

Preface

The 2014 SEM Fall Conference in conjunction with International Symposium on Intensive Loading and Its Effects was held in Beijing, China during October 19-22, 2014. The conference provided a forum for researchers and engineers to exchange latest progress in the broad areas of experimental mechanics and mechanics of materials and structures, such as advanced experimental and diagnostic techniques, mechanical response of materials and structures, materials modeling and experimental validation and verification, stress/shock wave propagation and applications.

There were 16 plenary speakers, 29 invited speakers, 120 oral and poster presentations contributed to the conference. Total 49 selected and peer reviewed papers are published in this special issue from the submitted manuscripts. The present book cover the following topics: dynamic behavior of materials and structures, materials served in impact and explosive environments, dynamic damage, failure and constitutive theory, structure failure and engineering protection under extreme loading conditions, multi-scale mechanics: experiments, modeling and simulation, mechanics of time-dependent materials, advanced diagnostic and measurement methods, microelectro-mechanical system design and testing, nondestructive testing and evaluation, and experimental method and application in extreme environment.

The great contributions of all attendees, international scientific committee, as well as the paper reviewers are greatly appreciated.

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