Preface

This volume is a collection of edited papers presented at the 11th International Conference on Fracture and Damage Mechanics (FDM2012), held in Xian, China. Previous meetings were held in London, UK(1999), Milan, Italy (2001), Paderborn, Germany (2003), Mallarca, Spain (2005), Harbin, China (2006), Madeira, Portugal (2007), Seoul, Korea (2008) and St. Julian's Bay, Malta (2009) and Nagasaki, Japan (2010), Dubrovnik, Croatia (2011).

The conference which was attended by researchers from 18 countries served as a forum to promote and exchange latest theoretical, computation and experimental research works on fracture and damage mechanics as well as structural integrity and durability.

The FDM2012 covers a wide range of topics: Fracture Mechanics, Failure analysis, Composites, Multiscale Modelling, Micromechanics, Structural Health Monitoring, Damage Tolerance, Corrosion, Creep, Non-linear problems, Dynamic Fracture, Residual Stress, Environmental effects, Crack Propagation, Metallic and Concrete Materials, Probabilistic Aspects, Computer Modelling Methods (Finite Elements, Boundary Elements and Meshless), Microstructural and Multiscale Aspects.

The Editors would like to thank the members of the Steering Committee and International Scientific Committee for their help and support that were essential to the success of the conference. Furthermore, we express our gratitude to the Northwestern Polytechnic University and Harbin Engineering University for help in promoting the meeting. Finally, we would like to thank all those who helped to organize this scientific event, especially member of The Centre for Foreign Talents Introduction and Academic Exchange of Material Behaviour of Advanced Structure and Materials.

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