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Non-Uniform Gabor sampling and Balayage of Fourier transforms

Consider the following two problems; one about Gabor frames and the other about translates of the Poisson kernel. (1) Find a sufficient condition for a sequence of points in the time-frequency domain so that these points generate a Gabor frame in $L^2(\mathbb{R})$. (2) Let $P(t) = 1/(1 + t^2)$ be the Poisson kernel. Find a necessary and sufficient condition for a sequence of points $x[n]$, so that the sequence of functions obtained by the translates of the Poisson kernel, namely $f_n(t) = P(t - x[n])$, spans the space $L^1(\mathbb{R})$. In this talk, we provide a unified treatment to these type of problems using the theory of Balayage, which was initially developed by Beurling, in the setting of Fourier frames.