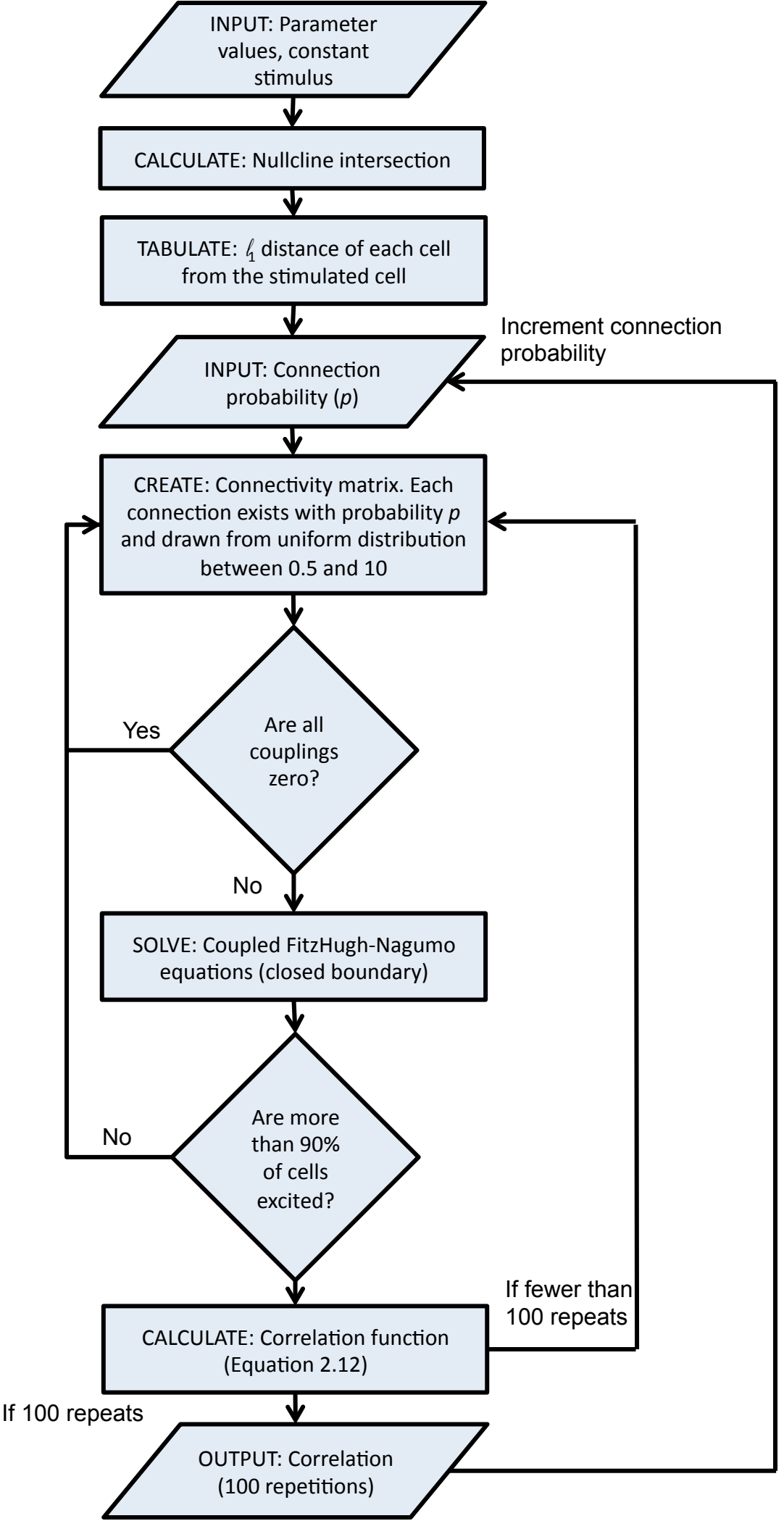
INPUT: Parameter values, constant stimulus
CALCULATE: Nullcline intersection
TABULATE: $\ell_1$ distance of each cell from the stimulated cell
Increment connection probability
INPUT: Connection probability ($p$)
CREATE: Connectivity matrix. Each connection exists with probability $p$ and drawn from uniform distribution between 0.5 and 10
Yes
Are all couplings zero?
No
SOLVE: Coupled FitzHugh-Nagumo equations (closed boundary)
No
Are more than 90% of cells excited?
If fewer than 100 repeats
CALCULATE: Correlation function (Equation 2.12)
If 100 repeats
OUTPUT: Correlation (100 repetitions)