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Combustion Interactions in a Turbulent Jet""; ""Chapter IV. Turbulent Flames""; ""Investigation on the Laminar and Turbulent Burning Velocities of Premixed Lean and Rich Flames of CH4-H2-Air Mixtures""; ""Geometry Effects on Premixed Turbulent Propagating Flames""; ""Multivariate PDF Closure Applied to Oxidation of CO in a Turbulent Flow""; ""Modeling Turbulent Reacting Flows: Detailed Chemical Reaction Mechanisms and Sensitivity Analysis""; ""Numerical Simulation of a Premixed Flame in a Turbulent Boundary Layer""
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Sommario/riassunto

The four companion volumes on Dynamics of Deflagrations and Reactive Systems and Dynamics of Detonations and Explosions present 91 of the149 papers given at the Twelfth International Colloquium on the Dynamics of Explosions and Reactive Systems (ICDERS) held at the University of Michigan in Ann Arbor during July 1989. Four volumes: Dynamics of Deflagrations and Reactive Systems: Flames (Volume 131) and Dynamics of Deflagrations and Reactive Systems: Heterogeneous Combustion (Volume 132) span a broad area, encompassing the processes of coupling the exothermic energy release with the fluid dynamics occurring in any combustion process. Dynamics of Detonations and Explosions: Detonations (Volume 133) and Dynamics of Detonations and Explosions: Explosion Phenomena (Volume 134) principally address the rate processes of energy deposition in a compressible medium and the concurrent nonsteady flow as it typically occurs in explosion phenomena. In this volume, Dynamics of Detonations and Explosions: Detonations, the papers have been arranged into chapters on gaseous detonations, detonation initiation and transmission, nonideal detonations and boundary effects, and multiphase detonations. Although the brevity of this preface does not permit the editors to do justice to all papers, we offer the following highlights of some of the especially noteworthy contributions.