1106-60-1742 **Andreas Basse-O'Connor** and **Jan Rosinski*** (rosinski@math.utk.edu). *On infinitely divisible semimartingales.*

The question whether a given process with long memory and heavy tails is a semimartingale is of importance in stochastic modeling, where such processes are used as a driving random motion for stochastic differential equations. We consider this question in the context of infinitely divisible processes. We show that the problem when any such process is a semimartingale can often be reduced to a path property, when a certain associated infinitely divisible process is of finite variation. This gives the key to characterize the semimartingale property for many processes of interest, including linear fractional processes, moving averages, supOU processes, and more generally, Volterra processes driven by Lévy processes. (Received September 15, 2014)