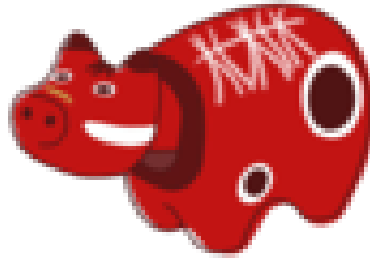


# Single-particle and collective motions from nuclear many-body correlation (PCM2025)



Contribution ID: 87

Type: **not specified**

## Direct Reactions as Quantum Probes of Nuclei

*Thursday, 6 March 2025 16:15 (25 minutes)*

In studies of nuclear physics during the last decades, the area of nuclides in the nuclear chart available for experiments increases drastically because of developments of rare isotope beam facilities as well as of experimental technique. Systematic studies of nuclear structure are performed as a function of numbers of protons and neutrons, which show evolution of structures, exotic phenomena and so on. Among various kinds of nuclear reactions, direct reactions are unique and important tools for studying quantum properties of nuclei, where actions with certain quantum numbers are instantaneously applied to nuclei.

In this talk, I will present examples of direct reactions in these days based on the view that such reactions provide sudden transition to the target with various quantum numbers.

### Type of contribution

### Are you a student or postdoc?

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**Session Classification:** session #11