Schatten class membership of Hankel Operators on the Unit Sphere

QUANLEI FANG
Department of Mathematics
SUNY-Buffalo

Thursday, February 26 at 3:30 pm
Allen 14

Abstract. Let $H_f$ be a Hankel operator on the Hardy space of the unit sphere in $\mathbb{C}^n$, $n \geq 2$. A key feature of this investigation is that we consider all possible symbol functions $f$ in the $L^2$ of the sphere. We completely determine the membership of $H_f$ in the Schatten class $C_p$. In the case $p > 2n$, $H_f \in C_p$ if and only if $H_f$ maps the constant function 1 into the Besov space $B_p$. In the case $p \leq 2n$, the membership $H_f \in C_p$ implies $H_f = 0$. This is a joint work with Jingbo Xia.

Dr. Fang is a candidate for a position in our department. There will be a reception for her in Allen 467 at 4:30 pm following her talk.