

The NCTS Mini-workshop on Topology and Strong Correlations in Quantum Many-body Systems

- **Date :** 2015 Dec.21st ~ 22nd
- **Place :** B1 Auditorium, Science building III,
National Chiao-Tung University

- **Speakers :**

International speakers:

Cenke Xu (UCSB, USA)

Chao-xing Liu (Penn State U., USA)

Shin-Ming Huang (NUS, Singapore)

Domestic speakers:

Wei-Feng Tsai (NSYSU)

Chung-Yu Mou (NTHU)

Horng-Tay Jeng (NTHU)

Chung-Hou Chung (NCTU)

Yu-Miin Sheu (NCTU)

Yu-Chung Lin (NTU)

Sung-Po Chao (Academia Sinica)

- **Organizers:**

Chung-Hou Chung

Chung-Yu Mou

Wei-Feng Tsai

Sung-Po Chao

- **Registration Website:** (Deadline: Dec. 07)

<http://phys.cts.nthu.edu.tw/actnews/content.php?Sn=257>

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Program

Dec. 21 Mon.

Time / Chair	Speakers/Title
10:00~10:30	Registration
10:30~10:35	Opening remarks
10:35~11:35	Cenke Xu (UCSB, USA) <i>Exotic Quantum Phase Transition between Strongly Interacting topological insulators without sign problem</i>
11:35~12:05	Chung-Yu Mou (NTHU) <i>Finite temperature topological phase transitions and emergence of Dirac semi-metallic phases in a Kondo lattice</i>
12:05~13:30	Lunch break
13:30~14:30	Wei-Feng Tsai (NUS, Singapore) <i>Spin texture and competing orders associated with strains on the surface of a topological crystalline insulator</i>
14:30~15:00	Chung-Hou Chung (NCTU) <i>Helical Majorana fermions in $dx^2-y^2 + i dxy$-wave topological superconductivity of doped correlated quantum spin Hall insulators</i>
15:00~15:20	Tea/Coffee Break
15:20~16:20	Shin-Ming Huang (NUS, Singapore) <i>Duality in topological superconductors and magnetic topological insulators in a honeycomb lattice</i>
16:20~16:50	Sung-Po Chao (Academia Sinica) <i>Controversy over large proximity induced s wave like pairing from a d wave superconductor</i>

Dec. 22 Tue.

Time / Chair	Speakers/Title
9:30 ~10:30	Chaoxing Liu (Penn State U) <i>Topological nonsymmorphic crystalline superconductors</i>
10:30~11:00	Horng-Tay Jeng (NTHU) <i>Newtype large Rashba-splitting in quantum-well-state induced by spin-chirality in metal/topological-insulator</i>
11:00~11:20	Tea/Coffee Break
11:20~11:50	Yu-Chung Lin (NTU) <i>Symmetry forbids topological insulator phase induced by band inversion in arsenene</i>
11:50~12:30	Yu-Miin Sheu (NCTU) <i>Photo-creating metastable states in a spiral-spin multiferroic manganite</i>
12:30~14:00	Lunch break
14:00~17:00	free discussions

