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Taylor Hines* (thines@math.purdue.edu), Department of Mathematics, Purdue University, 150 N. University Street, West Lafayette, IN 47907-2067, and **Andrew Toms**. *The radius of comparison for crossed products and mean topological dimension*. Preliminary report.

The radius of comparison of a C^* -algebra A is an invariant extending the topological (covering) dimension for noncommutative spaces. In the case that A is the crossed product of a topological dynamical system on a finite-dimensional space, several results exist which bound the radius of comparison in terms of the dimension of the underlying space. Our work is an attempt to extend results of this type to dynamical systems on infinite-dimensional spaces using the mean topological dimension. This talk summarizes recent progress by Q. Lin, N.C. Phillips, A. Toms and others towards giving the radius of comparison of a minimal system in terms of its mean dimension. We also discuss current conjectures and recent results which give evidence for the conjecture that the radius of comparison of the crossed product algebra of a minimal system is approximately half the mean dimension. (Received August 19, 2011)