INPUT: Parameter values, constant stimulus

CALCULATE: Nullcline intersection

TABULATE: \( \frac{1}{l} \) distance of each cell from the stimulated cell

INPUT: Connection probability \( (p) \)

CREATE: Connectivity matrix. Each connection exists with probability \( p \) and drawn from uniform distribution between 0.5 and 10

If 100 repeats

OUTPUT: Correlation (100 repetitions)

If fewer than 100 repeats

Increment connection probability

SOLVE: Coupled FitzHugh-Nagumo equations (closed boundary)

Are more than 90% of cells excited?

Yes

Are all couplings zero?

No

CALCULATE: Correlation function (Equation 2.12)

If fewer than 100 repeats

Increment connection probability

If 100 repeats

OUTPUT: Correlation (100 repetitions)