Ding, Xuanhao; Sang, Yuanqi

Summary: Suppose that \( f, u \) and \( g \) are in the Hardy space of the unit circle \( H^2 \), and \( h \) is a square integrable function on the unit circle. \( H_f, H_u, H_g \) and \( H_h \) are Hankel operators which take the Hardy space of the unit circle \( H^2 \) into the orthogonal complement of the Hardy space \( (H^2)^\perp \). We obtain the necessary and sufficient conditions for \( H_f \bar{H}_u \bar{H}_g = H_h \) and \( H_f H_u \bar{H}_g = H_h \bar{H}_u H_f \), respectively.

MSC:
47B35 Toeplitz operators, Hankel operators, Wiener-Hopf operators
30H10 Hardy spaces

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