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## Overview of recent direct-reaction measurements in inverse kinematics at the ISOLDE Solenoidal Spectrometer, CERN

*Monday, 24 June 2024 14:30 (20 minutes)*

The ISOLDE Solenoidal Spectrometer (ISS) specialises in the study of direct reactions in inverse kinematics. The ISS was fully commissioned in 2021 with a new silicon detector array and has since undergone three successful physics campaigns. This talk will give an overview of the technical capabilities of ISS, as well as present recent measurements taken using the device. These focus on the single-particle properties of a variety of nuclear systems probed using the single-neutron adding ( $d, p$ ) reaction. They include, but are not limited to, studies of the structure of neutron-rich Be isotopes; the evolution of single-particle states into the  $N = 20$  Island of Inversion in  $^{31}\text{Mg}$ ; and trends in single-particle states along  $Z = 50$  in neutron-deficient Sn isotopes and along  $N = 127$  north of  $^{208}\text{Pb}$ .

### Collaboration

ISOLDE Solenoidal Spectrometer, CERN

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