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## PREFACE

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The first two volumes of the Annual Review of Numerical Fluid Mechanics and Heat Transfer have received enthusiastic responses from the science and engineering communities worldwide. The editors are most appreciative of the warm support and fine contribution from the community as a whole. During the preparation for the second volume, unfortunately, the founding editor, T. C. Chawla, became ill and required a lengthy period of recuperation. As a result, I jointed Chawla in editing the second volume, which was subsequently published in early 1989, and have now become the new editor of the series. This unexpected happening, however, has provided the new editor a rare opportunity to take a fresh look and to initiate some enhancement measures after two successful volumes of the series.

Extensive consultation with the relevant research and development community leads to a strong consensus that a refocus on the broad scope of heat transfer is more pertinent for this series at this time. Recently there have been established several new journals specialized separately on numerical or experimental fluid mechanics and/or heat transfer. This is a natural development, considering the accelerating pace in the evergrowing body of literature on both numerical and experimental aspects of fluid mechanics and heat transfer. This further specialization nevertheless points to the increasing need for more general, comprehensive and expository state-of-the-art reviews in fluid mechanics and heat transfer. Considering my own background and expertise and the active participation of the first two volumes from the heat transfer community, it is logical to rename the series as Annual Review of Heat Transfer beginning with this volume.

Despite this redirected focus on heat transfer, the spirit of the original objective remains the same, that is, to provide improved communication on important, new developments in the general field—in this case, heat transfer. The eight chapters in this volume, indeed, reinforce this point as each chapter treats a significant, emerging topic by starting from fundamental physical principles and then proceeding in a logical fashion to the forefront of recent developments. The participating authors in this volume deserve our warm thanks for their outstanding contributions. The editor also wishes to express his deep appreciation for the continuing support and cooperation from the heat transfer community and sincerely welcomes any suggestions and inputs from all interested members of the scholarly community.

*C. L. Tien*