# Lecture notes, Oct 6th, 2020

PS1, Q2

Markov matrix:

$$(\tilde{S}_t, \tilde{I}_t, \tilde{R}_t)\, \underline{P_t} = \begin{pmatrix} 1-\beta\cdot\tilde{I}_t & \beta\cdot\tilde{I}_t & 0 \\ 0 & 1-\nu & \nu \\ 0 & 0 & 1 \end{pmatrix}$$

$$X_t = (\tilde{S}_t, \tilde{I}_t, \tilde{R}_t) \qquad X_{t+1} = X_t \cdot P_t$$