

## Interdisciplinary Workshop 「Quantum optics in various physical system」

Date : 2011/3/22 through 3/23

Venue : Kyoto Hyatt Regency Hotel <http://kyoto.regency.hyatt.jp/>

Organizers : Jaw-Shen Tsai · RIKEN, Masahiro Kitagawa · Osaka Univ.

### ◆Program : (Presentation 40 mins. Discussion 20 mins.)

#### 3/22 (Tue)

13:00-13:10 Introduction : Organizers Tsai, Kitagawa

13:10-14:10 Quantum optics of superconducting systems (Astafiev · RIKEN, et al.)

14:10-15:10  $\Lambda$ 型三準位系を用いた決定論的光子量子ゲート理論 (Koshino · TMDU, Ishizaka · Hiroshima Univ., Nakamura · RIKEN/NEC)

15:10-15:30 Coffee Break

15:30-16:30 光と原子を用いた量子光学の実験最前線 (Kozuma · Tokyo Institute of Tech.)

16:30-17:30 遠隔非破壊/パリティ測定理論 (Koashi · Osaka Univ., Higashi · NTT, Imoto · Osaka Univ.)

17:50-19:00 Dinner

19:20-20:20 Lamp session

#### 3/23 (Wed)

08:45-9:45 The BEC-BCS crossover of exciton-polaritons in semiconductor  
(Tim Byrnes · NII)

09:45-10:45 Toward highly efficient coupling between single photons and diamond NV centers  
(Takeuchi, Fujiwara · Hokkaido Univ. et al.)

10:45-11:00 Coffee break

11:00-12:00 Unconditional Spin Squeezing via Quantum Measurement and Control  
(Inoue · Kyoto Univ.)

12:00-12:30 Free discussion, discussion about the next meeting