INPUT: Parameter values, constant connection \( \kappa \)

CALCULATE: Nullcline intersection

INPUT: Size of stimulus

INPUT: Connection probability \( (p) \)

CREATE: Connectivity matrix with probability \( p \).

INPUT: Size of stimulus

INCREMENT connection probability

INCREMENT size of stimulus

COLLECT: Resting membrane potential values from mouse myometrium tissue

FIT: Normal distribution to resting membrane potential data

SELECT: Random value \( v_{i,j} \) for each cell from resting membrane potential distribution

MULTIPLY: Parameters \( \gamma \) and \( w_{0} \) by \( v_{i,j} \)

SOLVE: Coupled FitzHugh-Nagumo equations (closed boundary)

What proportion of cells are excited?

If fewer than 100 repeats

If 100 repeats

OUTPUT: Proportion of cells excited (100 repetitions)