On the class of marginal distributions of a Lévy semistationary process with a gamma kernel

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We present some probabilistic properties of a Lévy semistationary process when the kernel is given by $\varphi_{\alpha,\lambda}(s) = e^{-\lambda s} s^{\alpha}$ for $\alpha > -1$ and $\lambda > 0$. We study the stationary distribution induced by this process. In particular, we show that this distribution is self-decomposable for $-1 < \alpha < 0$ and under certain conditions it can be characterized by the so-called cancellation property.

This is a joint work with Jan Pedersen.