



SCUOLA
NORMALE
SUPERIORE

SEMINARIO DI COSMOLOGIA

Martedì 24 settembre 2019
ore 12:00

Scuola Normale Superiore
Pisa
Aula Marie Curie

Susanna Bisogni
(*Arcetri Astrophysical Observatory*)

terrà un seminario dal titolo:

“The X-ray/ultraviolet relation in quasars. New results with the Chandra Source Catalog 2.0.”

Abstract:

The non-linear relation between X-rays and UV luminosities in quasars can be used to estimate their absolute distance. The use of quasars as standard candles opens to the exploration of the cosmological parameters space in a redshift range that has never been probed before. The amount of dispersion in the Lx-Luv relation is directly connected to the dispersion in the Hubble diagram for quasars and, therefore, to the precision in the distance estimates and in the constraints we can put on the cosmological model. This quantity has been proven to be mostly due to observational issues in measuring the two fluxes (at 2keV and 2500 Å rest-frame) rather than being intrinsic, meaning that the physical mechanism at work between accretion disc and hot corona, emitting in the two bands, must be ubiquitous. The results published so far with archival samples made use of only photometric data, reaching a dispersion of 0.24 dex. Here we present a huge step forward by using spectra provided by the newly released Chandra Source Catalog 2.0, which allow us to obtain an unprecedentedly small dispersion.