

# Quantitative analysis of the solar abundance problem

*Tuesday 12 June 2018 11:00 (30 minutes)*

I will perform a quantitative analysis of the solar abundance problem. I will discuss the properties of the Sun that can be constrained by solar neutrino fluxes and helioseismic observables. I will consider, in particular, the helioseismic and neutrino constraints on the opacity profile of the Sun and the degeneracy between effects produced by chemical composition and opacity modifications. I will then comment on the importance of neutrinos produced within the CN-NO cycle (CNO and ecCNO neutrinos) and on the perspectives for their detection.

**Primary author:** Prof. VILLANTE, Francesco (Università dell'Aquila and INFN-LNGS)

**Presenter:** Prof. VILLANTE, Francesco (Università dell'Aquila and INFN-LNGS)

**Session Classification:** CNO Cycle: Theoretical Aspects and Experimental Perspectives