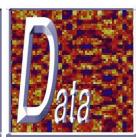




## **ASTROPHYSICS SEMINAR**









Wednesday, 21 September 2005 at 14:00

## AGN Unification and the X-ray Background

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Abstract. The simplest AGN unification paradigm, one in which the ratio of obscured to unobscured AGN is constant with redshift and luminosity, can successfully explain the multiwavelength number counts of the X-ray sources detected in the GOODS fields, that include the deepest Chandra/XMM observations. Assuming a constant ratio of obscured to unobscured AGN of 3:1, including Compton-thick sources, we were able to explain the spectral shape and normalization of the X-ray background. Based on new observations that suggest that the relative number of obscured AGN can decrease with luminosity, we introduce a luminosity dependence in our unification model. This new model can still explain the properties of sources in the GOODS fields and is consistent with the X-ray background observations. The possible dependence of the obscured to unobscured ratio with redshift and ways to test this dependence will be discussed.