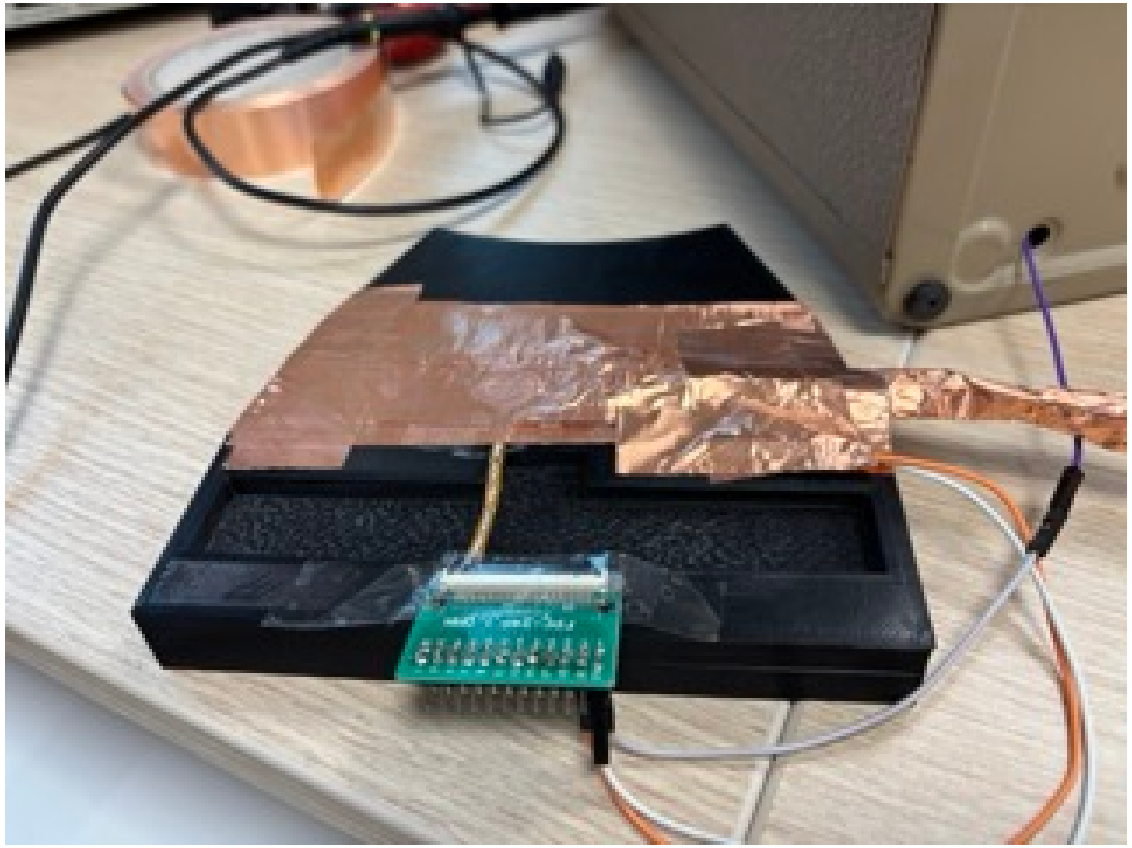
Monday Meeting

24.11.25 Meeting

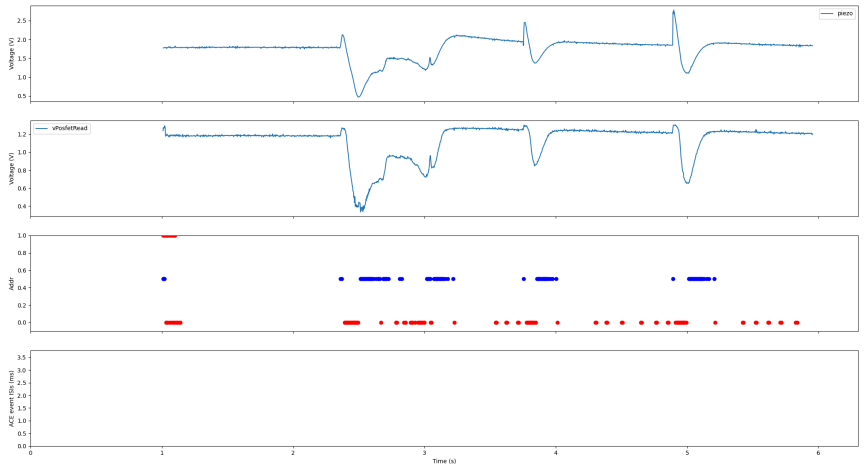
Progress this past week

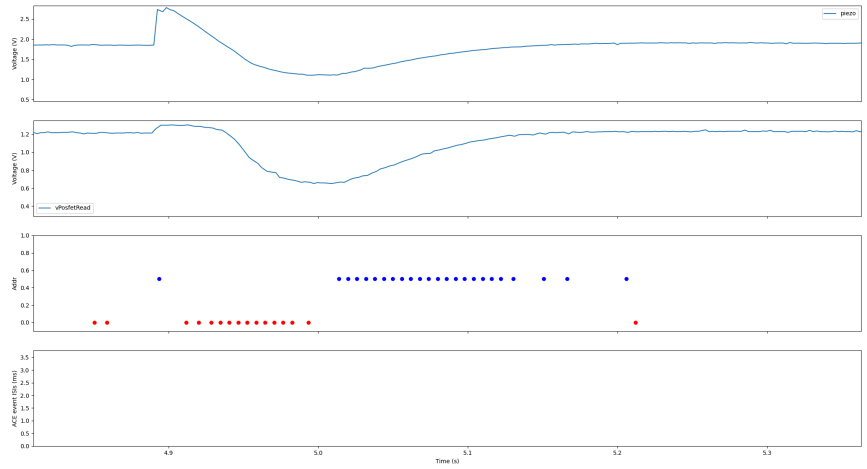
- Sensor setup (Piezoelectric + Capacitive):



Progress this past week

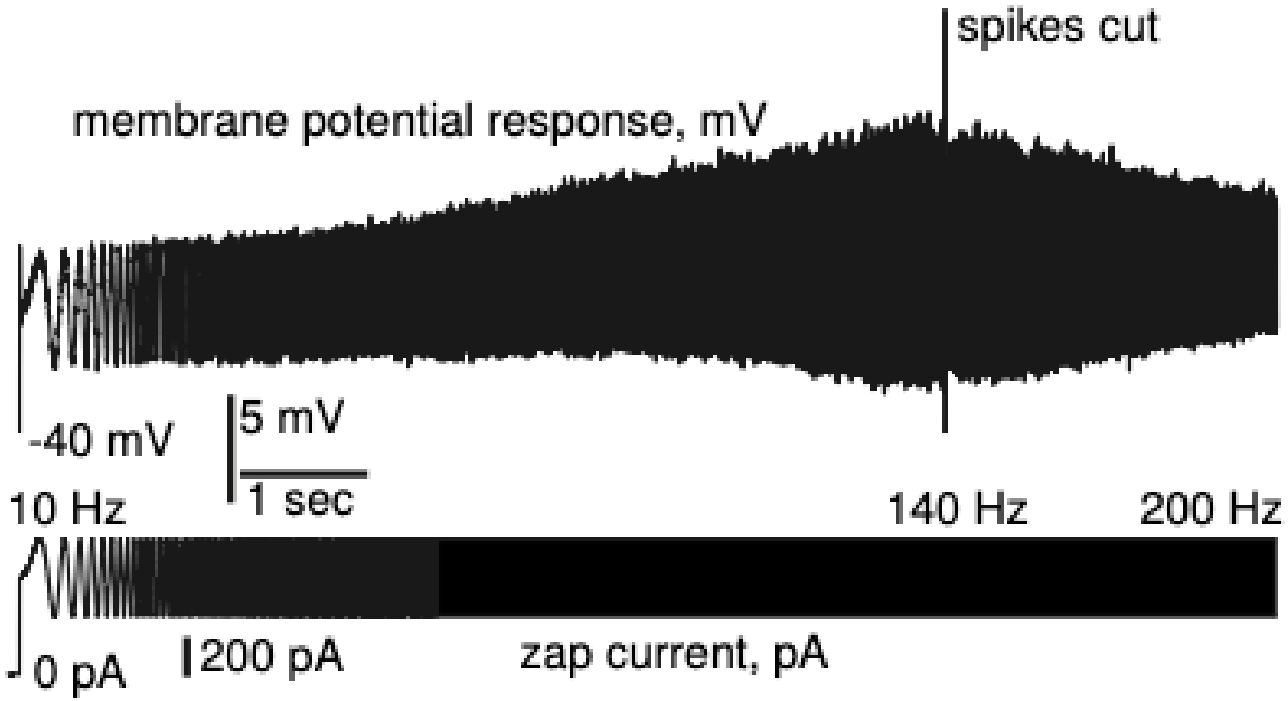
- Recordings with old chip:

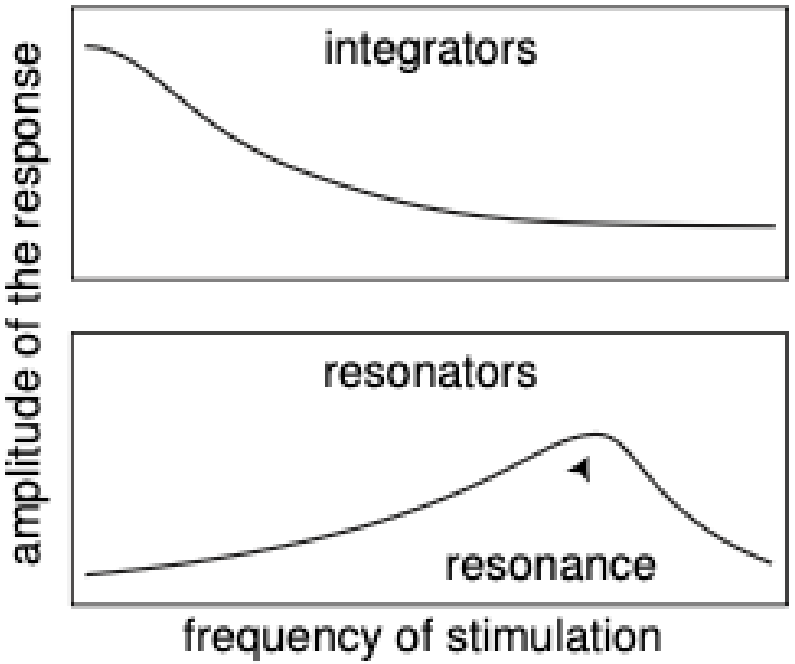




Progress this past week

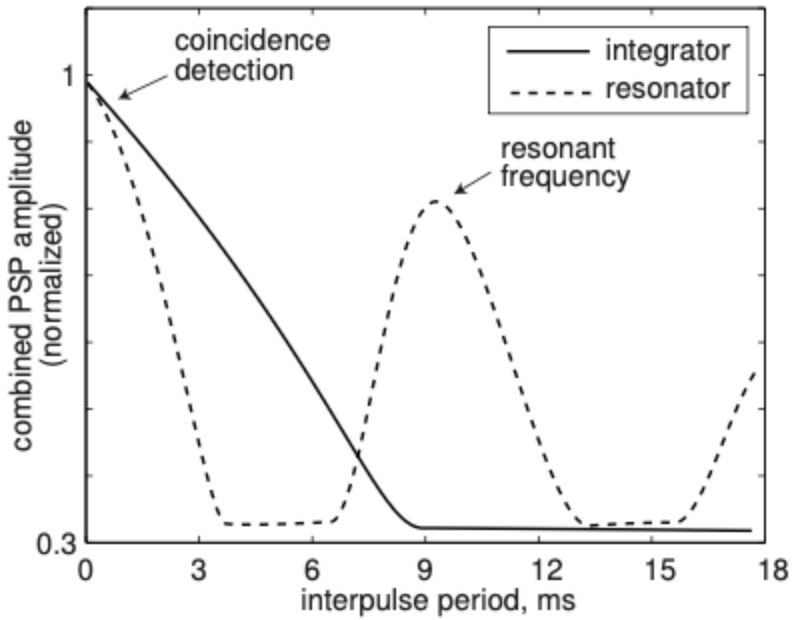
- Started reading about type III excitability and resonator neurons.
- Resonator neurons act as band-pass filters for periodic signals.

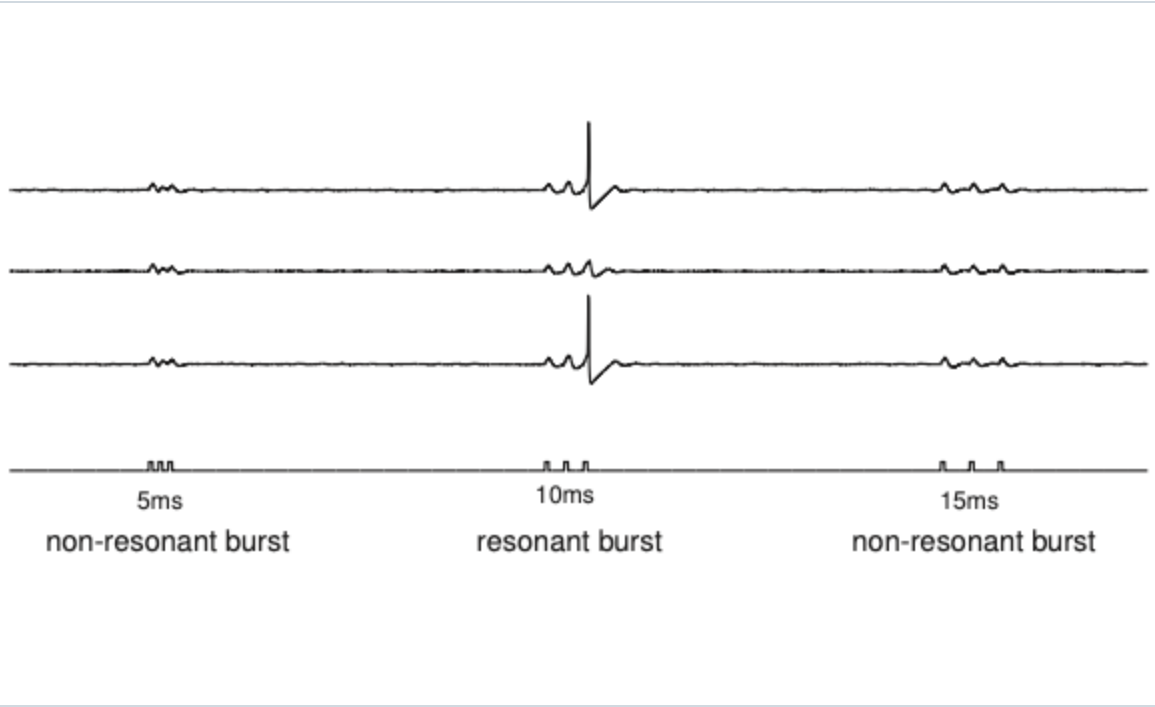




Progress this past week

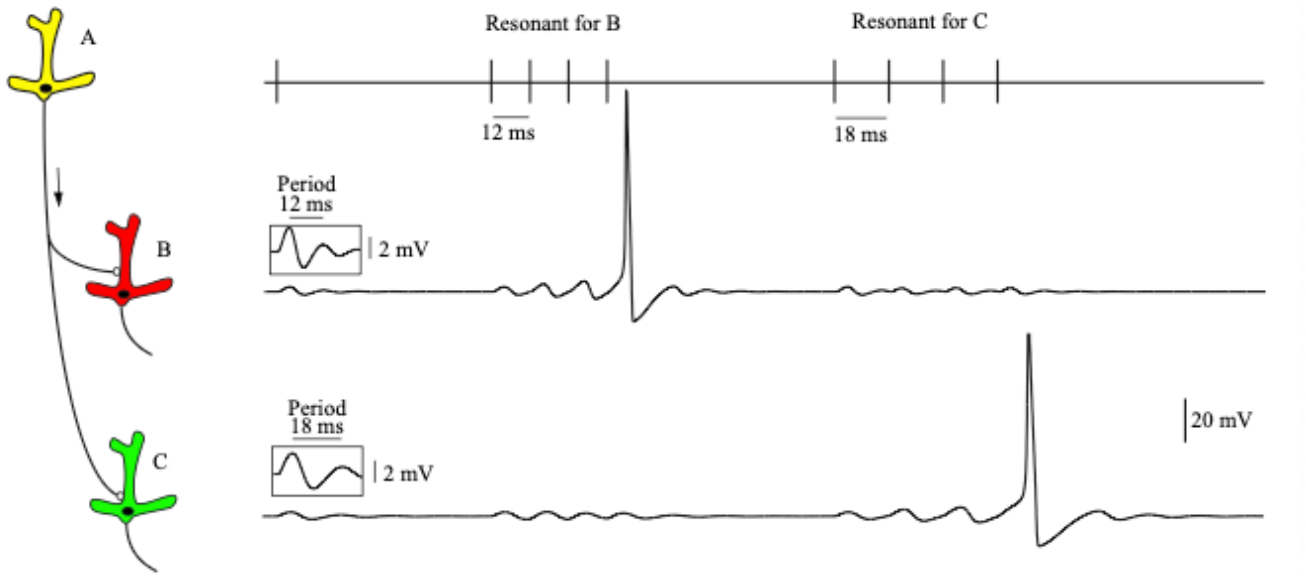
- Resonator neurons act as coincidence detectors at a preferred frequency of input spike trains.





Progress this past week

- In a network of resonator neurons, selective communication can be achieved without changing synaptic connections efficacy.

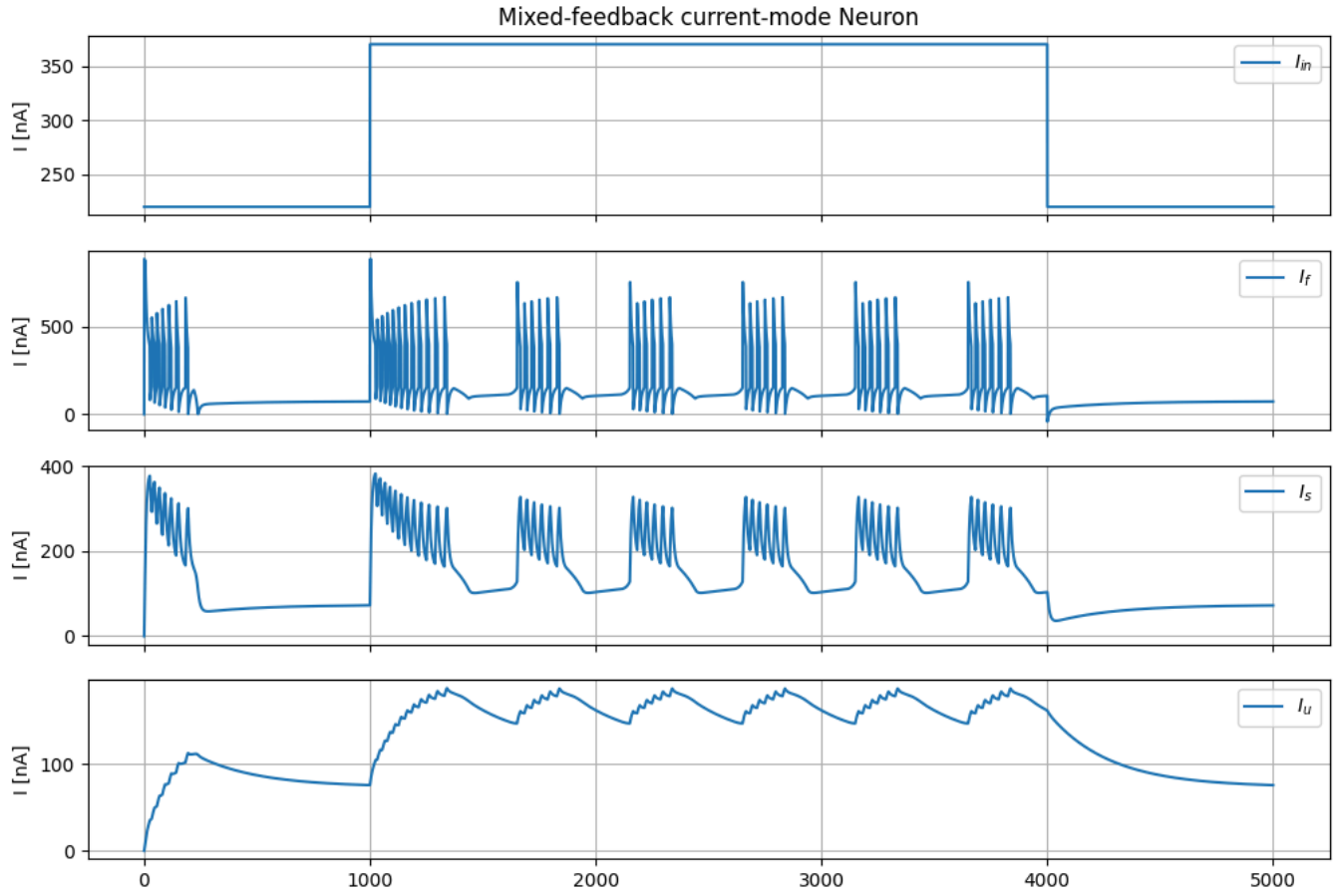


Progress this past week

- Started reading Izhikevich "Dynamical Systems" book to understand the theory behind type III excitability.

Progress this past week

- Implemented Loris' model on Brian2 (with simplified sigmoids).



TO-DO List

- Try implementing a type III excitability with Loris neuron model.
- Dive into phase plane analysis of resonator neurons.
- Continue with sensor characterization for ATIS paper.