Contribution ID: **76**   Type: **Oral presentation**

Predicting and constraining level densities and gamma-ray strength functions

Thursday 30 May 2024 09:00 (30 minutes)

Level densities and gamma-ray strength functions are critical inputs for statistical reaction calculations of (n,g), (n,n'), (n,2n), and multiple other reactions. Ideally, we predict these Hauser-Feshbach inputs, along with suitable optical potentials, for the vast number of isotopes of interest to applications. More realistically, we will have to pursue a combination of theoretical predictions, indirect approaches, and direct measurements to achieve our objectives. I will describe ongoing work to combine microscopic structure and reaction theories to predict and constrain level densities and gamma-ray strength functions needed for Hauser-Feshbach calculations of neutron-induced reactions on isotopes near and away from the valley of stability.

Author: Dr ESCHER, Jutta (Lawrence Livermore National Laboratory)

Presenter: Dr ESCHER, Jutta (Lawrence Livermore National Laboratory)