PREFACE

It is generally acknowledged that the field of computational structural mechanics has enriched the rational application of mechanics and numerical methods in the practice of modern structural analysis, design and construction of building systems and other structures. In recent years, both the US and China have been actively engaged in research on computational structural mechanics for various engineering disciplines, and have sponsored cooperative research projects in areas of mutually beneficial interest. Researchers from both sides have shared a strong interest in exchanging state-of-the-art information in research and practice.

The Sino-US Symposium/Workshop on Recent Developments and Future Trends of Computational Mechanics in Structural Engineering was held during September 24–28, 1991, in Beijing, China. Its emphasis was to review the current state of knowledge and practice in computational structural engineering, to identify frontal research and development needs, and to stimulate cooperative research efforts among investigators in the US and China as well as other countries.

The technical program of the symposium included the following sessions: failure analysis and finite elements; shells and walls; structural control; computational strategies for buildings; nonlinear analysis; structural optimization; structural reliability; supercomputers, CAD and expert systems.

US delegates were:

Dr. Charles A. Anderson (in collaboration with Dr. Charles R. Farrar)—Los Alamos National Laboratory, New Mexico
Dr. A. H-S. Ang—University of California at Irvine
Dr. James E. Beavers—Center for Natural Phenomena Engineering, Martin Marietta Energy Systems, Inc.
Dr. Ted Belytschko—Northwestern University
Dr. Franklin Y. Cheng (Chairman)—University of Missouri-Rolla
Dr. K. P. Chong—National Science Foundation
Dr. S. C. Liu—National Science Foundation
Dr. Graham H. Powell—University of California-Berkeley
Dr. T. T. (Larry) Soong—State University of New York at Buffalo
Dr. Gerald A. Wempner—Georgia Institute of Technology

Chinese delegates were:

Professor Bao Shihua—Tsinghua University

Professor Ying-Jun Chen—Northern Jiao Tong University

Professor Deng Dahuan—Chinese Academy of Agricultural Mechanization Sciences

Professor Fu Zizhi (Chairman)—Petroleum Design Institute

Professor Huang Yih—Xian Institute of Metallurgy and Construction Engineering

Professor Li Guiqing—Institute of Aseismic Engineering Structures

Professor Li Mingrui—Beijing Agricultural Engineering University

Professor Li Xingsi—Dalian University of Technology

Professor Liang Qizhi—South China University of Technology

Professor Lin Shaopei—Shanghai Jiao Tong University

Professor Liu Guang-dong—Hunan University

Professor Lu Wenda—Tongji University

Professor Wang Guangyuan and Professor Ou Jinping—Harbin Architectural and Civil Engineering Institute

Assc Prof Wang Qizheng—Tsinghua University

Professor Xu Bohou—Zhejiang University

Professor Zhong Wanxie—Dalian University of Technology

Professor Zhou Fu-Lin—Guangzhou Urban Construction Institute

Guest observers and paper contributors for the symposium included: Professor Teizo Fujiwara and Professor Yoshikazu Yamada of Kyoto University, Dr. M. Shoji and Mr. Takashi Matsumoto of Kajima Corporation, Dr. S. C. Fan of Nanyang Technological University, Dr. D. S. Juang of National Central University, Dr. T. W. Lin of National Taiwan University, Dr. J. P. Pu of Feng Chia University, Dr. P. H. Wang of Chung-Yung Christian University, and Dr. Y. B. Yang of National Taiwan University.

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FRANKLIN Y. CHENG
FU ZIZHI

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