

Homogeneity of dust depletion in various environments

Jens-Kristian KROGAGER (CRAL) en collaboration avec:

Christina KONSTANTOPOULOU (UNIGE), Annalisa DE CIA (UNIGE)

Abstract

Dust grains play a crucial rôle in the thermal regulation of the ISM and serves as a catalyst for the formation of molecules. However, very little is known about the formation and composition of dust grains in various environments. By studying metal absorption lines in quasar and stellar spectra we can observe direct evidence for dust depletion, that is, refractory elements are missing from the gas phase. This talk will highlight current developments in our understanding of dust depletion in various environments ranging from the Milky Way and The Magellanic Clouds out to high-redshift dwarf galaxies. The depletion patterns appear surprisingly similar in all environments studied and hint at a common origin of interstellar dust grains.