Reproducing kernel theses and Pisier's example

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We study an abstract form of reproducing kernel theses (RKT), covering several well-known examples of RKTs. More precisely, we study the boundedness of mappings of the form

$$H^2(\mathbb{D}) \to X, f \mapsto f(T)c,$$

where T is a fixed, power-bounded operator on a Hilbert space X and $c \in X$. Particularly, we study the case of Foguel–Hankel operators T as arising in Pisier's example for the Halmos problem. This relates to previous results by Jacob-Partington and Harper for Hilbert space contractions T and Le Merdy for Ritt operators T, underlining their common feature—the bounded polynomial calculus—, despite their seemingly unrelated proof techniques.
This is joint work with Eskil Rydhe (Lund).