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Rubén A Martínez-Avendaño* (ruben@math.msu.edu), Department of Mathematics, Michigan State University, East Lansing, MI 48824. *Positiveness of a class of generalized Hankel operators.*

Classical Hankel operators on the Hardy space H^2 have been studied for a long time, and many interesting results are known about them. In this talk, we will introduce a class of operators, called λ -Hankel operators, as those that satisfy the operator equation $S^*X - XS = \lambda X$, where S is the forward shift on H^2 and S^* its adjoint. We prove that, for λ purely imaginary (the only case when a λ -Hankel operator may be self-adjoint), the question of positiveness of a λ -Hankel operator X is equivalent to a “generalized Hamburger moment problem”. (Received October 01, 2000)