The impact of systematic and statistical nuclear uncertainties on the p-process nucleosynthesis

Wednesday 16 October 2024 15:00 (20 minutes)

The p-process nucleosynthesis can explain proton-rich isotopes that are heavier than iron, which are observed in the Solar System, but discrepancies still persist (e.g. for the Mo and Ru p-isotopes).

We investigate both the systematic and statistical uncertainties associated with theoretical nuclear reaction rates of relevance during the p-process and explore their impact on the p-process elemental production in exploding rotating massive stars and in type Ia supernovae.

We discuss the effect of nuclear uncertainties on the p-process production and especially their impact on the Mo and Ru p-isotopes production.

Length of presentation requested

Oral presentation: 17 min + 3 min questions

Please select a keyword related to your abstract

Nuclear Theory and Experiments

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