Lecture on July 24th, 2018
Distributions Associated with Poisson Process

1 Distributions Associated with Poisson Process (See Chap 5.3)

- Waiting time $W_n \sim$ Gamma(n, λ)
- Sojourn time S_n's are independent and follows Exp(λ).
- $X(u)|X(t) = n \sim$Binomial$(n, \frac{u}{t})$, where $X(t)$ is a Poisson Process with rate λ.

2 Uniform Distributions and Poisson Process (See Chap 5.4)

- Conditioned on a fixed number of events, the locations of those events in a Poisson process are uniformly distributed.