



SUMMONS

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LUND UNIVERSITY

School of Economics and Management

Department of Statistics

SEMINAR

Wednesday 12 October 2011 at 13.15 in room Alfa1-1048.

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Space-time growth-interaction models

We will present a space-time growth-interaction process, which can be used to model spatial marked point patterns, where both the measurements (marks) and locations (points) develop in time. New immigrants arrive randomly in time according to a Poisson process, have uniformly distributed locations on the study region and are assigned (small) marks. In the successive small time intervals, each individual either dies naturally with some probability, or else it undergoes a deterministic incremental size change, which depends on an individual growth function and a spatial interaction function. We suggest to estimate the parameters of these models by the method of least squares. Edge effects and some alternative methods to correct for them will be discussed. The approach is applied to model growth of Scots pines in a Swedish forest stand.

Welcome!