

MULTI-WAVELENGTH SURVEYS OF OBSCURED AGN

ELENI CHATZICHRISTOU

National Observatory of Athens, Kallidromiou 55, 10681, Athens, Greece
E-mail: elenichatz@tellas.gr

Several key goals require measuring the number of all AGN in the Universe, and the evolution of the ratio of obscured to unobscured AGN with redshift. This reflects the structure of AGN and thus the development in the heart of all galaxies. Hard X-rays can penetrate most obscuring dust columns to reveal the AGN that remains hidden in all other wavelengths. Mid-IR surveys probe the thermal dust emission, that is, the continuum light from the central source after it is reprocessed by dust, and this emission dominates the bolometric luminosities of dusty high-redshift galaxies. Thus, combining deep mid-IR and hard X-ray surveys can provide us with accurate demographics of AGN especially at high redshifts. Multi-wavelength surveys aim to address these science goals by exploiting the unprecedented combination of great observatories such as HST, Chandra and SIRTf to survey the distant universe to the faintest flux limits across the broadest range of wavelengths. I will present and discuss some of the results coming from multi-wavelength surveys placing particular focus on the systematic study of obscured AGN.