

History of Asian Workshop

**1998: Korea-Japan Joint Meeting on First-Principles
Electronic Structure Calculations (Tsukuba, JRCAT)**

less than 50 participants

1999: 2nd Korea-Japan Joint Workshop (Seoul, KIAS)

**2000: Asian Workshop: 3rd Korea-Japan Joint Workshop
(Tsukuba, NIMS)**

2001: 4th Asian Workshop (Taipei, National Taiwan Univ.)

2002: 5th Asian Workshop (Seoul, Seoul National Univ.)

2003: 6th Asian Workshop (Tsukuba, Tsukuba Univ. + AIST)

2004: 7th Asian Workshop (Tansui, Tamkang Univ.)

2005: 8th Asian Workshop (Shanghai, Fudan Univ.)

2006: 9th Asian Workshop (Seoul, KIAS)

more than 180 participants

2007: 10th Asian Workshop (Hiroshima, Hiroshima Univ.)

Topics in oral presentations from Asian community

- **FeRAM**
- **Spintronics: magnetic tunnel junction**
topological current, magnetic semiconductors
- **Nano objects: nanotubes, graphene nanoribbon, quantum dots**
- **Molecular electronics**
- **Surface structures and adsorption: genetic algorithm, NH₃ self-organization**
- **Electronic structures: borides(CaB₆, EuB₆), CaSrRuO₄**
- **Hydrogen storage**
- **Solution chemistry**
- **Magnetic domains, interface, vortex**
- **Dispersion force**
- **Thermal transport**

Methodology:

order N

genetic algorithm

dispersion force

solution chemistry

Strong industrial connection:

FeRAM (low power and high speed)

hydrogen storage (energy and environment)

thermal transport (heat production)

Proposals of new phenomena:

graphene nanoribbon

topological current

What can be expected ?

- New theory & phenomena
- New method & algorithm
- Software development
 - to be shared among our community
- Applications
 - Stronger impact to society
- Exchange of people, actual collaborations

Thanks to

- Invited speakers from USA and Europe
- All the participants
- Local committee members and their supporting people
- **See you all in Hiroshima (?) next year.**