



# Nuclear Spin-isospin Physics: from Phenomena to Fundamentals

**Date:** September 29, 2021 (Wednesday)

**Time:** 10:00 a.m.

**Zoom Online Lecture:**

<https://bit.ly/3tYKJDp>

**Meeting ID:** 941 1856 3503

**Password:** 2859



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## Abstract:

Spin and isospin are essential degrees of freedom in nuclear systems, and the relevant studies on their properties play important roles not only in nuclear physics but also in nuclear astrophysics and particle physics. In this talk, I will first introduce the studies on nuclear spin-isospin properties in the framework of covariant density functional theory (DFT), on the topics of nuclear charge-exchange resonances, beta decays, isospin-symmetry breaking corrections to nuclear superallowed beta transitions, etc. For developing the next-generation nuclear DFT with more fundamental theories, I will also talk about an ongoing work about functional renormalization group and Kohn-Sham scheme in DFT.

## Biography:

Dr. Haozhao Liang got his co-supervision Ph.D. degrees in Peking University, China, and Université Paris-Sud XI (now Université Paris-Saclay), France in 2010. He became a tenured Research Scientist in RIKEN in 2015 and guest Associate Professor in Graduate School of Science, The University of Tokyo in 2016. In 2020, he joined in Department of Physics, The University of Tokyo as a tenured Associate Professor and became the only lab PI in nuclear structure theory there. Dr. Haozhao Liang's research interests are mainly focusing on nuclear density functional theory, and the relevant interdisciplinary applications in nuclear physics, nuclear astrophysics, and particle physics. For his contributions in this field, he was awarded The International Union of Pure and Applied Physics (IUPAP) Young Scientist Prize in 2016.

**Anyone interested is welcome to attend!**

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