

AM108 Final

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1 Our Equations

$$\dot{n}_{a1} = \alpha \cdot n_{a1} \cdot n_{a2}$$

$$\dot{n}_{a2} = -\alpha \cdot n_{a1} \cdot n_{a2} - r \cdot n_{a2} \cdot n_{ab} - \beta \cdot n_{a2} \cdot n_{b2}$$

$$\dot{n}_{ab} = r \cdot n_{a2} \cdot n_{ab} + s \cdot n_{b2} \cdot n_{ab} + n_{a2} \cdot n_{b2}$$

$$\dot{n}_{b2} = -\gamma \cdot n_{b1} \cdot n_{b2} - s \cdot n_{b2} \cdot n_{ab} - (1 - \beta) \cdot n_{a2} \cdot n_{b2}$$

$$\dot{n}_{b1} = \gamma \cdot n_{b1} \cdot n_{b2}$$

where $\beta = \frac{n_{b2}}{n_{b2} + n_{a1}}$