

1035-05-1484

**Petre I Ghenciu\*** (ghenciup@uwstout.edu). *Hamiltonian cycles in subspace graphs*. Preliminary report.

In this talk we study the hamiltonicity and the uniform-hamiltonicity of the subspace graphs, and their associated bipartite graphs. In 1995 paper “The subset-subspace analogy”, Kung states the subspace version of a conjecture. The bipartite graph between the set of  $k$ -dimensional subspaces and the set of  $(n - k)$ -dimensional subspaces of a  $n$ -dimensional finite vector space over  $GF(q)$  with edge set  $\{(B, C) : B \subset C\}$  has a Hamiltonian cycle. The study of this problem led to a more general class of graphs. The main emphasis of this talk is on describing this graphs and study their hamiltonicity. Some generalizations of the results concerning the pancyclicity of the graphs are also presented. (Received September 20, 2007)