Jeudi 13 février 2025 à 11h (IAS, bâtiment 209D, RDC)

Helio- and asteroseismic inferences of the properties of transport processes in stellar interiors

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In this seminar, I will discuss how high-quality helio- and asteroseismic data allows to draw a global picture of the current issues linked with angular momentum transport in the Sun and stars. I will discuss results on the "smoking gun" of lithium and beryllium depletion based on recent observations and how it may help us derive contraints on the main-sequence and how the solar case may help us infer precisely an "almost model-independent" radiative opacity profile in the solar radiative zone. This opacity profile can be compared to up-to-date ab-initio calculations and shine new light on potential missing processes in opacity computations. Finally, I will put into perspective how the solar problem is directly linked with the results of new inversions of the internal rotation profile of subgiant stars observed by Kepler.