held in 1980 in Saratoga Springs, New York, and hosted 14 technical sessions with 108 papers, 9 keynote addresses, and 5 “state of the art” addresses. In the opening preface to the inaugural NURETH Proceedings, the meeting’s chairman, Dr. Richard Lahey, Jr., notes that NURETH was inspired by the evolution of the field of nuclear reactor thermal hydraulics over the preceding two decades, with particular emphasis on the transition from proof testing to providing reliable measurements and model predictions of underlying phenomena.

The following NURETH meetings have carried forward many traditions, such as starting each day with keynote addresses that establish the state of the art in the field and recognizing the authors of the best papers of the conference. Most importantly, however, the NURETH tradition continues to emphasize the publication and discussion of high-quality scientific and engineering papers that tell us where we are going next. Proceedings of NURETH continue to serve as a guidepost marking the evolution of the field of nuclear reactor thermal hydraulics from engineering prototyping to exciting new phenomenological understanding.

This 16th edition of the NURETH tradition features 135 sessions held over 5 days, collecting close to 700 papers and including 7 panel discussions, 2 poster sessions, and 12 keynote addresses. These sessions span the broad scope of the field from experiment to simulation to design to licensing and beyond. The NURETH-16 Technical Program Committee members are proud to attach their names to the excellent technical proceedings that this meeting, the largest NURETH meeting to date, has produced.

We would like to thank all of the session organizers, reviewers, other volunteers, and authors whose extraordinary efforts have made this remarkable meeting possible. Ms. Ellen Leitschuh of the American Nuclear Society provided outstanding support to the production of the NURETH-16 proceedings. We are grateful to her for her skillful editing and dedication to quality.

On behalf of the NURETH-16 Technical Program Committee, enjoy the conference and proceedings!

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