

constrained to an orthant

Mathematics > Probability

A.B. Dieker, X.F. Gao

(Submitted on 14 Jul 2011)

(Help | Advance All papers

Download:

• PDF

Search or Article-id

Other formats

Current browse cont math.PR < prev | next >

new | recent | 1107

Change to browse b

math

References & Citatio

NASA ADS

Bookmark(what is this?)



Subjects: **Probability (math.PR)**

Cite as: arXiv:1107.2871 [math.PR] (or arXiv:1107.2871v1 [math.PR] for this version)

Sensitivity analysis for diffusion processes

This paper studies diffusion processes constrained to the positive orthant, and investigates changes in the steady-state distribution of such diffusions under infinitesimal changes in the drift. Our first

main result states that any constrained function and its drift-derivative is the unique solution to an

basic adjoint relation. We specialize the technique to the case of reflected Brownian motion.

augmented Skorohod problem. Our second main results uses this characterization to prove that the steady-state distribution of the joint processes (diffusion and its derivative processes) satisfies a

Submission history

From: A. B. Dieker [view email] [v1] Thu, 14 Jul 2011 17:11:43 GMT (63kb,D)

Which authors of this paper are endorsers?

Link back to: arXiv, form interface, contact.