Compactness of Hankel Operators and Analytic Discs in the Boundary of Pseudoconvex Domains

Sönmez Şahutoğlu
University of Michigan, Ann Arbor, MI

Abstract

Using several complex variables techniques we want to investigate the interplay between the geometry of the boundary and compactness of Hankel operators. In this talk the basic set up of the $\overline{\partial}$-Neumann problem will be introduced and the connection to Hankel operators will be mentioned. We will present some results confirming that the theory for compactness of Hankel operators is somewhat parallel to the theory of compactness of the $\overline{\partial}$-Neumann problem (at least in terms of analytic structures in the boundary). This is a work in progress joint with Željko Čučković.