
Turbulent transport in radiative zones : recent theoretical and numerical developments

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Abstract

Many physical processes can potentially generate turbulence in stellar radiative zones, but limited observational constraints and uncertainties in the modelling of turbulent transport make it difficult to identify the most relevant processes. Renewed interest in this field has been sparked by the inability of existing hydrodynamical models to explain seismic measurements of rotation rates in the cores of red giants and intermediate mass stars. In this talk, I shall review recent theoretical and numerical work aimed at advancing our understanding of turbulent transport in radiative zones.

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