Hyunchul Park* (hpark48@illinois.edu), 2109 W.White st Apt200, Champaign, IL 61821, and Panki Kim and Renming Song. Sharp estimates on the Green functions of perturbations of subordinate Brownian motions in bounded κ-fat open sets.

In this talk we study perturbations of a large class of subordinate Brownian motions in bounded κ-fat open sets, which include bounded John domains. Suppose that $X$ is such a subordinate Brownian motion and that $J$ is the Lévy density of $X$. The main result of this paper implies, in particular, that if $Y$ is a symmetric Lévy process with Lévy density $J_Y$ satisfying $|J_Y(x) - J(x)| \leq c \max\{|x|^{-d+\rho}, 1\}$ for some $c > 0, \rho \in (0, d)$, then for any bounded John domain $D$ the Green function $G_Y^D$ of $Y$ in $D$ is comparable to the Green function $G_D^X$ of $X$ in $D$. One of the main tools of this paper is the drift transform introduced in [?]. To apply the drift transform, we first establish a generalized 3G theorem for $X$. (Received September 19, 2012)