

## **Recent progress and future perspectives in the theory of direct reactions and exotic nuclei (Keynote Talk)**

*Monday, 11 July 2016 09:30 (30 minutes)*

As existing and upcoming radioactive ion beam facilities promise unprecedented access to a vast new array of exotic phenomena, a complete understanding of nuclei and their role in the cosmos cannot be achieved without a solid connection between measured reaction observables and predictions of nuclear structure theory. This requires practical, yet robust models of direct nuclear reactions and a clear understanding of their limits of applicability. In this talk I will present an overview of recent progress in the theory of direct reactions with exotic nuclei, as well as an example of how ab initio calculations are starting to bridge the gap between structure and reactions in light exotic nuclei. I will then reflect on future perspectives of the field.

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