

Zhong Fang and Xi Dai won the 2012 Achievement in Asia Award (Robert T. Poe Prize)

Professors Zhong Fang and Xi Dai from the Institute of Physics, Chinese Academy of Sciences, are the joint winners of the 2012 Achievement in Asia Award (AAA) **(ROBERT T. POE PRIZE)** of the International Organization of Chinese Physicists and Astronomers (OCPA).

The OCPA AAA is given annually to a Chinese physicist/astronomers or a team working in Asia in recognition of their outstanding achievements in physics and astronomy. The Award carries a total cash prize of US \$2,000 and a certificate citing the awardee's accomplishments in research.

Professor Zhong Fang and Xi Dai have both received their Ph. D. degrees in Mainland China, namely from Huazhong University of Science and Technology, and the Institute of Theoretical Physics, CAS, respectively. After their Ph. D. degrees, Professor Fang continued his researches in Japan and made important and original contributions in anomalous Hall effect together with N. Nagaosa et al. Professor Dai was in the US and Hong Kong for several years, and his paper with G. Kotliar on first principle calculations by using dynamic mean field theory is highly influential. Professor Fang returned to China in 2003 and founded the group of computational physics in Institute of Physics. Professor Dai joined him in 2006. They are both now professors at the Institute of Physics, CAS.

Professor Fang and Dai's research field is the electronic structure calculations for correlated materials and exotic quantum phases. Their collaboration has led to a number of distinguished contributions to frontier topics in condensed matter physics, and topological insulators in particular, by combining first principal calculations and spin-orbit physics. They predicted the spin density wave instability in the parent compound of iron based superconductors, providing a clear evidence for the interplay between the superconductivity and anti-ferromagnetism. They discovered the salient topological nature of Bi_2Se_3 , Bi_2Te_3 , and Sb_2Te_3 family compounds, a class of 3-dimensional strong topological insulators, which greatly stimulated worldwide activities in the field. They further predicted that quantum Hall effect without external magnetic field (called the quantized anomalous Hall effect) could be realized in magnetically-doped topological insulators. In addition, they have developed the highly efficient LDA+Gutzwiller method for the fully self-consistent calculations of correlated electron systems. Their contributions have been recognized by receiving the prestigious Qiu-Shi Group Outstanding Achievement Prize in Science and Technology in China, and the Outstanding Science and Technology Achievement Prize of CAS in 2011. Prof. Fang was awarded the ICTP Prize (Abdus Salam International Center for Theoretical Physics, Italy) in 2008, and became an APS fellow in 2011.

The winners of the 2012 AAA (the Robert T. Poe Prize) were selected by following panel of distinguished physicists (in alphabetical order):

Professor Che Ting Chan

Hong Kong University of Science and Technology

Professor Choy Heng Lai
Professor Zhengtian Lu
Professor Kenneth Young
Professor Wu-Tsung Weng

National University of Singapore
Argonne National Laboratory
The Chinese University of Hong Kong
Brookhaven National Laboratory

OCPA's AAA activity is a continuing program and represents a long tradition of OCPA to recognize outstanding achievements of the members of the Chinese physics and astronomy community. Previous AAA winners include:

OU-YANG, Zhong-Can	(1993, Institute of Theoretical Physics, China)
ZHU, Qing-Shi	(1994, University of Science and Technology, China)
I, Lin	(1995, National Central University, Taiwan)
WEI, Ching-Ming	(1996, Academia Sinica, Taiwan)
CHING, Emily Shuk-Chi	(1999, Chinese University of Hong Kong)
WANG, Jian	(1999, University of Hong Kong)
CHAN, Che-Ting	(2000, Hong Kong University of Science & Technology)
HOU, Jian-Guo	(2001, University of Science & Technology, China)
YANG, Xue-Ming	(2001, Academia Sinica, Taiwan)
HOU, Wei-Shu	(2002 National Taiwan University)
WANG, Enge	(2002, Inst. of Phys., Chinese Academy of Sciences)
ZHANG, Jie	(2004, Inst. of Phys., Chinese Academy of Sciences)
LI, Baowen	(2005, National University of Singapore)
WANG, Ning	(2006, Hong Kong University of Science & Technology)
LI, Hsiang-nan	(2007, Academia Sinica, Taiwan)
GAO, Hongjun	(2008, Institute of Physics, CAS, China)
East Team	(2009, Institute of Plasma Physics, CAS, China)
Jie Meng	(2009, Beijing University)
Dong-Lai Feng	(2010, Fudan University)
Hai-Hu Wen	(2010, Institute of Physics, CAS, China)
Pei-Ming Ho	(2011, National Taiwan University)