

PREFACE

GUEST EDITOR'S COMMENTS

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This special section of *Fusion Technology* is dedicated to spherical plasma configurations. The preparation and submission of the manuscripts included here are from members of the Spherical Plasma Configuration Group. This is a group recognized by the American Physical Society (APS) as a distinct entity within the APS classification guide. Within the Institute of Electrical and Electronics Engineers, the group holds its own session at the annual International Conference on Plasma Science. The group publishes its own bulletin, the editor of which is Dr. Mounir Laroussi of the University of Tennessee. I chair the group, and Dr. Nikos Salingeros of the University of Texas at San Antonio is the group's secretary.

The range of papers covered in this special section extends from magnetized target fusion to spherical pinch to ball lightning. Experimental, computational, and theoretical aspects of the spherical phenomena are presented here. This presentation is by no means an exhaustive coverage of the plasmas that we study, but it represents a good beginning and a representative cross section. The distinctiveness of our plasmas is due to their similarity of form to such extraordinarily attractive plasmas as the sun, the stars, and even the hydrogen bomb. They clearly also have similarity of form to spherical plasmas studied in the inertial confinement fusion program, but they differ from these mainly in the reduced dimensions of the experiments. Our plasmas are studied for their basic science importance, for industrial applications, or for fusion objectives.

When Dr. Miley invited me to be Guest Editor for this special section on spherical plasma configurations, I accepted with pleasure because it offered me the opportunity to demonstrate the strength of the group through a set of papers where the value of our work could be assessed by a large plasma readership.

The Spherical Configuration Group is open for membership to anyone who is interested or involved in spherical plasma studies. Please write to me if you would like to join our group.