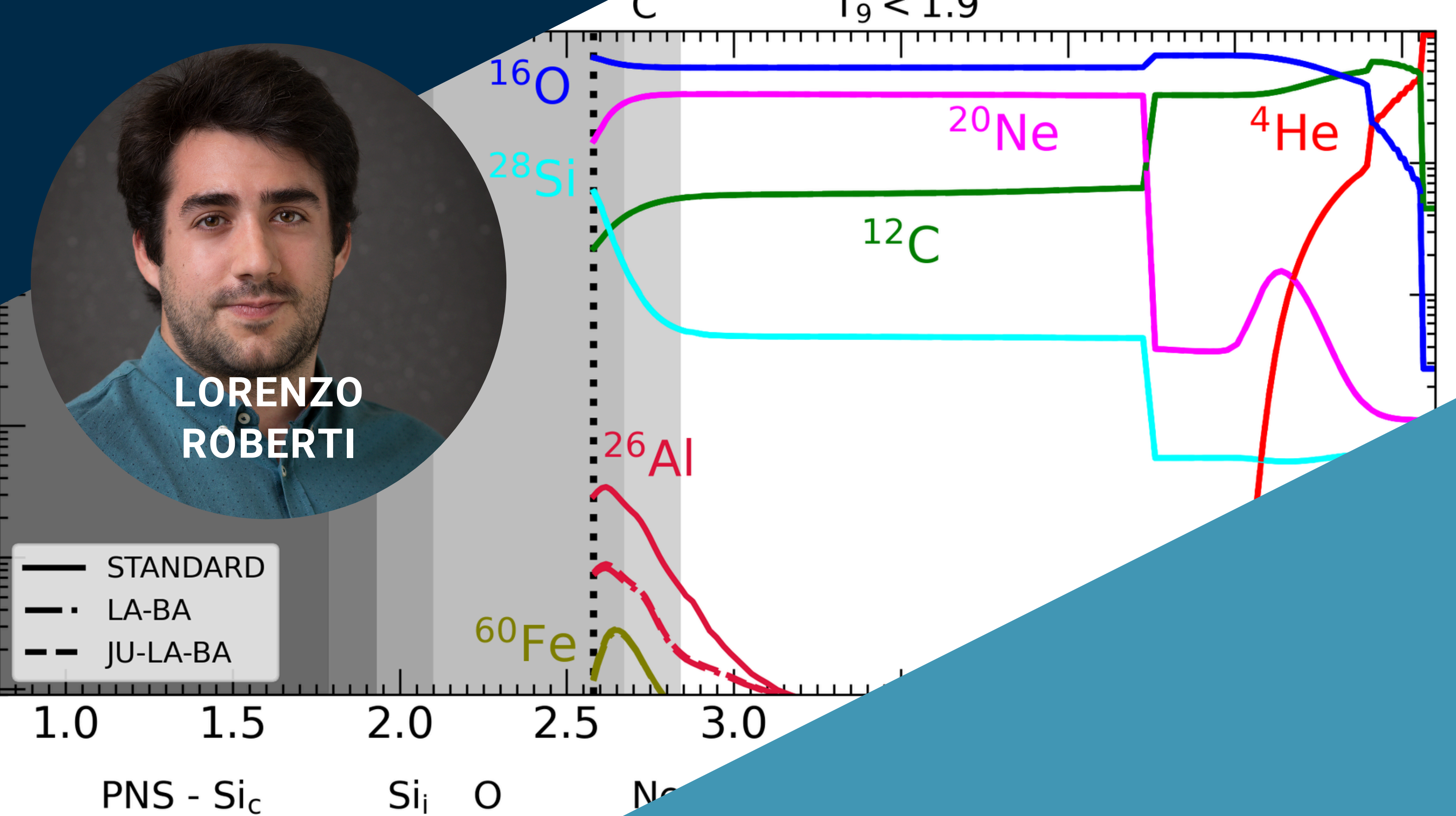




LORENZO ROBERTI



THE ^{26}Al PRODUCTION IN MASSIVE STARS

The synthesis occurring in stars of the radioactive nuclide ^{26}Al , characterized by a half-life of 0.72 Myr, plays a pivotal role in enhancing our comprehension of the genesis of our solar system and the evolution of stars and galaxies, and is a subject of interest in both gamma-ray astrophysics and cosmochemistry. Massive stars (and their death as core-collapse supernovae) are the considered the principal site of production for ^{26}Al , contributing to approximately 70% of the observed live ^{26}Al in the Milky Way. In this talk, I will overview the main production channels of this peculiar nuclear species, discussing the impact of reaction rates, of stellar properties such as rotation and initial mass, and of the core-collapse supernova explosion on the ^{26}Al nucleosynthesis.

ESPRESSO SEMINARS
3 APRILE 2025 | ORE 11:30
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