Quiz 4.6: Threshold in a 2D Model

Threshold in a 2-dimensional neuron model with saddle-node bifurcation

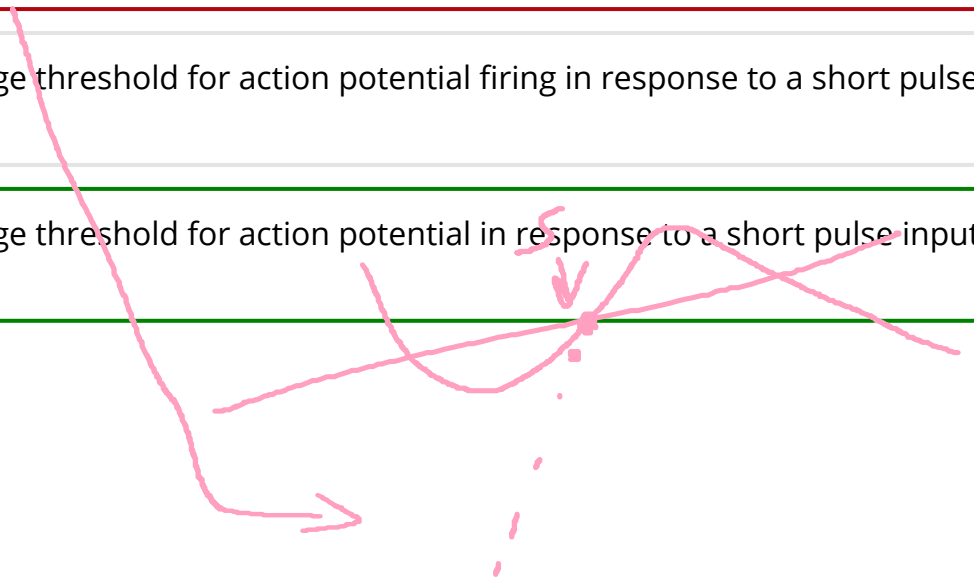
0 points possible (ungraded)

- [ ] the voltage threshold for repetitive firing is always the same as the voltage threshold for pulse input
- [ ] in the regime below the saddle-node bifurcation, the voltage threshold for repetitive firing is given by the stable manifold of the saddle
- [x] in the regime below the saddle-node bifurcation, the voltage threshold for repetitive firing is given by the middle branch of the u-nullcline
- [ ] in the regime below the saddle-node bifurcation, the voltage threshold for action potential firing in response to a short pulse input is given by the middle branch of the u-nullcline
- [x] in the regime below the saddle-node bifurcation, the voltage threshold for action potential in response to a short pulse input is given by the stable manifold of the saddle point ✔

✖

Submit You have used 1 of 1 attempt

不是这个，是一条可以直达鞍点的线

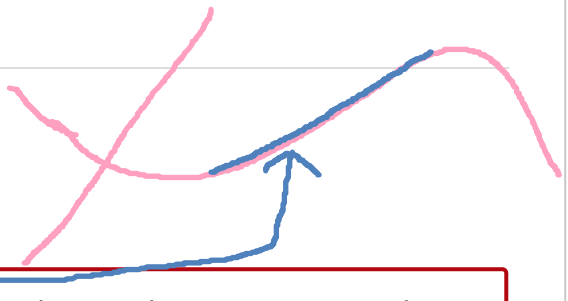


Answers are displayed within the problem

Threshold in a 2-dimensional neuron model with subcrtitical Hopf bifurcation

0 points possible (ungraded)

这里本来是不存在
但是在w变化特别小的时候，中间的这个就是阈限



- [x] in the regime below the bifurcation, the voltage threshold for action potential firing in response to a short pulse input is given by the stable manifold of the saddle point
- [ ] in the regime below the bifurcation, the voltage threshold for action potential in response to a short pulse input exists only if $\tau_w \gg \tau_u$ ✔

✖

Submit You have used 1 of 1 attempt

Answers are displayed within the problem

Discussion

Topic: Week 4 / Quiz 4.6: Threshold in a 2D Model

Show Discussion