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s process in massive stars: theoretical predictions and nuclear and stellar uncertainties

Thursday, 22 June 2017 09:00 (30 minutes)

After introducing the slow neutron capture process in massive stars, the so-called weak s process, I will present recent theoretical predictions for the weak s process covering a wide range of initial masses and metallicities. I will in particular discuss the strong effects of rotation at low metallicities and how they boost the weak s process. I will then compare the predictions to observations and discuss the key nuclear and stellar uncertainties involved. I will end with conclusions and future outlook.

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Session Classification: Stellar models

Track Classification: Stellar evolution and nucleosynthesis