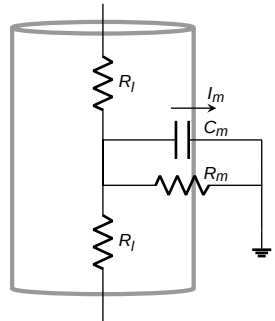


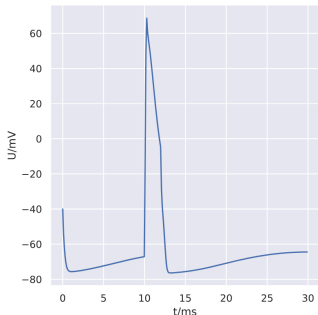


Fast, portable GPU library  
for Networks of detailed  
neuron models  
Scales to full Juwels Booster  
Friendly Python interface  
over C++ core  
Supports NeuroML2 and  
SONATA  
Co-Simulation interface to  
TVB and NEST



# Getting started v0.10

```
# isolate
python -menvv arb
source arb/bin/activate
# install
pip install arbor
# test
python -c \
    'import arbor as A; print(A.config())'
```



```
import arbor as A
from arbor import units as U
# Define labels and cell
lbl = A.label_dict().add_swc_tags()
ctr = '(location 0 0.5)'
dec = (A.decor()
    # Set initial membrane potential
    .set_property(Vm=-55 * U.mV)
    # Assign mechanisms to soma and dendrite
    .paint("soma", A.density("hh"))
    .paint("dend", A.density("pas"))
    # Attach stimulus and spike detector
    .place(ctr, A.iclamp(tstart=10*U.ms,
        ↳ duration=1*U.ms, current=5*U.nA), "ic")
    .place(ctr, A.threshold_detector(-10*U.mV),
        ↳ "det"))
# Load morphology data
mrf = A.load_swc_arbor("cell.swc")
# Make and run a single cell model
sim = A.single_cell_model(mrf, dec, lbl)
sim.run(tfinal=30 * U.ms, dt=0.0025 * U.ms)
```