

Interfaces dynamics is of widening interest. Let us quote for instance the study of targets for fusion by inertial confinement, which leads to necessarily forecast the evolution of two phases regarding thermonuclear and inert medium. The normal process will induce the mixing of these two media, and then the extinction of the wished thermonuclear reactions.

For this seemingly limited problem at first sight, one must use the most sophisticated tools for turbulence, and dynamics systems studies, non linear equations and numerical methods.

The reader will find an up to date report on those subjects in this book.

We are grateful to Mrs WILKE, and her team for the exceptionnally efficient organization. She devoted herself tirelessly and kindly to every step of the intellectual and material event. We owe her a fruitful scientific meeting and thank her warmly.



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FOREWORD

We are happy to finally issue the Proceedings of the Royaumont Workshop on Compressible Turbulent Mixing, the third of a series initiated in Princeton in November 1988 and in Pleasanton in October 1989. The next workshop will be organized at the end of March 1993 in Cambridge (UK) by Paul Linden and David Youngs. For the Royaumont proceedings, we have attempted to be fast and decided to simply duplicate the texts as provided by the authors, almost without any editing or reformatting. We are nevertheless late: the deadline for submitting papers was postponed from July to October but the Organizing Committee takes full responsibility for the subsequent delay, mostly due to the preparation of our reports on the roundtable activities.

The proceedings include the papers of most oral or poster presentations at the workshop (three papers are missing) but we have added nine papers by prospective russian participants who unfortunately could not make it to Royaumont. To the 25 papers and 24 posters, we have added qualitative summaries and overviews of the experimental, numerical and theoretical roundtables, and a somewhat lengthy yet uncomplete compilation of some of the numerical test problems results. Clearly a lot more could be done in terms of precise, quantitative comparisons among models, calculations and experiments. Some progress will certainly made on this account for the next workshop.

The Organizing Committee