

# Point Processes Poisson and Hawkes

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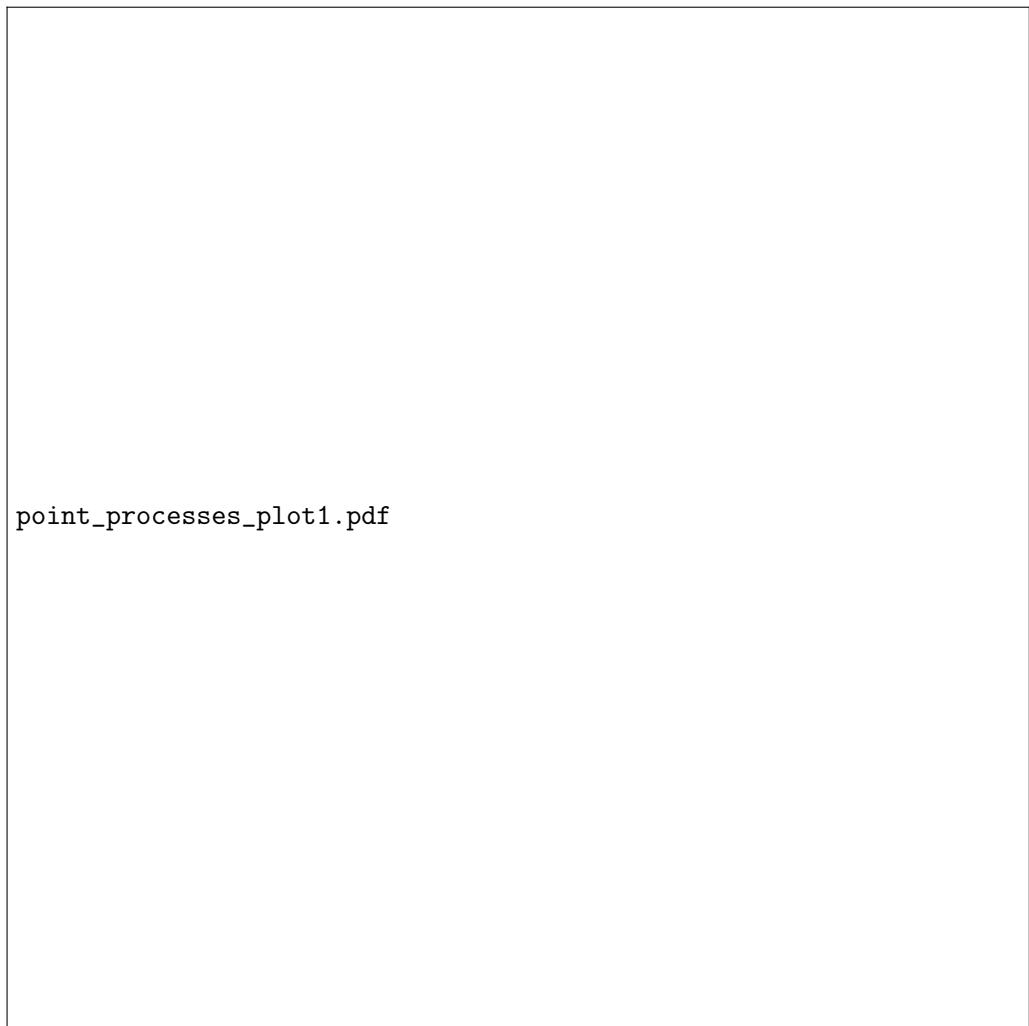
## **Abstract**

Stochastic point pattern analysis.

## 1 Introduction

This report presents computational analysis of point processes.

## 2 Mathematical Framework



point\_processes\_plot1.pdf

Figure 1: Primary analysis results.

### 3 Secondary Analysis

point\_processes\_plot2.pdf

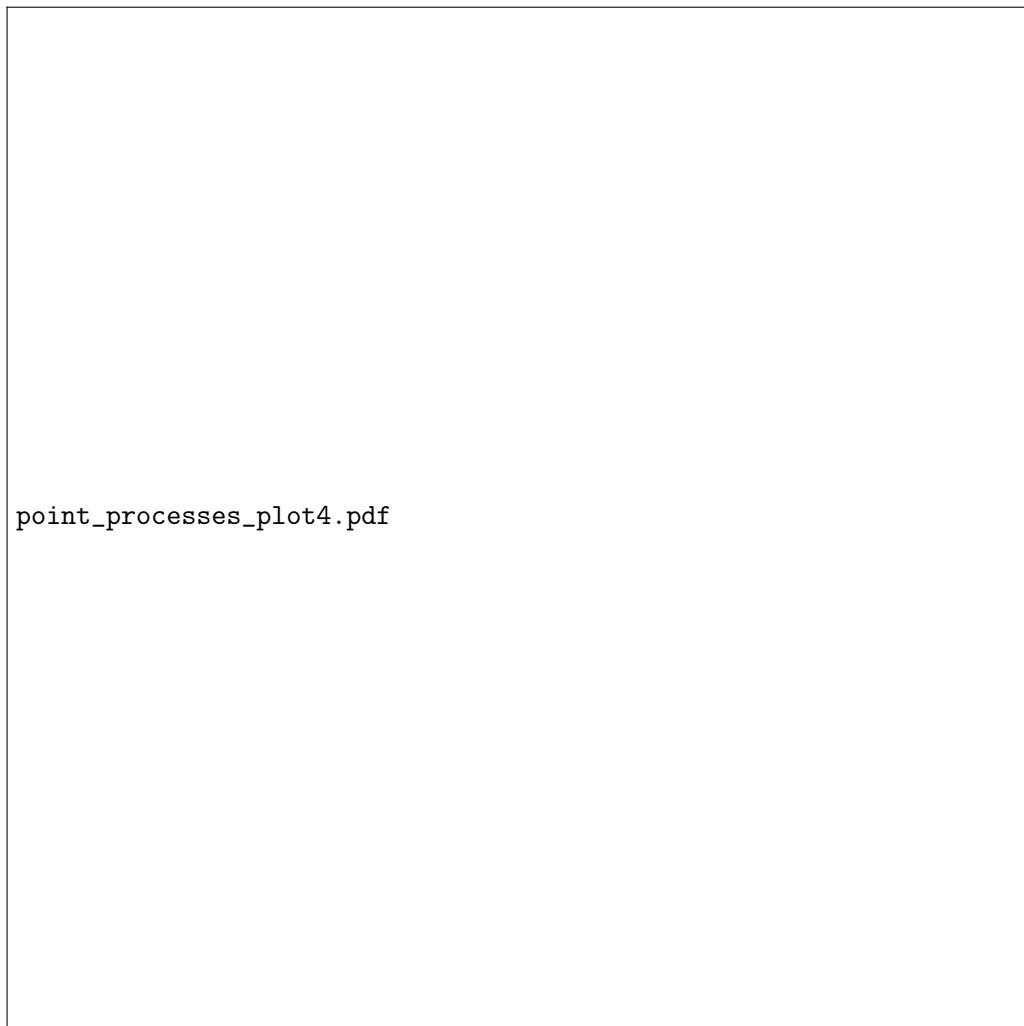
Figure 2: Secondary analysis comparison.

## 4 Parameter Study



Figure 3: Parameter sensitivity analysis.

## 5 2D Visualization



point\_processes\_plot4.pdf

Figure 4: Two-dimensional field visualization.

## 6 Distribution Analysis



point\_processes\_plot5.pdf

Figure 5: Statistical distribution analysis.

## 7 Time Series



Figure 6: Time series visualization.

## 8 Results Summary

## 9 Conclusions

This analysis demonstrates the computational approach to point processes.