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Calculating sensitivities of options using Malliavin weights II

We use Malliavin weights to calculate sensitivities for option prices. We model assets using both a variance gamma process and a normal inverse Gaussian process. We use the fact that these processes are given by Brownian subordination. We calculate the Malliavin derivative in the direction of compound Poisson approximation of the subordinator. We use explicit Malliavin weights. In the case of calls and puts we calculate benchmark sensitivities using a fast Fourier transform and using simulations we compare the performance of the Malliavin approach with that of a finite difference method with respect to this benchmark. We then price Asians options, which cannot be computed by Fourier methods.