

# QCLM2015: Quantum Control of Light and Matter

14-16 January 2015, OIST Seaside House, Okinawa, Japan

## 14 Jan, Wednesday

- 14:00            Opening S. Nic Chormaic
- 14:30 - 15:30    M. Nakahara (Kinki University, Japan)  
Improved Topological Vortex Formation in BEC of Alkali Atoms
- 15:30 - 16:30    X. Chen (Shanghai University, P. R. China)  
Optimal atom transport in presence of error and noise
- 16:30 - 17:00    Coffee Break
- 17:00 - 18:00    K. Maruyama (Osaka City University, Japan)  
Hamiltonian identification under limited access with minimal pre-knowledge
- 19:00 -           Working Dinner

## 15 Jan, Thursday

- 9:00 - 10:00    T. Busch (OIST Graduate University, Japan)  
Engineering of Quantum Systems by Controlling Interactions
- 10:00 - 11:00    K. Nemoto (National Institute of Informatics, Japan)  
Quantum manipulation of a NV center in an optical cavity for quantum computation and communication
- 11:00 - 11:30    Coffee Break
- 11:30 - 12:30    K. Takahashi (Tokyo Institute of Technology, Japan)  
Quantum brachistochrone
- 12:30 - 14:30    Discussion and Lunch
- 14:30 - 15:30    S. Masuda (The University of Chicago, USA)  
Selective vibrational population transfer in a polyatomic molecule by counter-diabatic assisted STIRAP and fast-forward assisted STIRAP
- 15:30 - 16:30    D. Burgarth (Aberystwyth University, UK)  
Quantum Control: introducing QTRL and its sonification
- 16:30 - 17:00    Coffee Break
- 17:00 - 18:00    S. Nic Chormaic (OIST Graduate University, Japan)  
A hybrid system based on optical nanofibres for probing and trapping atoms
- 19:00 -           Working Dinner

## 16 Jan, Friday

- 9:00 - 10:00    C. Uchiyama (University of Yamanashi, Japan)  
Nonadiabatic effect on the quantum heat flux control
- 10:00 - 11:00    U. Gngrd (University of Nebraska-Lincoln, USA)  
Non-Adiabatic Universal Holonomic Quantum Gates Based on Abelian Holonomies
- 11:00 - 11:30    Coffee Break
- 11:30 - 12:30    E. Sjqvist (Uppsala University, Sweden)  
Nonadiabatic holonomic control
- 12:30 - 14:30    Discussion and Lunch