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**Dust survival in harsh environments: is photo-evaporation an important destruction mechanism?**

Dust is a key component of the interstellar medium (ISM) and plays a critical role in various astrophysical processes, including star formation and the absorption and scattering of stellar radiation. Understanding the mechanisms governing dust formation and destruction is essential for unraveling the intricate interplay between dust, gas, and radiation. In this talk, I will provide an overview of the various dust destruction mechanisms operating in the ISM, including astration and supernovae shocks. In particular, we investigated the efficiency of dust photo-evaporation induced by star formation and by evolved stars in the planetary nebulae phase. In order to do so, we calculate the stability of carbonaceous and silicate grains against evaporation induced by the absorption of ultraviolet photons from young stars and from the central stars in planetary nebulae. We consistently include photo-evaporation in calculations that follow dust evolution in the ISM of galaxies in order to assess the efficiency of this mechanism as a function of the physical parameters, e.g. dust-to-gas ratio, star formation history and initial mass function of stars. We compare this mechanism with others included in dust evolutionary models, i.e. outflow, astration and dust destruction from supernovae shocks.

Serdecznie zapraszam,  
Miguel Figueira Sebastiao, on behalf of the SOC