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**E. Walter Farkas\*** ([farkas@math.ethz.ch](mailto:farkas@math.ethz.ch)), Swiss Banking Institute, Plattenstrasse 14, 8032 Zurich, Switzerland. *On option pricing under Levy copula processes - analytical and numerical aspects.*

We consider the valuation of derivative contracts on baskets of risky assets whose prices are Levy-like Feller processes of tempered stable type. The dependence among the marginals' jump structure is parametrized by a Levy copula. For marginals of regular exponential Levy type, we show that the infinitesimal generator  $A$  of the resulting Levy copula process is a pseudo-differential operator whose principal symbol is a distribution of anisotropic homogeneity. We prove that the domains of the infinitesimal generators of these processes are certain anisotropic Sobolev spaces. Using a Garding inequality, we finally discuss a wavelet-based dimension-independent tensor product discretization for the efficient numerical solution of the associated parabolic Kolmogorov equation arising in valuation of derivative contracts under possibly stopped Levy copula processes. The talk is based on some joint work with N. Reich and Ch. Schwab from ETH Zurich. (Received August 31, 2009)