

21 世紀 COE「物質階層融合科学の構築」第 6 回国際シンポジウム  
The 21<sup>st</sup> Century COE Symposium  
“Exploring New Science by Bridging Particle-Matter Hierarchy”  
December 13-15, 2007  
Lecture Hall (大講義室) Aoba-yama campus

Program

December 13, Thursday

9:30-9:40 Opening Remark (O. Hashimoto)

9:40-12:30 Program 1 (Quark Hadron Physics)

9:40-10:40 Plenary Talk: L. Cardman (Jefferson Lab, USA):

Nuclear Physics - Nature on the Femptometer Scale

10:40-11:00 Coffee Breaks

11:00-11:30 H. Tamura (Tohoku, Japan):

World of matter with strange quarks

11:30-12:00 K. Hagino (Tohoku, Japan):

Brunnian links in nuclear physics

-- Structure of Borromean nuclei  $^{11}\text{Li}$  and  $^6\text{He}$  --

12:00-12:30 T. Neff (GSI, Germany)

Shells, clusters and halos -The challenging world of nuclear structure

12:30-13:30 Lunch

13:30-17:00 Program 2 (Particle Physics and Astrophysics)

13:30-14:30 Plenary Talk: S. Pakvasa (Hawaii, USA) :

Neutrinos from the Earth and the Heavens

14:30-15:00 I. Shimizu (Tohoku, Japan):

Status of KamLAND Anti-Neutrino Analysis and Future Prospects

15:00-15:30 Coffee Breaks

15:30-16:00 H. Saio (Tohoku, Japan):

Progress in Helio-and Astero-seismology

16:30-17:00 G. Smith (Birmingham) :

Early Results from the Local Cluster Substructure Survey (LoCuSS)

December 14, Friday

9:30-12:30 Program 3 (Condensed-Matter Physics I)

9:30-10:30 Plenary Talk: M. S. Dresselhaus (MIT, USA)  
Why are we so excited about carbon nanostructures?

10:30-11:00 Coffee Break

11:00-11:30 H. Ding (Boston, USA)  
Probing high temperature superconductors through photoelectrons  
11:30-12:00 K. Tanigaki (Tohoku, Japan)  
Atoms and Molecules in Nano Confinement Spaces  
- From the Viewpoint of Solid State Physics

12:00-12:30 K. Iwasa (Tohoku, Japan)  
Phase Transitions of Higher Rank Electron Multipoles

12:30-12:40 Photo

12:40-13:40 Lunch

13:40-15:40 Program 4 (Condensed-Matter Physics II)

13:40-14:40. Plenary Talk: F. Steglich (MPI-CPfS Dresden, Germany):  
Unconventional superconducting states in heavy-electron metals

14:40-15:10 S. Ishihara (Tohoku, Japan):  
Orbital Physics in Correlated Electron System  
- Direction and Frustration -

15:10-15:40 T. Ishihara (Tohoku, Japan)  
Photo-induced voltage in metallic photonic crystals and metamaterials

15:40-17:00: Poster Session(Ground Floor at Rigaku-sougou tou:理学総合棟 1 階)

18:30- Banquet (First Floor at Rigaku-sougou tou; 理学総合棟 2 階)

December 15, Saturday

9:30-12:30 Program 5 (Mathematical Sciences)

9:30-10:30. Plenary Talk: H. Aman (Zurich, Switzerland)  
Image processing by diffusion

10:30-11:00 Coffee Break

11:00-11:30 M. Varghese (Adelaide, Australia):  
T-duality in the presence of a topologically nontrivial H-flux

11:30-12:00 M. Kotani (Tohoku, Japan)  
Geometric Aspects of random walk on a crystal lattice

12:30-13:00 E. Yanagida (Tohoku, Japan)  
Principal eigenvalue for an elliptic problem with indefinite weight and its  
application to population dynamics

13:00-13:10 Closing Remark (T. Futamase)