

PREFACE

TWELFTH TOPICAL MEETING ON THE TECHNOLOGY OF FUSION ENERGY

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This Twelfth Topical Meeting on the Technology of Fusion Energy was held in Reno, Nevada, during the American Nuclear Society (ANS) national summer meeting. The meeting was sponsored by the Fusion Energy Division of ANS and cosponsored by the Atomic Energy Society of Japan, Fusion Engineering Division, and by the U.S. Department of Energy, Office of Research and Inertial Fusion. The fusion topical had 18 oral sessions plus a large poster session and two town meetings. About 265 abstracts were submitted for presentation; this represented a substantial increase from the previous topical meeting in 1994, despite declining budgets in magnetic fusion in the United States.

The Fusion Energy Division pioneered the concept of an "embedded topical" a decade ago in Reno. It enabled members to attend both the fusion and ANS national meetings to enhance the cross-fertilization of ideas and information. In this spirit, the new flagship project of inertial fusion was featured at the main ANS plenary session with a speech by E. Michael Campbell covering "The Role of the National Ignition Facility for Inertial Fusion and Prospects for Inertial Fusion Energy."

Our theme of "Building a Fusion Future Together" was implemented by integrating the inertial and magnetic fusion papers into technical sessions whenever practical. An evening town meeting featured the "Synergy Between Inertial Fusion and Magnetic Fusion Research and Development" to encourage the transfer of

ideas and research between the disciplines. A second town meeting was held to cover "Innovative Approaches to Fusion Energy." While fusion has achieved enormous scientific and engineering progress over the past 40 years, there is still some distance to go before practical/economical fusion energy is attained. This latter meeting called for an innovative and diverse research program to be sustained so that the ultimate promise of fusion can be realized.

The Japan Atomic Energy Society graciously agreed to sponsor an evening reception for those attending the topical meeting. It began with the traditional Japanese Kagami Wari Cask-Breaking Ceremony. This ceremonial opening of the sake cask by breaking the wooden lid with a large mallet is believed to bring blessings of health, happiness, and prosperity to all—KAMPAI! For the fusion community, this will surely be true as we look forward to the 21st century and ultimate success in fusion energy.

The Technical Program Committee is at the heart of the conference, and this was chaired by John Perkins with Deputy Chair Naoaki Yoshida (Kyushu University). They were ably served by Associate Chairs Mike Tobin and Wayne Meier. Also, we thank the conference staff (all from Lawrence Livermore National Laboratory) for their diligent efforts; Charlene Morris, Angeline Hoover, and Rene Pletcher for publicity and registration; Bonnie Zucca for finances; and Richard Foley for special events.