

National Taiwan Normal University and Osaka City University
Joint Workshop

國立臺灣師範大學 大阪市立大学 合同研究会

Date: Sep. 29 (Fri.), 2017 10:30 - 18:00

Place: Osaka City University Media Center ("GAKUJYO(学情)")

Large Meeting Room (10th Floor)

Program

10:30-10:40 *Opening Remarks (Prof. Wu(NTNU), Prof. Ogio(荻尾,OCU))*

10:40-12:00 *Advances in Theoretical Condensed Matter Physics*

Deng-Ruei Tan "Universal scaling of Neel temperature and staggered
(NTNU) magnetization of three-dimensional dimerized spin-1/2
antiferromagnets"

Yoshimichi "Field induced SU(4) to SU(2) Kondo crossover in a carbon
Teratani nanotube quantum dot: theoretical examination into evolution of
(寺谷義道,OCU) local Fermi liquid state"

Yu-Yo Chen "Strong disorders induced stripe-smectic-nematic phase
(NTNU) transition in underdoped *d*-wave superconductors"

Satoshi Yui "Quantum turbulence in superfluid ⁴He: numerical simulation of
(湯井悟志,OCU) two-fluid model"

Chair: Inouye(井上)

12:00-12:05 *Photo*

12:05-13:15 *Lunch Break*

13:15-14:15 *Insights into Fundamental Physics*

Dong-Jing Yang "Gluon fragmentation functions in the Nambu-Jona-Lasinio model"
(NTNU)

Tatsuya Ogawa "Charge-shielded non-topological solitons"
(小川達也,OCU)

Chien-Te Li "Applications of neural networks to the studies of phase transitions
(NTNU) of two-dimensional Potts models"

Chair: Maru(丸)

14:35-15:55 *New Approaches for Exploring the Universe*

Ryosuke Sahara "Method of detecting cosmic rays in Telescope Array
(佐原涼介,OCU) experiment"

Ubaid Zaman "Effective Field Theory Methods in Gravitational Physics"
(NTNU)

Akinobu Miyamoto "Possible confirmation of the existence of Population III stars
(宮本晃伸,OCU) by observations of gravitational waves"

Mei-Ting Lin "Introduction to Weak Measurements and Weak Values"
(NTNU)

Chair: Tsunesada(常定)

16:15-17:55 *Data Analysis Revisited*

Yu-Kuang Chu "Photon Calibrator in Gravitational Wave Detector"
(NTNU)

Wei-Ren Hsu "Data Analysis of Gravitational Wave"
(NTNU)

Yuma Azuma "Development of data acquisition system for a new neutrino
(東佑真,OCU) detector WAGASCI"

Han-Shiang Cuo "Accelerating the computing with GPU"
(NTNU)

Marika Sasai "Evaluation of noise characteristics of iKAGRA data:
(佐々井毬花, OCU) Gaussianity, Stationarity and Bi-spectrum"

Chair: Tsunesada(常定)

17:55-18:00 *Closing Remarks*

(End of Program)