

# Prequel to Hawkes Processes: An Overview of Temporal and Spatio-Temporal Point Processes and Some Simulations

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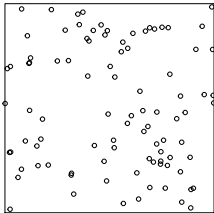
June 2021

# Background and Objectives

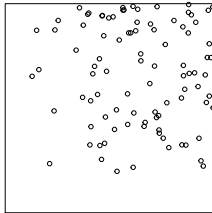
# Definitions, Properties, and Graphs

# HPP vs. NPP vs. Matern

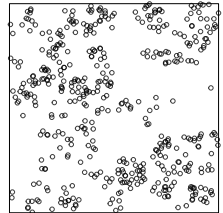
**HPP (rate = 100)**



**NPP (intensity =  $100 \times x$ )**

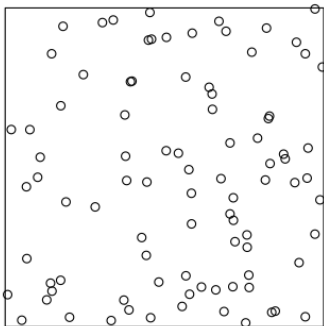


**Matern (kappa = 100,  $r = 0.05$ ,  $\mu = 5$ )**



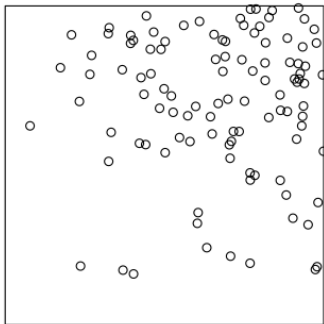
# HPP

**HPP (rate = 100)**



# NPP

**NPP (intensity =  $100 \cdot x$ )**



# Matern

**Matern ( $\kappa = 100$ ,  $r = 0.05$ ,  $\mu = 5$ )**

