Analysis (contd.)

- Continuous time process
- Then

$$\frac{dx}{dt} = -\beta xy \qquad \text{(why?)}$$

with solution:

$$x = \frac{n(n+1)}{n + e^{\beta(n+1)t}}, \, y = \frac{(n+1)}{1 + ne^{-\beta(n+1)t}}$$

(can you derive it?)