

## ASTROPHYSICS SEMINAR

Wednesday, 19 December 2012 at 11:00

# AGN Hard X-ray luminosity function and the Lockman Hole Deep Field

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**Abstract.** The Lockman Hole field, is the area of the sky with the lowest galactic absorption, providing ideal observing conditions for extragalactic astronomy; it is the second deepest field observed by XMM-Newton with an exposure time of  $\sim 1.3$  Ms. I will present the first public release of deep broadband multiwavelength photometry in the Lockman Hole, discussing also the computation of photometric redshifts both for normal galaxies and X-ray selected AGN. Combining the Lockman Hole with other wide (XMM serendipitous survey, COSMOS) and deep X-ray fields (CDFs, AEGIS) we computed for the first time the evolution of the 5-10 keV AGN luminosity function. I will briefly introduce the methods commonly used to compute the luminosity function and discuss a comparison of the results between the 5-10 keV and the first meta-analysis of the 2-10 keV luminosity functions available in the literature.

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### Additional Information

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The seminars are given in the ISDC "Pavillon" building  
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