

1133-60-133

Wei Sun* (wei.sun@concordia.ca), Department of Mathematics and Statistics, 1455 De
Maisonneuve Blvd. W., Montreal, Quebec H3G 1M8, Canada. *Hunt's hypothesis (H) and Gettoor's
conjecture.*

A Markov process X is said to satisfy Hunt's hypothesis (H) if every semi-polar set is polar. Roughly speaking, this means that if a set A cannot be immediately hit by X for any starting point, then A will never be hit by X . Which Lévy processes satisfy Hunt's hypothesis (H) is a long-standing open problem in probabilistic potential theory. In this talk, I will summarize the results that we have obtained for this problem in recent years. In particular, I will present theorems and examples on the validity of (H) for one-dimensional Lévy processes and the sum of two independent Lévy processes. This talk is based on joint papers with Zechun Hu. (Received July 20, 2017)