The limits of fast and slow symmetric dispersal in single-species discrete diffusion system
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The theoretical applicandae of the system \( \Gamma \), whose existence is shown in Proposition 2.2, is denoted by \( E'(\beta) = (x_i' - 1, ... , x_n' - 1) \)-dimensional and the total equilibrium population by:
\[
X_i(1) = x_i(1) + v^T x_i(0),
\]
where \( x_i(1) \) is the limiting value of the population in each patch. In the case of perfect mixing, i.e. in the limit \( n \to \infty \), the total population follows a logistic law with a carrying capacity which in general is different from the sum of the patch carrying capacities.

\[
\frac{d x_i}{d t} = r_i x_i \left( 1 - \frac{x_i}{K_i} \right) + \sum_{j \neq i} \gamma_{ij} (x_j - x_i), \quad i = 1, \ldots, n.
\]

In all of this work, the GAS equilibrium of the system \( \Gamma \), whose existence is shown in Proposition 2.2, is denoted by \( E'(\beta) = (x_i' - 1, ... , x_n' - 1) \)-dimensional and the total equilibrium population by:
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