Sergei Levendorskii* (levendorskii@gmail.com), , United Kingdom. Fast and accurate pricing using parabolic inverse Fourier and Laplace transforms, and method of paired contours.

Fast and accurate methods are constructed for (a) pricing European options wide classes of Lévy and affine models; (b) approximate Laplace inversion, (c) approximate calculation of the Wiener-Hopf factors for wide classes of Lévy processes with exponentially decaying Lévy densities, and (d) approximate pricing of barrier and lookback options. In all cases, we use appropriate conformal change-of-variable techniques, which allow us to apply the simplified trapezoid rule with a small number of terms (the changes of variables in the outer and inner integrals and in the formulas for the Wiener-Hopf factors must be compatible in a certain sense). (Received August 19, 2013)