Products of Nevanlinna Functions with Certain Rational Functions

R. Wietsma

Let Q be a scalar Nevanlinna function and let r be a rational function with real poles and zeros, which is also real on the real axis. Then the product $\widetilde{Q} = rQ$ (with special choices of r) is considered. In particular, the operator representation of the function $\widetilde{Q}$ is connected to the operator representation of the function Q. Furthermore, the connections between the models of the functions Q and $\widetilde{Q}$ are studied, involving the $L^2(\mathrm{d}\sigma)$-models and RKS-models.