Quantify Influence? Use Hawkes Processes!

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Assume K processes

Each with a rate of events (i.e., posting of a URL), this is the *background rate*

An event can cause **impulse responses**

- Increases rates of other processes for a period of time

Confidence about the number of events caused by another event on the source process (weight)

- May reveal **causal relationships**

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For Our Purposes

Hawkes model with 8 processes

One for each platform/community

Distinct model for each URL

Fit each model with Gibbs sampling

Calculate the percentage of events **created**
because of events happened in each of the other processes