

International Workshop

# Novel Phenomena in Quantum Materials driven by Multipoles and Topology

April 9<sup>th</sup> - 10<sup>th</sup> @ [Media Hall, Kashiwa Library](#)

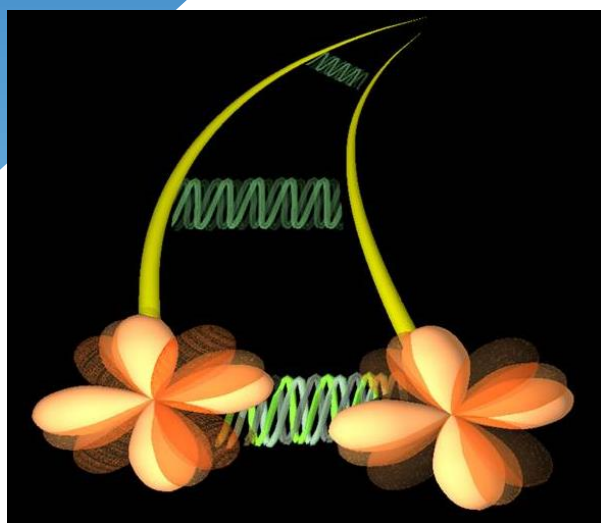


J-Physics

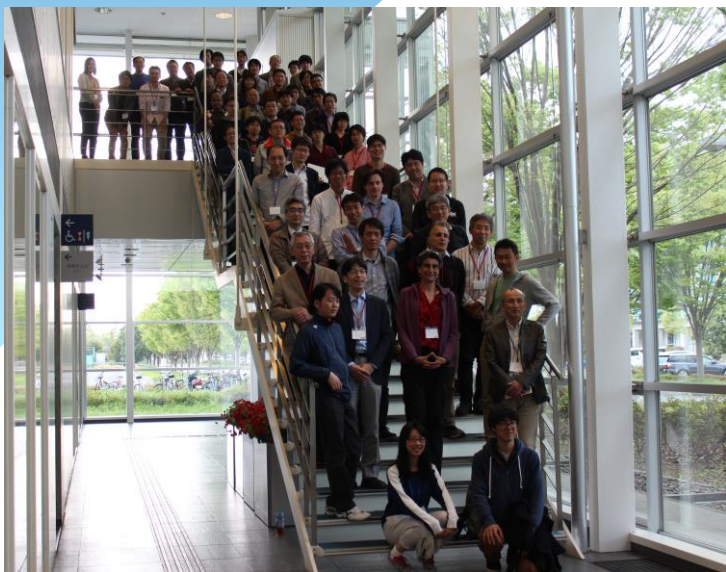


## Topics

- Novel Multipolar Ordering
- Topological Spin Liquids
- Exotic Superconductivity
- Itinerant Frustration
- Quadrupolar Kondo Lattices
- Topological Kondo Insulators
- Correlated Weyl Metals
- Quantum Criticality



In recent years, the study of quantum materials, in particular of strongly correlated electron systems, have been enriched by the introduction of new physics based on multipoles and topology. The workshop will bring together scientists exploring the novel phenomena in new materials, and novel functionality by using spintronics and photonics, to share the latest knowledge and to fertilize new research directions.



[Program](#)

[Poster Presentation](#)

[Photo](#)

*Thank you for your attendance!*

## Invited Speakers

- |                           |                           |
|---------------------------|---------------------------|
| P. Chandra (Rutgers U.)   | K. Matsubayashi (UEC)     |
| P. Coleman (Rutgers U.)   | S. Miwa (ISSP)            |
| Y. Ran (Boston College)   | T. Onimaru (Hiroshima U.) |
| H. Amitsuka (Hokkaido U.) | A. Sakai (ISSP)           |
| D. Aoki (Tohoku U.)       | T. Shibauchi (U. Tokyo)   |
| S. Fujimoto (Osaka U.)    | S. Suzuki (ISSP)          |
| T. Higo (ISSP)            | Y. Tada (ISSP)            |
| Z. Hiroi (ISSP)           | M. Takigawa (ISSP)        |
| Y. Kasahara (Kyoto U.)    | M. Yamada (ISSP)          |
| H. Kobayashi (U. Hyogo)   | M. Yamashita (ISSP)       |
| T. Kondo (ISSP)           | Y. Yanase (Kyoto U.)      |

## Scientific Coordinators

Satoru Nakatsuji (ISSP)  
Masaki Oshikawa (ISSP)  
Hisatomo Harima (Kobe U.)

## Organization

[Quantum Materials Group](#), ISSP, U. Tokyo  
[J-Physics](#), KAKENHI on Innovative Areas