Department of Mathematics,
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Math 288 - Probability & Statistics

Pierre-Olivier Goffard

UC Santa Barbara

Boundary Crossing Problems with Applications to Risk Management

Abstract:

Many problems in stochastic modeling come down to study the crossing time of a certain stochastic process through a given boundary, lower or upper. Typical fields of application are in risk theory, epidemic modeling, queueing, reliability and sequential analysis. The purpose of this talk is to present a method to determine boundary crossing probabilities linked to stochastic point processes having the order statistic property. A very well-known boundary crossing result is revisited, a detailed proof is given. the same arguments may be used to derive results in trickier situations. We further discuss the practical implications of this classical.

Tianyi Zheng

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10:00 AM
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