## 2018 JINA-CEE Frontiers in Nuclear Astrophysics



Contribution ID: 22 Type: invited talk

## Nucleosynthesis in rotating massive stars and abundances of metal-poor stars

Thursday, 24 May 2018 11:00 (30 minutes)

Rotation largely affects the nucleosynthesis in massive stars, especially at low-metallicity. It triggers exchanges of material between different burning zones, leading to a strong overproduction of both light (e.g. C, N) and heavy (e.g. Sr, Ba) elements. After reviewing the interplay between rotational mixing and nucleosynthesis, I will discuss how surface chemical abundances of long-lived low mass metal-poor stars can provide hints on the nature of the early generation of massive stars, especially on their rotation and explosion. Particular attention will be paid to the peculiar Carbon-Enhanced Metal-Poor stars and their different formation scenarios.

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Session Classification: Session M5