

**ON THE MEMBERSHIP OF HANKEL OPERATORS
IN A CLASS OF LORENTZ IDEALS**

Abstract. Recall that the Lorentz ideal \mathcal{C}_p^- is the collection of operators A satisfying the condition $\|A\|_p^- = \sum_{j=1}^{\infty} j^{-(p-1)/p} s_j(A) < \infty$. Consider Hankel operators $H_f : H^2(S) \rightarrow L^2(S, d\sigma) \ominus H^2(S)$, where $H^2(S)$ is the Hardy space on the unit sphere S in \mathbf{C}^n . In this joint work with Quanlei Fang, we characterize the membership $H_f \in \mathcal{C}_p^-$, $2n < p < \infty$.