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Title: Riesz bases of reproducing kernels in Fock-type spaces

Abstract.

Let $\phi(z) = \phi(|z|)$ be a radial subharmonic function in the complex plane \mathbb{C} , $\phi(t) \rightarrow +\infty$ as $t \rightarrow +\infty$.

By a Fock-type space we mean the spaces

$$\mathcal{F}_\phi = \left\{ f \in \text{Hol}(\mathbb{C}) : \int_{\mathbb{C}} |f|^2 e^{-2\phi} dm < \infty \right\}.$$

Here m stands for the plane Lebesgue measure.

We study the problem of the existence of an unconditional basis from reproducing kernels in Fock-type spaces. We will also discuss related problems such as the Gabor expansions in $L^2(\mathbb{R})$ and expansions in exponential systems in the classical Hardy spaces.

This is joint work with Alexander Borichev (*University of Marseille, France*).