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Chenxu Wen* (chenxu.wen@vanderbilt.edu), Department of Mathematics, 1326 Stevenson Center, Vanderbilt University, Nashville, TN 37240. *Maximal amenability and disjointness for the radial masa.*

The study of the inclusion of amenable subalgebras inside II_1 factors leads to many important notions in the theory such as regularity, singularity, solidity, etc.

Popa showed the first concrete examples of maximal amenable subalgebras inside a II_1 factor. Subsequent work on maximal amenable subalgebras has mostly revolved around a property due to Popa, called the asymptotic orthogonal property (AOP). Only recently, a new approach via the study of centralizers was developed by Boutonnet and Carderi.

We show a stronger version of AOP which implies the “disjointness property” that any distinct maximal amenable subalgebra cannot have diffuse intersection with the radial masa. This confirms partially a conjecture of Jesse Peterson. (Received April 11, 2015)