International Conference on Chirality and Wobbling in Atomic Nuclei



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Development and cooperation on γ-spectroscopy instruments

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The decay of the excited states of the atomic nucleus is almost always companied by gamma radiation. Large gamma detection platform, which could give the most important observables of the nucleus, is proved to be one of the essential instruments of the laboratories around the world. A new detector array consisting of 32 detection elements of the early phase, including 16 coaxial HPGe detectors, 8 Clover HPGe detectors and 8 LaBr detectors, was built at Institute of Modern Physics of CAS. It is one of the most efficient gamma detector arrays in Asia, with capability of measuring hyperfine spectroscopies containing lifetimes, and sustaining the most frontier nuclear studies. In addition, reliable auxiliary equipments such as high speed/capacity electronic, DAQ, and automatic cooling system have been developed for the detector array. The array is currently serving at the low energy beam line of the HIRFL facility for the in-beam gamma spectroscopy. Additionally, it is traveling around China and world for other collaborative projects. The details of the array will be presented.

Author: LI, Guangshun (Institute of Modern Physics, CAS)Orateur: LI, Guangshun (Institute of Modern Physics, CAS)

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