

BICTAM Annual Report 2018

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(Beijing International Center for Theoretical and Applied Mechanics)

BICTAM promotes the development and application of mechanics and related interdisciplinary branches in the Asia-Pacific region and around the world via symposia, conferences, workshops and publications in 2018. These programs mainly focused on computational mechanics, acoustic/elastic metamaterials, structural and multidisciplinary optimization, microfluidics, nanofluidics and lab on a chip, etc. Over 1000 researchers and graduate students participated in these programs.

BICTAM has a series of brand programs, including “Asia-Pacific Youth Symposium”, “BICTAM Summer School”, “BICTAM Master Lecture Series on Mechanics” and “Sino-Thai Bilateral Workshop”. These brand activities serve as great academic exchange platforms as well as providing chances for collaboration for young scholars.

Symposia

Symposium on Computational Mechanics Based Engineering and Science

The Symposium on Computational Mechanics Based Engineering and Science, which was also regarded as part of the 13th World Congress in Computational Mechanics, was held in New York, United States on July 23-25, 2018. Lectures focused on numerical methods, structure and multidisciplinary optimization, biomechanics, micro/nano-mechanics were delivered during this symposium. This symposium not only provided academic exchange opportunities for researchers in the Asia-Pacific region, but also improved the advancement of mechanics in this region.

The 3rd Symposium for Asia-Pacific Young Scholars

The 3rd Symposium for Asia-Pacific Young Scholars was held in Sendai, Japan on September 25-28, 2018. During the symposium, four invited lectures covering microfluid mechanics, experimental fluid mechanics, computational mechanics, etc. were delivered. A total of more than 30 participants from domestic and abroad exchanged their latest research views in various fields of mechanics.

Conferences

The 2nd International Conference of Microfluidics, Nanofluidics and Lab-on-a-Chip

This conference was sponsored by BICTAM, Institute of Mechanics of Chinese Academy of Sciences and Beijing University of Technology in Beijing, China on June 8-10, 2018. It was intended to provide a highly interactive forum to bring together researchers, engineers around the world with the aim of exchanging the knowledge of the state-of-art research and development in this field, and to inspire new efforts to advance the frontier of the research. Over 300 scientific researchers and engineers from 17 countries and regions gathered here. Seven distinguished plenary speeches were presented during the conference by scientists from around the globe. The 3rd

International Conference of Microfluidics, Nanofluidics and Lab-on-a-Chip will be held in Shenzhen, China.

The 8th International Conference on Fluid Mechanics

The 8th International Conference on Fluid Mechanics (ICFM8) was held in Sendai, Japan on September 25-28, 2018. Topics of ICFM8 included hydrodynamics, environmental fluid mechanics, geophysical fluid mechanics, multiphase flows, non-Newtonian flows, flows in porous media etc. Nearly 80 scholars and students from 14 countries and regions attended the conference.

Workshop

The 2nd Sino-Thai Bilateral Workshop for Young Scholars in Theoretical and Applied Mechanics

The workshop is co-organized by BICTAM and the Faculty of Engineering, Chengdu University in Chengdu, China on November 16-18, 2018. It organized 2 parallel sessions with a total of 20 lectures on the topics of “Tuning Bandgaps in Soft Phononic Plates by Small Deformation”, “Optimal Design for Grid-Tied Solar Power System with Battery-Ultracapacitor Hybrid Energy”, “Scratch Behavior of 3D-Printed Polylactic Acid Texture Surface” etc. Over 40 participants from 15 universities and institutes attended this workshop.

Report composed by Yewen Zhang