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Volume I

Superstring Theory

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Preface

In celebration of the opening of the Center of Mathematical Sciences at Zhejiang University, we held the 2002 String Theory International Conference from August 12th to August 15th at the new Center. The attendance of more than ten prominent mathematicians such as S.Hawking, D.Gross, and E.Witten was a huge sensation in China. These eminent mathematicians, in addition to S.-T. Yau and A. Strominger, had the honor of meeting the former President Jiang Zemin previously in Beijing.

The topic of this conference, string theory, has been a burning science interest for the Chinese people, especially for young scholars. Due to the great interest of the Chinese community, and the high quality of academic research presented, the 2002 String Theory Conference may be said to be the most successful conference which has taken place in the history of science in China.

String theory is a model of fundamental physics whose building blocks are one-dimensional extended objects (strings) rather than zero-dimensional points (particles). Interest in string theory is driven largely by the hope that it will evolve to be the ultimate “Theory of Everything”. Work on string theory has led to advances in many branches of mathematics. This rapidly developing subject is one of the mainstream topics of mathematics in the 21st century.

We hope this proceedings will further promote the research of string theory and its related mathematical topics in China.

During the organization of this conference, we received the strong support of Zhejiang University, the National Science Foundation, Professor Fanghua Lin, Professor Jianshu Li, Professor Chengbo Yue, and Professor Sen Hu. In addition, Professor Lo Yang and Professor Hongwei Xu contributed greatly towards the success of the conference. Here, we would like to take this opportunity to acknowledge them, and show our gratefulness for their efforts.

Shing-Tung Yau, Kefeng Liu
August 28, 2005

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