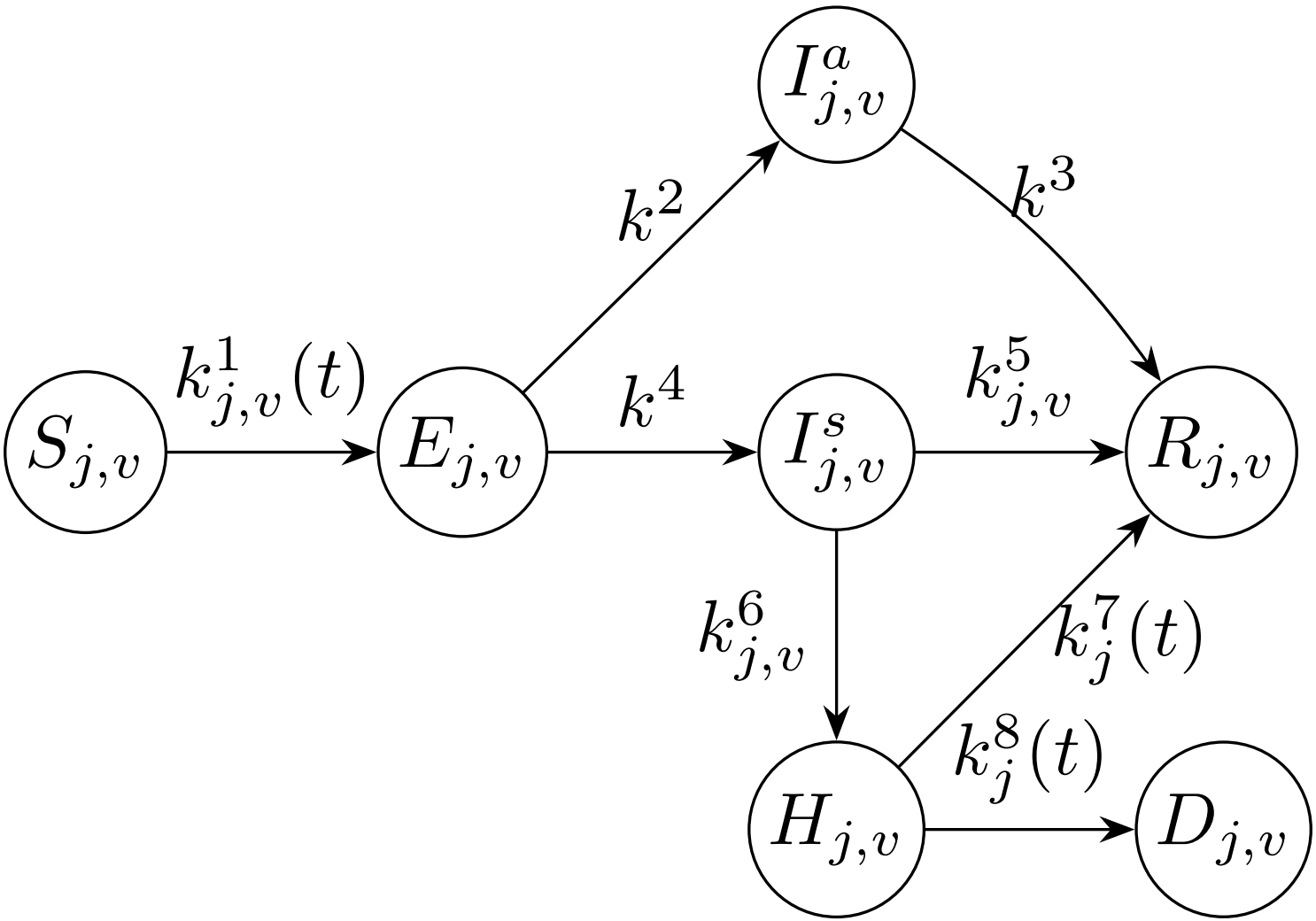

$j \in \{1, ..., m_J\}; v \in \{0, 1, 2\}$