

**8TH SUMMER SCHOOL ON
SEMICONDUCTOR/SUPERCONDUCTOR QUANTUM
COHERENCE EFFECT AND QUANTUM INFORMATION**

第8回半導体/超伝導体量子効果と量子情報の夏期研修会

1. SCOPE

This summer school aims to gather researchers and students to enhance active discussions on current topics related to quantum effects and quantum information in semiconductor and superconductor structures.

2. DATE AND VENUE

Date: 4–6th September , 2018
Venue: Hotel Sunvalley Nasu, Annex building, Hisho-no-ma
URL: <http://www.nasu3800.co.jp/>
Address: 203 Yumoto, Nasu-machi, Nasu-gun, Tochigi Prefecture
Tel: 0287-76-3800

8. PROGRAM

September 4, 2018 (Tuesday)

13:00-13:10 Opening: Yoshiro Hirayama (Tohoku Univ.)

Chair: Yoshiro Hirayama (Tohoku Univ.)

13:10-14:00 **Scanning gate imaging in quantum Hall systems**

(Invited) Katsushi Hashimoto (Tohoku Univ.)

14:00-14:20 **Majorana Kramers pairs in higher-order topological insulators**

Chen-Hsuan Hsu (RIKEN)

14:20-14:40 **Energy dependence of e-e scattering on quantum Hall edge channels**

Syunya Akiyama (Tokyo Tech.)

14:40-15:00 Refreshment Break

Chair: Tomohiro Otsuka (Tohoku Univ.)

15:00-15:20 **Phase transitions in quantum annealing on a qudit system**

Yuya Seki (AIST)

15:20-15:40 **Theory of g-factor in quantum dots**

Peter Stano (RIKEN)

15:40-16:00 **A quantum interface between different spin qubit encodings**

Akito Noiri (RIKEN)

16:00-16:20 Refreshment Break