

Lin_Algorithms

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Algorithm 1: Simulations of HPP

Input λ, t_{max}

1. Initialize t, t_{vector}
 2. **while** ($t \leq t_{max}$)
 3. Generate $u \sim U(0, 1)$
 4. Set $t_{current} = t + w$ where $w \sim \exp(\lambda^* = \lambda)$
 5. **if** ($t_{current} \leq t_{max}$)
 6. | Add $t_{vector} = c(t_{vector}, t_{current})$
 7. **else**
 8. | **return** $\{t_k\}_{k=0,1,\dots}$
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Algorithm 2: Simulations of NPP via Thinning Algorithm (May skip)

- 1.
 - 2.
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Algorithm 3: Simulations of Hawkes Process via Thinning Algorithm

- 1.
 - 2.
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