Advanced Diagnostics for Magnetic and Inertial Fusion

Advanced Diagnostics for Magnetic and Inertial Fusion

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PREFACE

This book of proceedings collects the papers presented at the International Conference on Advanced Diagnostics for Magnetic and Inertial Fusion held at Villa Monastero Varenna Italy from 3 to 7 September 2001. The conference was jointly organised by the "Piero Caldirola" International Centre for the Promotion of Science and International School of Plasma Physics and the Istituto di Fisica del Plasma "Piero Caldirola" of CNR.

This conference was the 8th in a series of meetings on the theme of fusion diagnostics that have been held in Varenna at intervals between two and four years since 1975. Whereas previous meetings have concentrated on diagnostics for magnetic confinement fusion, this meeting had the specific purpose of bringing together experts from Magnetic and Inertial Confinement. The meeting concentrated on advanced diagnostics in these fields.

The number of papers and participants was balanced between the two communities with approximately 35 invited and 60 contributed papers, with nearly 100 participants coming mainly from Europe, USA, Russia, and Japan, with a smaller but significant participation from China, Korea, and Israel.

Throughout the workshop, topics of simultaneous interest to both the magnetic and inertial fields were catalogued. Several topics were identified for further collaboration: solutions to environmental issues, detector technology and calibration techniques. Co-ordinators were appointed to promote future exchange and interaction between the magnetic and inertial confinement communities.

This is probably the first event to explicitly bring together the two communities of Magnetic and Inertial Fusion, highlighting the common problems in plasma diagnostics (and in plasma physics), showing the tremendous advances which have been realised in recent years in fusion, as well as the many tasks which still need to be addressed and solved on the devices of the next generation which promise, with both approaches, the achievement of fusion conditions.

Thanks are due to the institutions that have contributed financially to the organisation of this conference. In particular the Istituto di Fisica del Plasma "Piero Caldirola" of CNR, the DG RTD of the European Commission which provided financial support though the Euroconference scheme.

Peter E Stott, Alan Wootton, Giuseppe Gorini, Dimitri Batani, Elio Sindoni

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