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Preface

This special publication contains 52 technical papers which cover recent advances in research and practical applications in engineering issues in karst and ground subsidence, tunneling and underground construction, and deep excavation. Two invited keynote papers by Professor Linde Yang and Professor Jian Zhao (co-authored with Drs. X. B. Zhao, G. W. Ma, H. B. Li, and Y. X. Zhou) summarize recent advances in some key problems on stability analysis of underground rock structures and recent studies of rock dynamics for underground development, respectively. Technical papers in the *engineering issues in karst and ground subsidence* section address investigation, construction, and design issues in karst terrain, and ground subsidence due to withdrawal of fluids. This publication includes a significant number of technical papers in *tunneling and underground construction*, which cover a wide range of topics from box culverts, shield tunnels, to interactions between tunnels and other underground/surface structures. The *deep excavation* section contains technical papers presenting theoretical and case studies on stability and deformations associated with deep excavation.

Each paper published in this ASCE Geotechnical Special Publication (GSP) was evaluated by at least two reviewers including the editors. The authors of the accepted papers have addressed all the reviewers' comments to the satisfaction of the editors. All published papers are eligible for discussion in the Journal of Geotechnical and Geoenvironmental Engineering, and also eligible for ASCE awards.

The papers in this publication were presented during the GeoShanghai International Conference held in Shanghai, China, June 6–8, 2006. This conference was hosted by Tongji University and the Shanghai Society of Civil Engineering, China in cooperation with ASCE Geo-Institute, the Georgia Institute of Technology, the University of Kansas, the University of Tennessee, International Assoc. of Foundation Drilling, Deep Foundation Institute (USA), Saga University (Japan), and Delft University of Technology (Netherlands).

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The editors wish to thank the following individuals who reviewed one or more papers for this geotechnical special publication.

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January 12, 2006

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