962-44-921 **Robert Park*** (rrpark@west.raytheon.com) and **Leonard Richardson** (rich@math.lsu.edu).
Pompeiu Sets in Compact Heisenberg Manifolds.

A necessary and sufficient condition is presented for a set to be a Pompeiu subset of any compact homogeneous space with a finite invariant measure. The condition, which is expressed in terms of the intertwining operators of each primary summand of the quasi-regular representation, is then interpreted in the case of the compact Heisenberg manifolds. Examples are presented demonstrating that the condition to be Pompeiu in these manifolds is quite different from the corresponding condition for a torus of the same dimension. This provides a contrast with the existing comparisons between the Heisenberg group itself and Euclidean space in terms of Pompeiu sets. In addition , the closed linear span of all translates of any square integrable function on any compact homogeneous space is determined. (Received October 03, 2000)