

Meeting: 999, Nashville, Tennessee, SS 7A, Special Session on Operator Theory on Function Spaces

999-47-249 **Patrick R. Ahern*** (ahern@math.wisc.edu), Department of Mathematics, Van Vleck Hall, 480 Lincoln Drive, Madison, WI 53706, and **E. H. Youssfi** (youssfi@gyptis.univ-mrs.fr), 39 Rue F-Joliet-Curie 13453, Dedex 13 Marseille, France. *Hankel operators with bounded symbol*. Preliminary report.

In the unit disc, a well known theorem of Nehari implies, among other things, that a bounded Hankel operator has a bounded symbol. In several variables the situation is more complicated. Cotlar and Sadosky have shown that in the bidisc there are bounded Hankel operators without any bounded symbol. Bakonyi and Timotin later have given an explicit example of such an operator. We show the following: in the case of the ball and the polydisc in two dimensions there are bounded Hankel operators whose symbols are conjugate holomorphic that have no bounded symbol. This answers a question of Elizabeth Strouse. (Received August 24, 2004)