

## Nuclear reaction rates in stellar conditions as input for stellar models

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Nuclear reaction rates in stellar conditions, or close to, are among the key parameters for stellar models. In the last 2-3 decades, huge efforts have been dedicated to their experimental determination with the least feasible uncertainty. In particular, Hydrogen burning key reactions belonging to pp chain and CNO or successive cycles (NeNa, MgAl) have been measured. In this talk, after a general introduction on the main challenges of nuclear astrophysics, the present status of the art for the knowledge of reaction rates will be reviewed, with some specific examples. Moreover, the future possibilities of investigating Helium and Carbon burning reaction rates will be described.

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