

# The multimodality of Ir-187 fission

*Saturday 23 August 2025 16:04 (12 minutes)*

As a complex, large-amplitude deformation quantum many-body system, nuclear fission reflects the competition between single-particle and collective behaviors, leading to the coexistence of multiple fission modes for the same fissioning nucleus. Both past and recent experiments indicate that  $^{187}\text{Ir}$  undergoes predominantly symmetric fission, while several theoretical predictions favored asymmetric fission. In this presentation, I will report our analysis of the fission modes of  $^{187}\text{Ir}$  and discuss possible reasons for the dominance of symmetric fission.

## Research field of your presentation

Theoretical Low-energy nuclear physics

**Author:** Mr HUANG, Yingge (Sun Yat-sen Univ. / Univ. of Tokyo)

**Co-author:** Prof. SU, Jun (Sun Yat-sen Univ.)

**Presenter:** Mr HUANG, Yingge (Sun Yat-sen Univ. / Univ. of Tokyo)

**Session Classification:** Young scientist session 1