Lecture on July 29th, 2019
Pure Birth Process and Pure Death Process

1 Pure Birth Process (See Chap 6.1)

- Definition of Poisson process in terms of continuous time Markov process.
- Definition of pure birth process in terms of continuous time Markov process.
- The differential equations $P_n(t) = \mathbb{P}(X(t) = n|X(0) = 0)$ satisfies.
- Sojourn time and birth time for pure birth process.
- Example: Yule process.

2 Pure Death Process (See Chap 6.2)

- Definition of pure death process in terms of continuous time Markov process.
- The differential equations $P_n(t) = \mathbb{P}(X(t) = n|X(0) = N)$ satisfies.
- Sojourn time for pure death process.