

Slide layout gallery

A worked example of every demolab slide layout.

Demolab · SLIDES.md D11

Bullets

- **Bold the load-bearing phrase** so the eye lands on it first.
- Two lines per bullet, maximum — past that it's prose, not a slide.
- Five bullets is the ceiling; split the slide before a sixth.
- Nested points are fine **once**, for a short aside.
- The last bullet is the **so what** — say what it means.

Two-column

What a tool does

- Holds reusable computation.
- Writes `numbers.json` + data.
- Stays language-agnostic.

What a tool does not

- Render plots.
- Import a runner.
- Hard-code a result.

Parallel sides, one takeaway: tools compute, runners narrate.

Three-column

Tools

Reusable computation;
emit data, not plots.

Experiments

Runners: call the tools,
render the figures.

Writings

One `.typ` per entry;
reads the run.

Three parallel items — four wants a table.

Code panel

```
def cmd_lif(args):  
    v, spikes = simulate(args.current, args.tau_m)  
    write_output(run_dir,  
                 {"firing_rate_hz": rate(spikes)},  
                 manifest={"headline_metrics": ["firing_rate_hz"]})
```

Equation + terms

$$\tau_m \frac{dV}{dt} = -(V - V_{\text{rest}}) + R_m I_{\text{ext}}(t)$$

where:

- V — membrane potential (mV)
- τ_m — membrane time constant (ms)
- V_{rest} — resting potential (mV)
- R_m — membrane resistance ($\text{M}\Omega$)
- $I_{\text{ext}}(t)$ — external input current (nA); the space keeps (t) out of the subscript (D10)

Quote

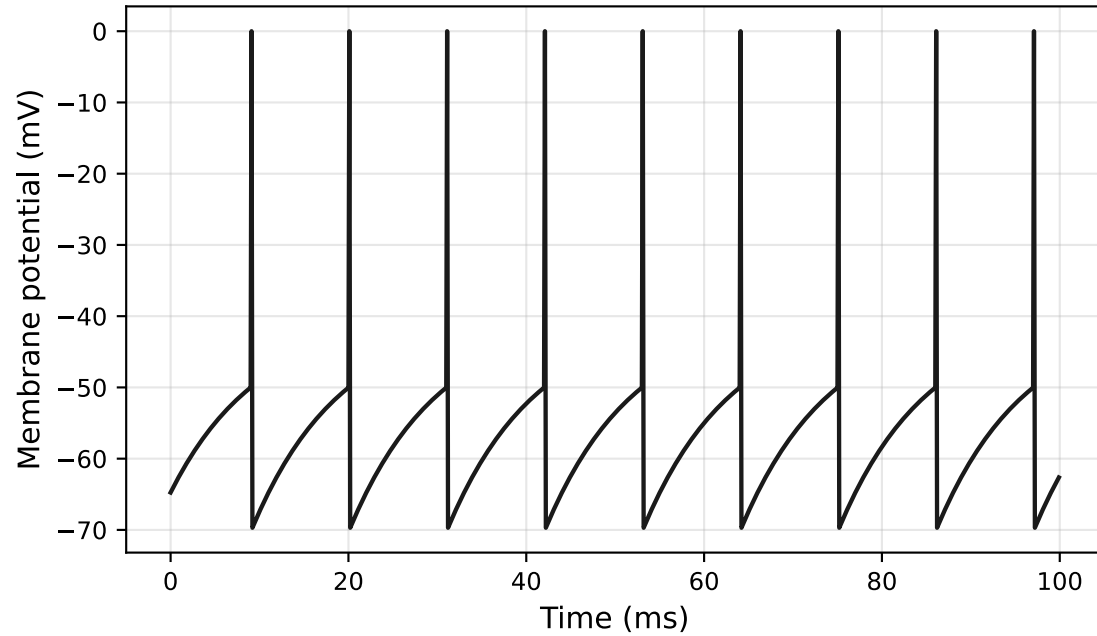
“An article about computational science is not the scholarship itself; it is merely advertising of it. The actual scholarship is the complete code and data that generated the figures.”

— Buckheit & Donoho, 1995

PART TWO

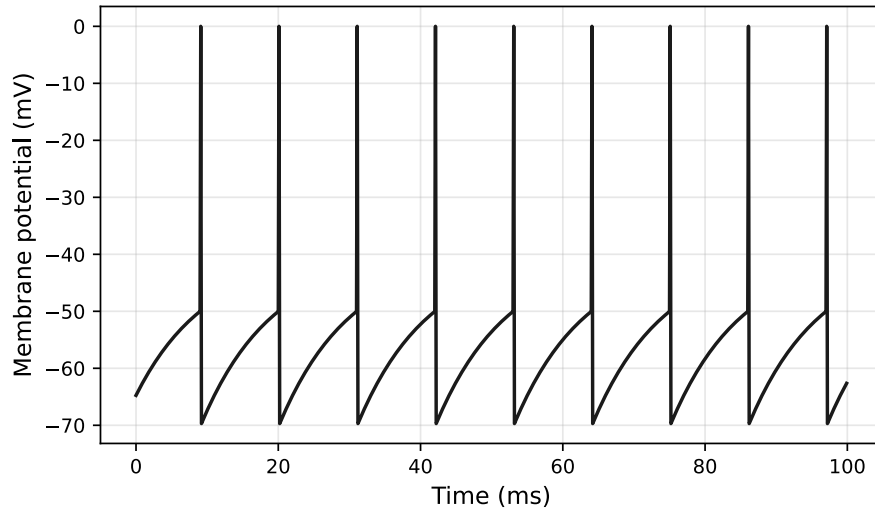
Figures

Centered figure



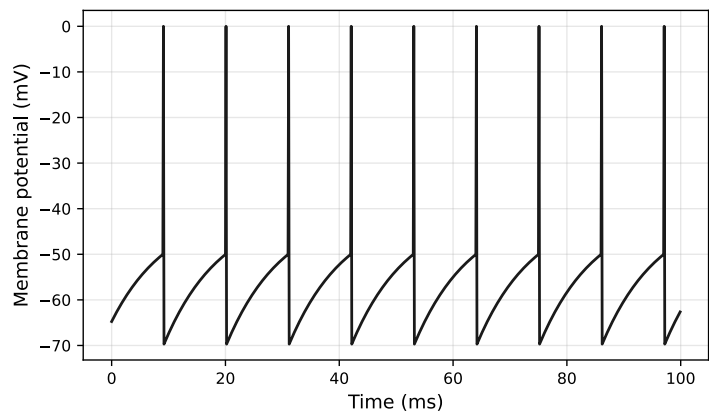
Membrane potential of a single LIF neuron under tonic input; it charges and resets at threshold, firing at 90 Hz.

Figure + bullets

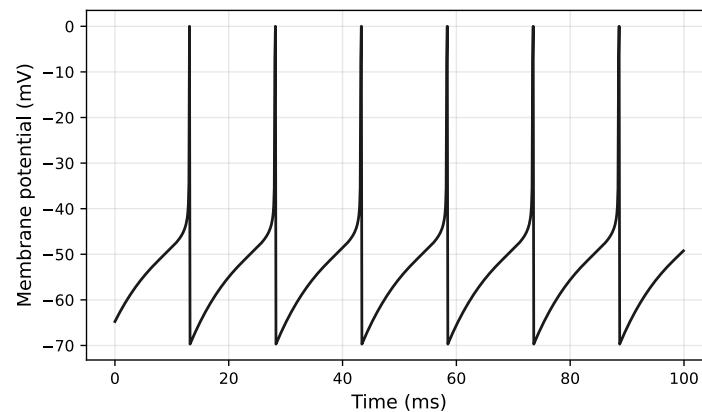


- Each sweep is the membrane charging through its RC constant.
- Every vertical drop is a **reset** after a spike.
- **So what:** constant drive gives a fixed rate, 90 Hz.

Figure pair



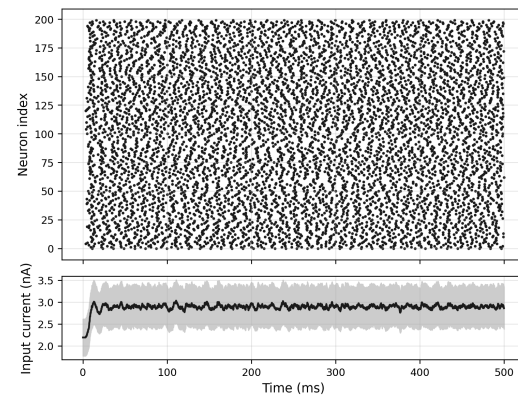
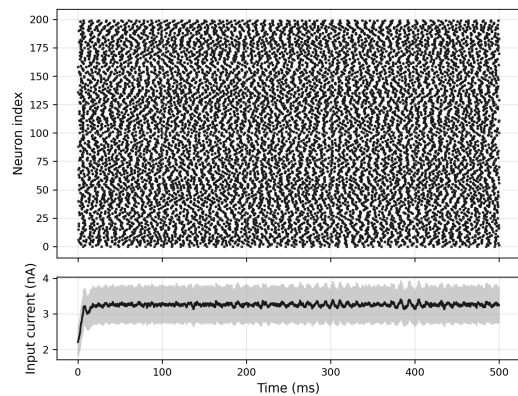
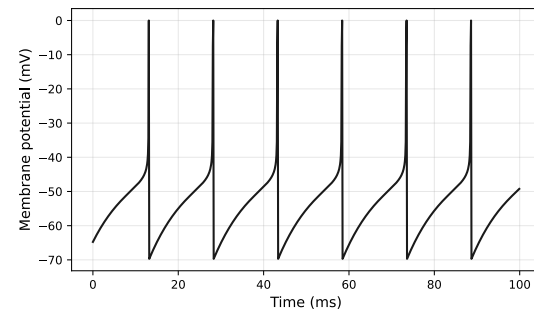
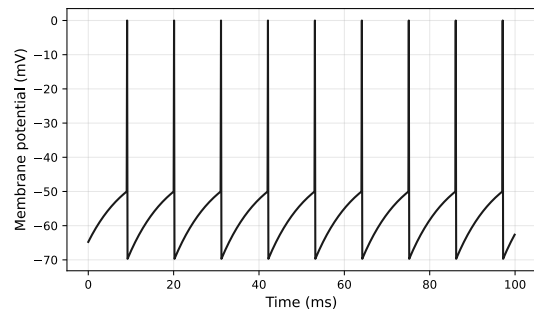
(a) LIF: linear integrate-and-fire.



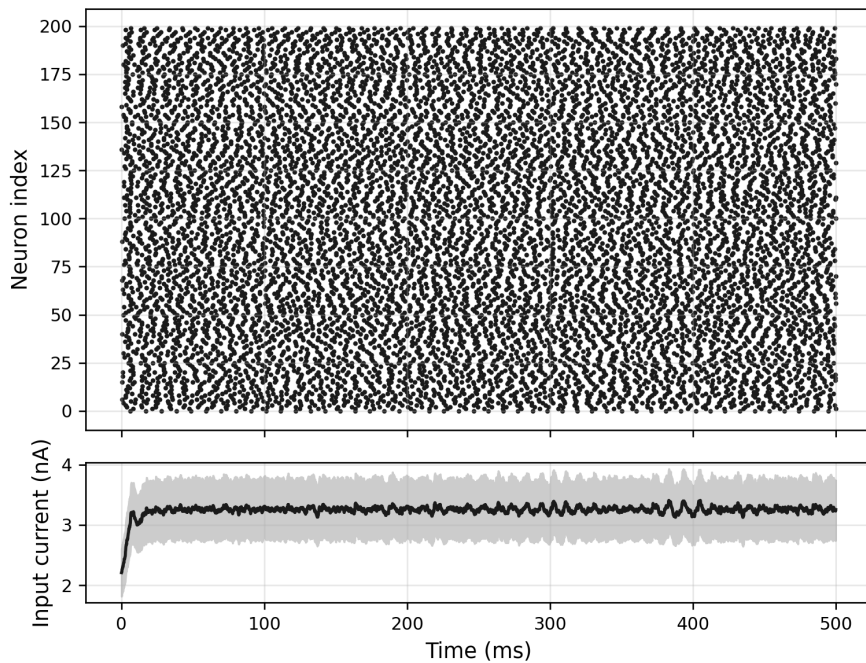
(b) EIF: exponential spike onset.

Same drive, sharper threshold: the EIF spike initiates faster.

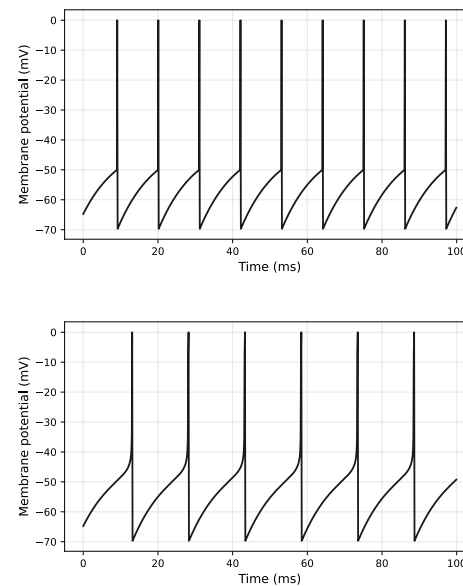
Figure grid (2×2)



Hero + stack

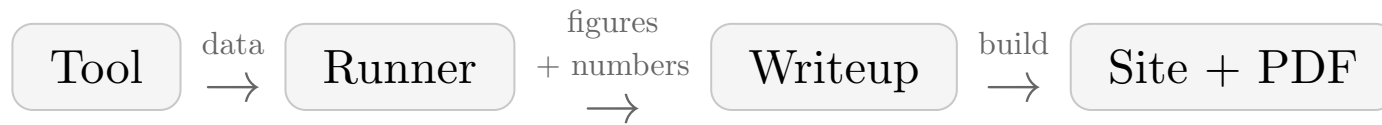


The network sustains irregular firing — the result being argued.



Single-cell traces as supporting evidence.

Diagram



Boxes and arrows in Typst — no image asset needed.

Table

Parameter	Value
Input current	2.5 nA
Membrane time constant τ_m	10 ms
Threshold V_{th}	−50 mV
Firing rate	90 Hz

Every value read from `numbers.json`, so the slide can't drift from the run.

Big number

90 Hz

single-neuron firing rate under tonic input — read from the run

One layout per slide.

Title, plus bullets or one visual.

Closer

demolab-engine/guides/SLIDES.md

- Copy a layout from this gallery; don't re-derive it.
- Check the page count after every edit (D9) — overflow paginates silently.
- Numbers and figures come from the run, never the keyboard.

Every layout, one demolab look.