The overlap and clustering between Chandra and SCUBA sources

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[Contributed talk, 15min.]

Abstract

We present results from a unique deep Chandra survey, which coincides with the largest sub-mm survey ever undertaken (that of the 8mJy SCUBA consortium). In agreement with other recent findings, we confirm that the direct overlap between these populations is small. Only 1/17 SCUBA sources are detected by Chandra, or 3/33 if the SCUBA detection limit is relaxed to 3σ. If the remaining SCUBA sources contain AGN they must either be very weak or obscured by Compton thick material. Despite this small overlap, we find evidence for strong clustering between these populations. The AGN and SCUBA sources therefore appear to trace the same large scale structure, but in general are not concurrent. Given the strong suspicion that every massive galaxy has undergone a luminous quasar phase, we suggest that this must be essentially distinct from the major episode of star formation.

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