Traceplots for SIR model fit via PMMH w/tau leaping with negative binomial emissions log – posterior -75 **-**-800.0035 -0.00300.0025 0.0020 0.7 0.6 -0.5 -Έ 0.4 -0.3 -1.0 0.9 -0.8 -Chain Р 0.7 -0.6 0.5 4 -3 -0 2 - $\Pr(X_j(t_i) = S)$ 0.99 -0.98 0.97 0.012  $\Pr\bigl(X_j\bigl(t_1\bigr) = I\bigr)$ 0.009 0.0060.003 0.000  $\Pr\bigl(X_j\bigl(t_1\bigr)=R\bigr)$ 0.02 0.01 40000 10000 20000 30000 50000 0 Iteration