



第 50 回トポロジカル物質科学セミナー
Topological Materials Science Seminar (50)

**Fractional Chern insulators: From higher Chern number
phases to non-Abelian twist defects**

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**Place: Room 201a, Faculty of Science Bldg. #1, Hongo Campus,
Univ. of Tokyo (東大本郷キャンパス理学部 1号館 201a 号室)**

Date: August 24 (Thursday), 2017

Time: 13:45-15:00

Abstract:

In this talk I will discuss fractional Chern insulators with emphasis on the analogy with more conventional continuum Landau level physics – and on aspects that are qualitatively new in the lattice setting such as Berry curvature fluctuations, competing instabilities and novel collective states of matter emerging in bands with higher Chern number. I will also explain how the lattice setting naturally allows for exotic extrinsic wormhole-like twist defects (aka “genons”) that effectively increase the genus of space.