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Magnetic mixing and s-processing in AGB stars

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Asymptotic giant branch stars are major sources of heavy elements in the Universe.
Despite the huge progress made in the last decades in the theoretical modeling of these objects, mixing processes occurring in their interiors are quite uncertain, especially the physical mechanism leading to the formation of the ^{13}C pocket. Here, I will present recent results from the new generation of FRUITY models, including the effects of mixing triggered by magnetic fields. I will show comparisons with available observational constraints provided by isotope ratios of heavy elements in presolar grains and spectroscopic observations of carbon AGB stars and Galactic open clusters.

Session

Stellar nucleosynthesis

Primary author: VESCOVI, Diego (Goethe University Frankfurt)

Co-author: CRISTALLO, Sergio

Presenter: VESCOVI, Diego (Goethe University Frankfurt)

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