



We are most pleased to publish the Proceedings of the 1998 International Conference on Open Magnetic Systems for Plasma Confinement as a special issue of *Transactions of Fusion Technology*. This conference was held at the Budker Institute of Nuclear Physics, Novosibirsk, July 27–31, 1998, in cooperation with the International Atomic Energy Agency (IAEA). We are grateful to the program committee for collecting and reviewing the papers. Special thanks go to Dr. E. Kruglyakov, chair of this committee, who served as guest editor for this issue. The cooperation of Dr. T. Dolan, representing the IAEA in this endeavor, is also appreciated.

When the mirror program at the Lawrence Livermore National Laboratory was canceled some years ago, the mirror and related open-ended confinement systems lost considerable visibility. However, internationally, small groups of mirror researchers, particularly in Japan and Russia, continued to pursue such research. Thus, important advances in such areas as tandem mirrors and gas dynamic traps have occurred. These proceedings will bring the reader up to date in these and other important areas of open systems research. While such systems have not been in the limelight in recent years relative to prospective fusion power plants, they could play a pivotal role in fusion development. For example, such systems are viewed by many as a logical approach to a volumetric neutron source for studies of radiation damage to materials of interest for use in fusion reactors. Further, if improved direct energy conversion methods (a topic in the conference) are developed, the practicality of using a low-Q mirror or other open system for a power plant may be reconsidered.

In closing, let me add my thanks to the meeting participants for their willingness to put in the extra time required to develop the excellent papers contained in this issue.

*George Miley*