SBI Toolbox: Idea: recap

Bayesian approach to parameter estimation

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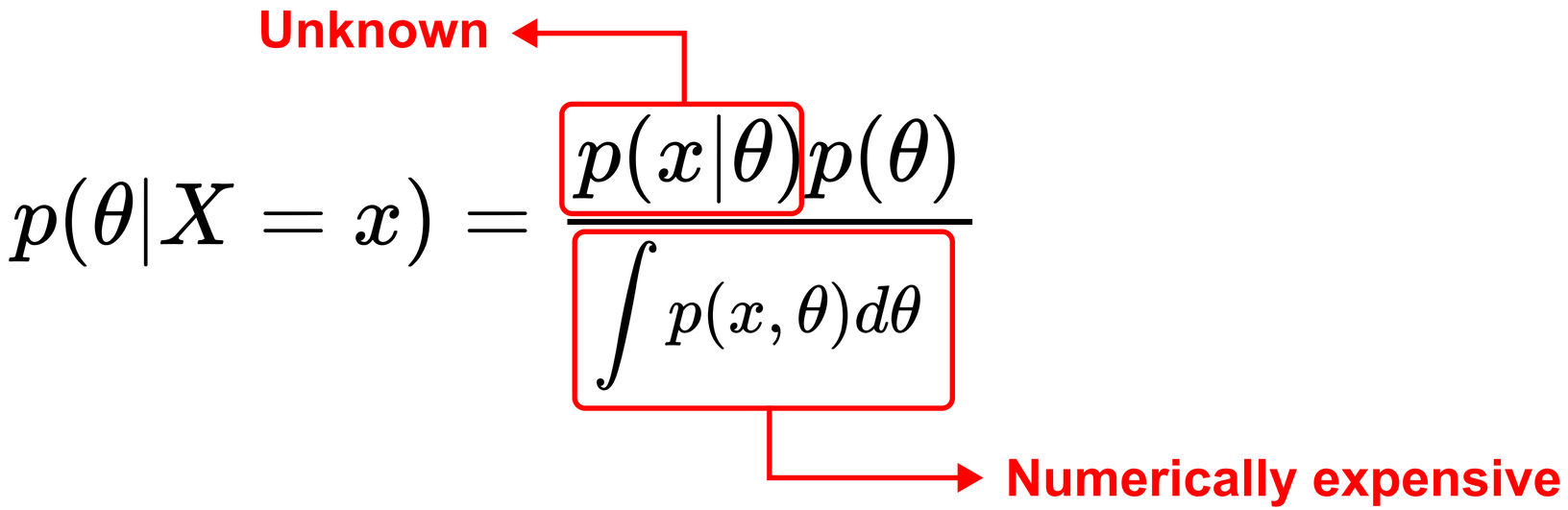
Bayesian approach to parameter estimation

$$p(\theta|X=x) = \frac{p(x|\theta)p(\theta)}{\int p(x,\theta)d\theta}$$

Numerically expensive

SBI Toolbox: Idea: recap

“Likelihood-free” approach to parameter estimation



SBI Toolbox: Idea: recap

“Likelihood-free” approach to parameter estimation

Unknown

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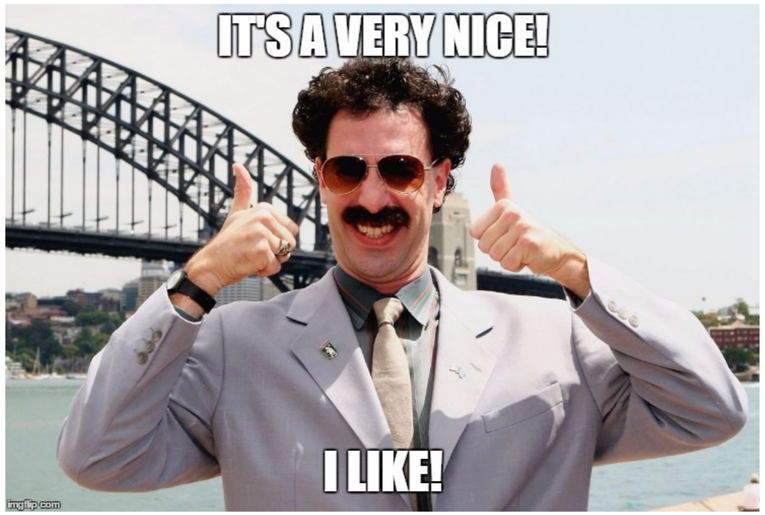
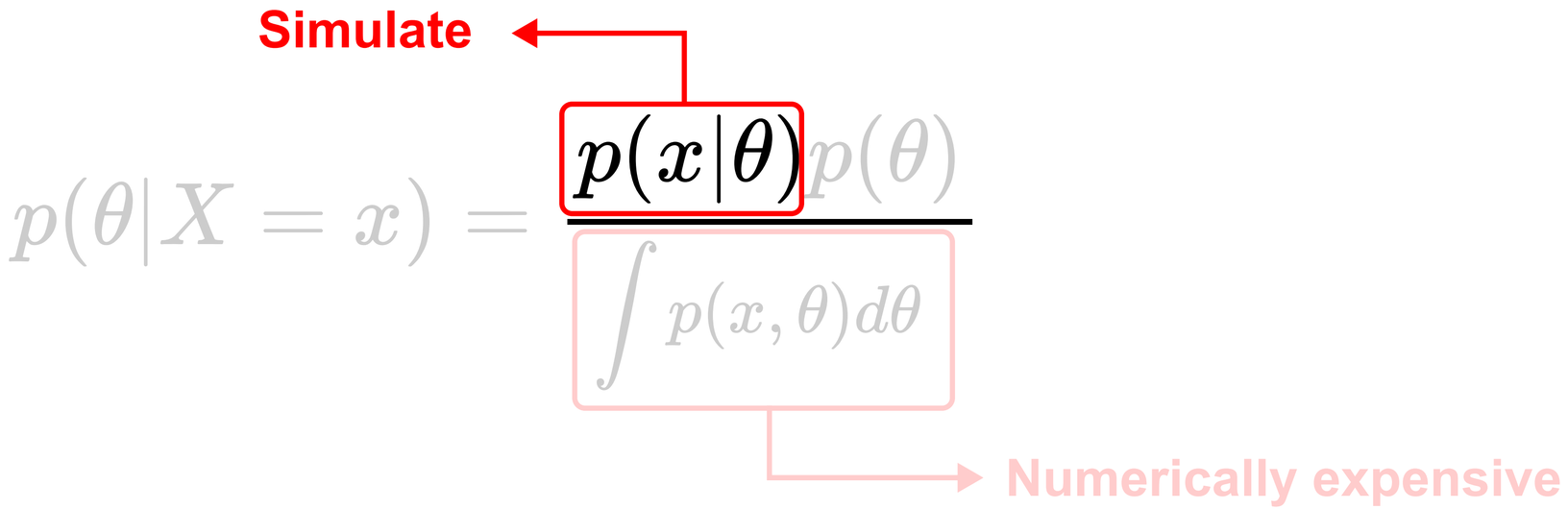
Numerically expensive



SBI Toolbox: Idea: recap

"Simulation-based" approach to parameter estimation

(redefined)



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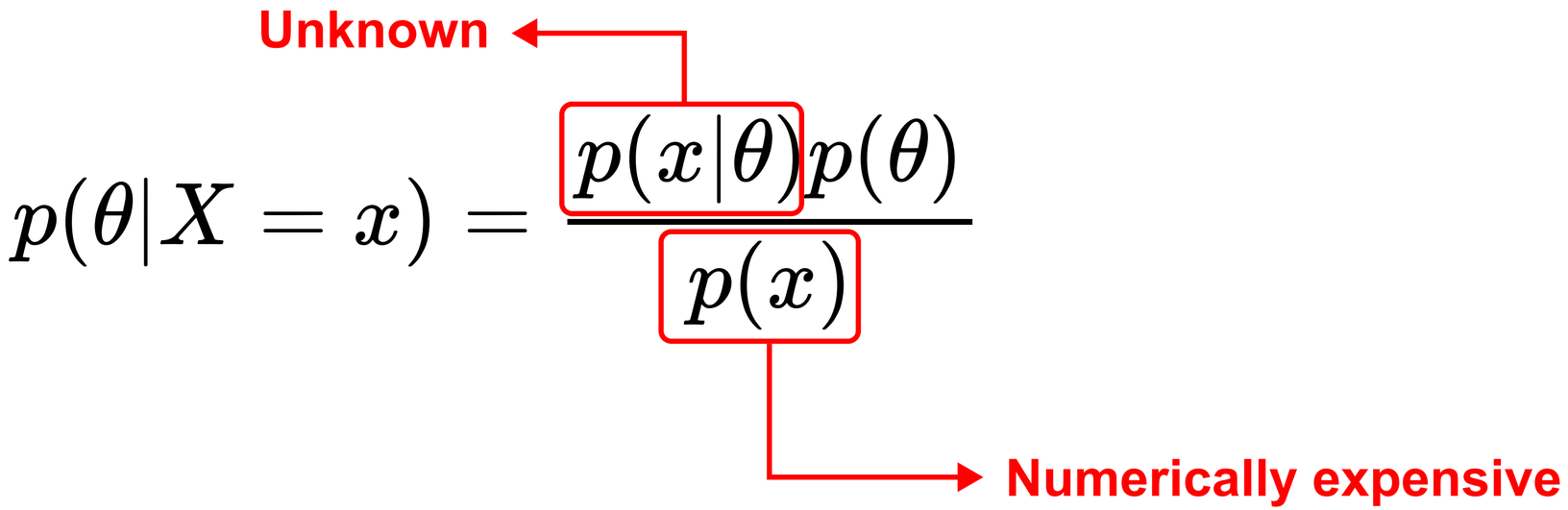

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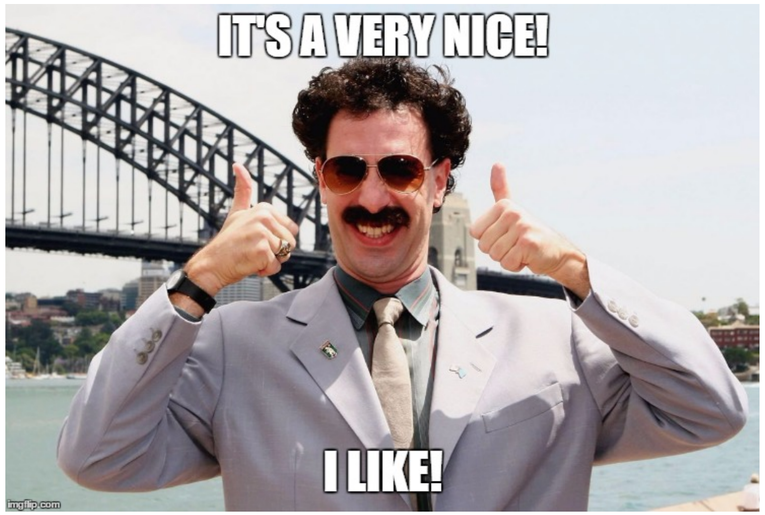

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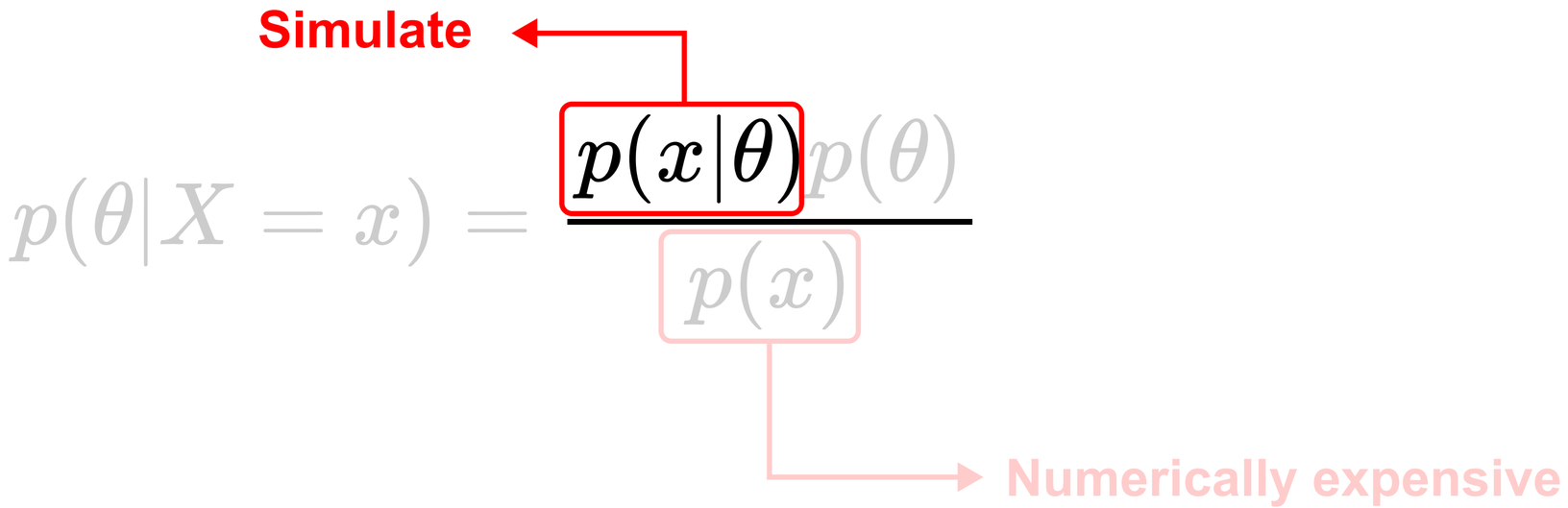
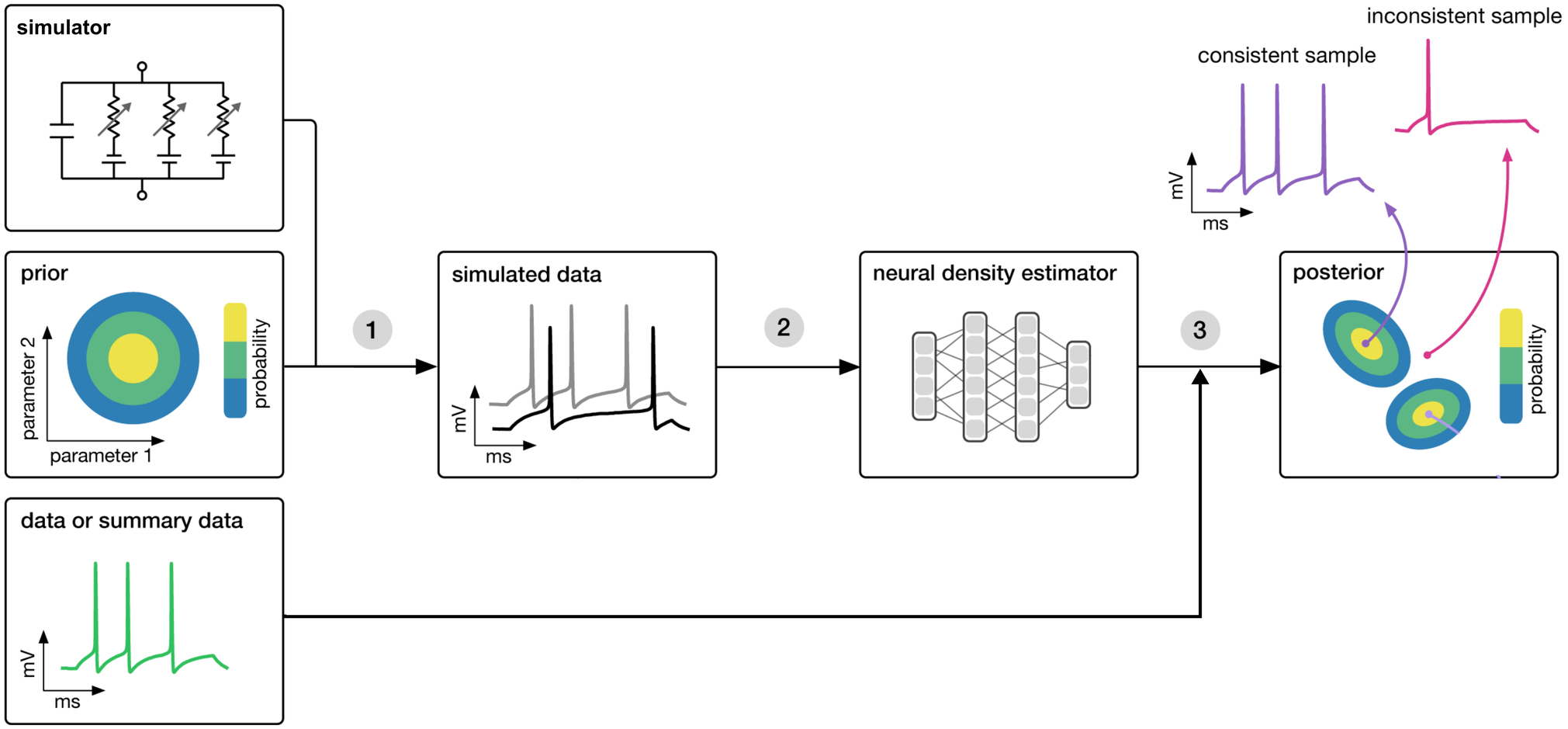
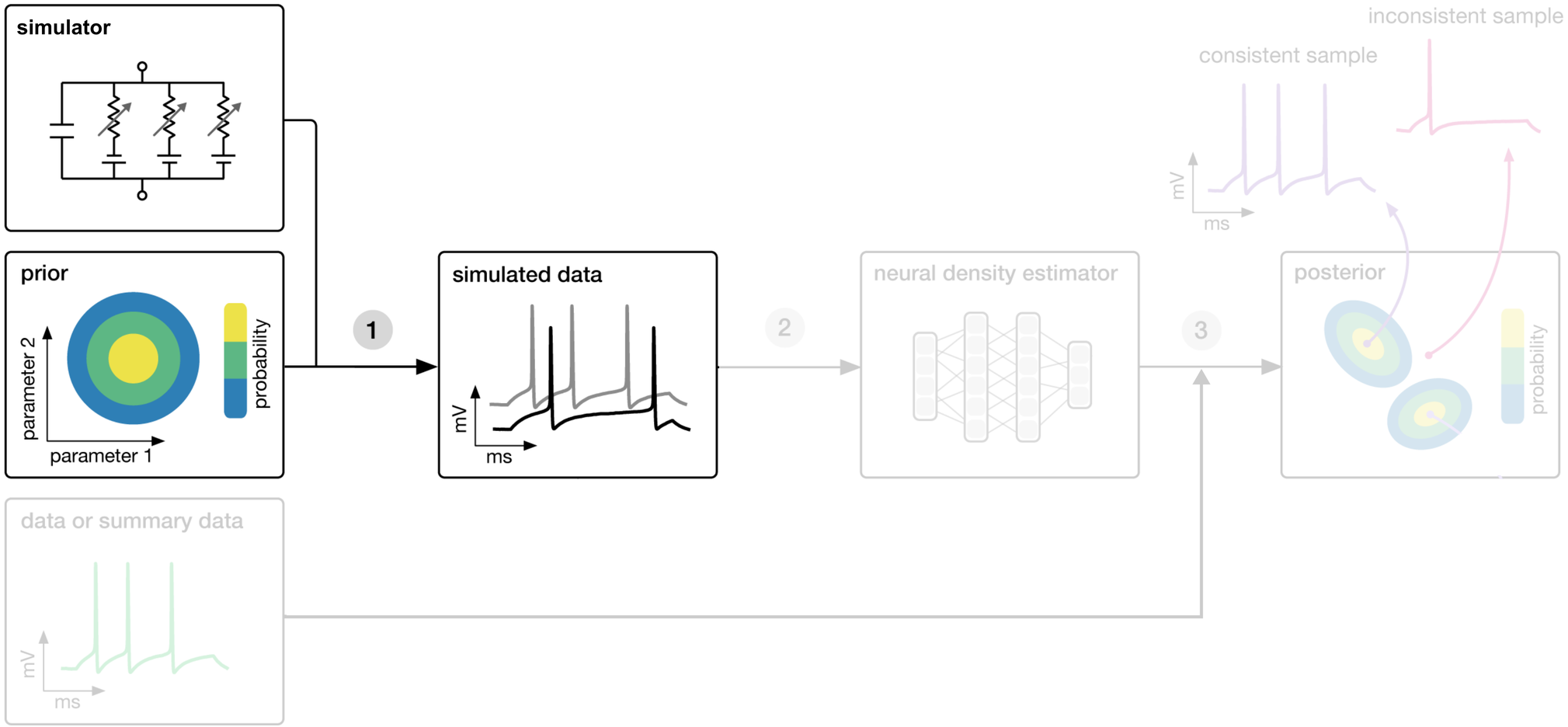


SBI Toolbox: overview

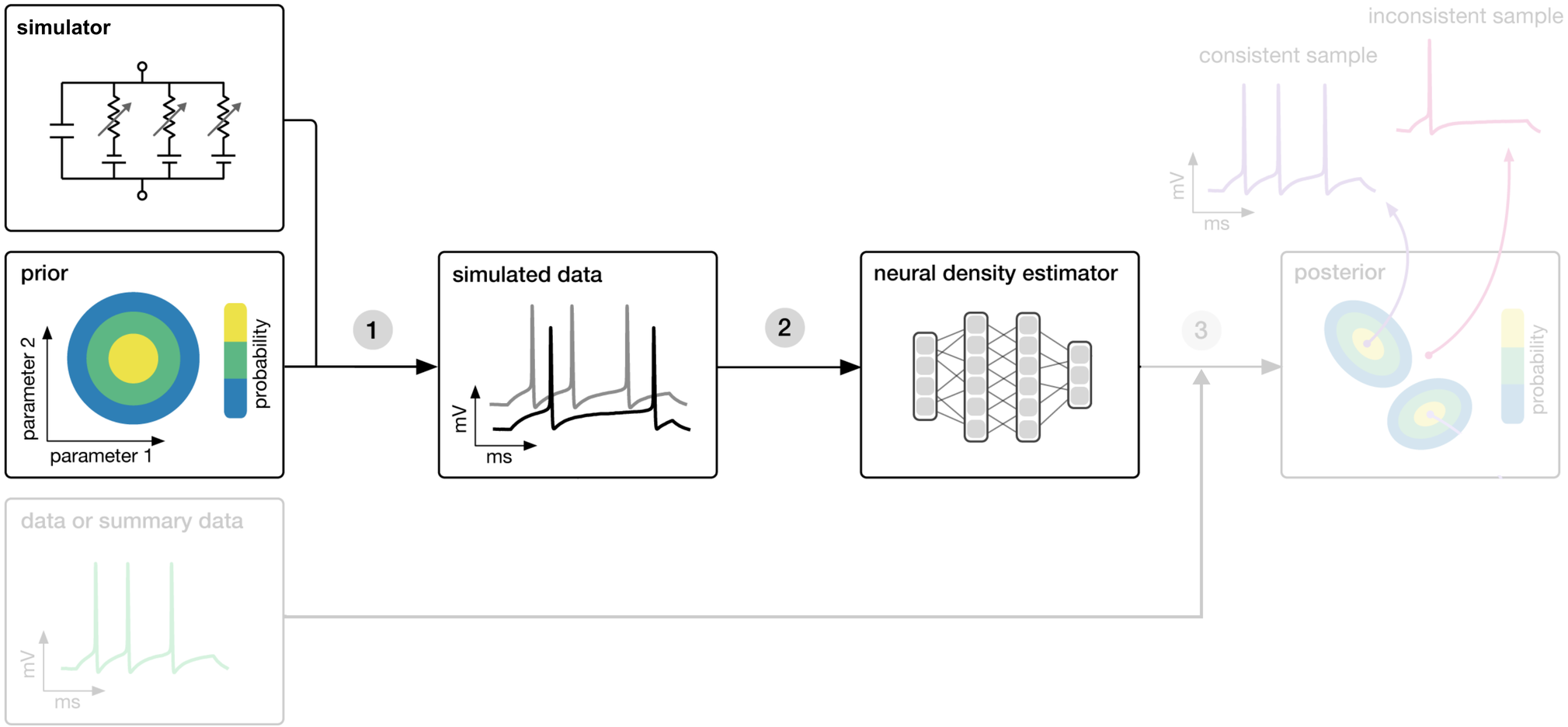


0. Basic ingredients 🍰

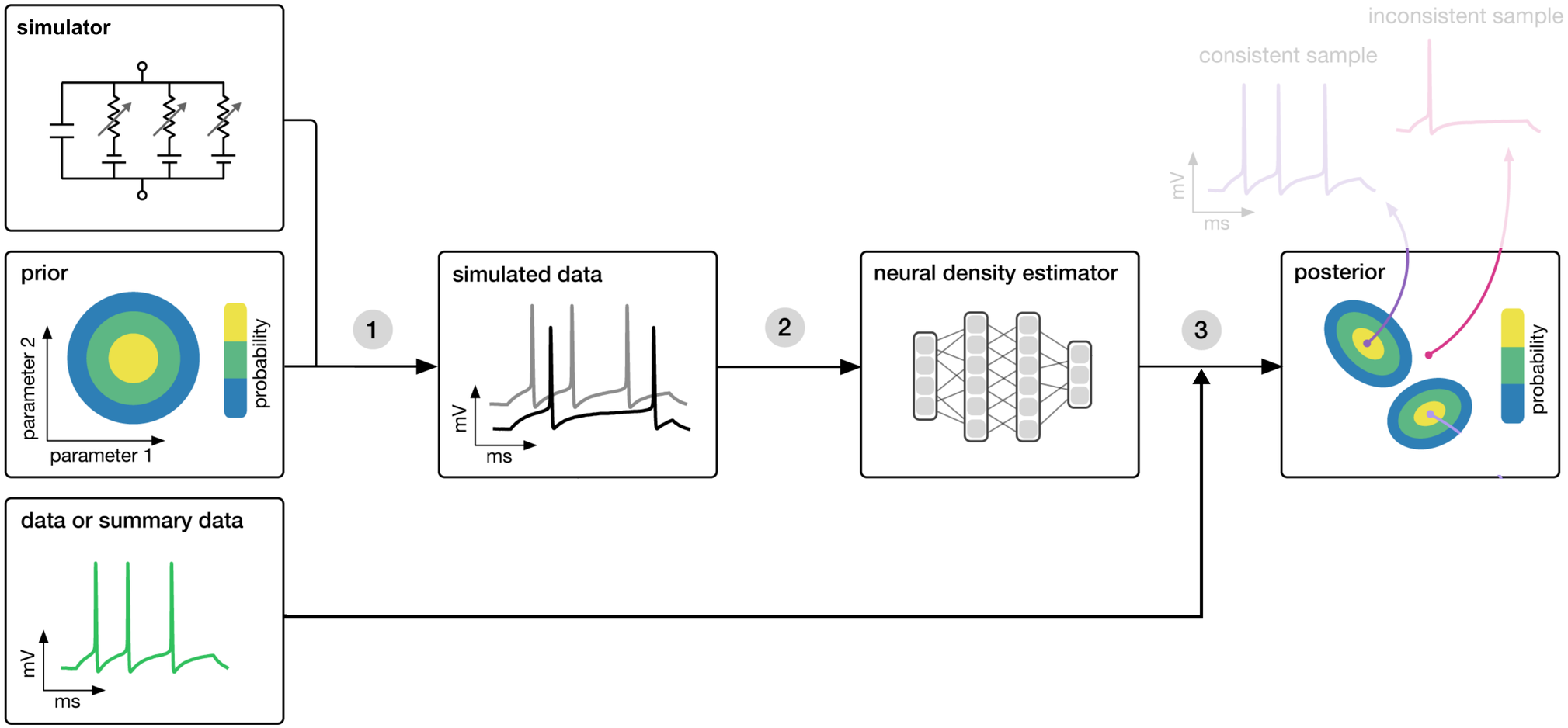
1. Simulate data



2. Pass the simulated data to the inference object



3. Build the posterior object from trained density



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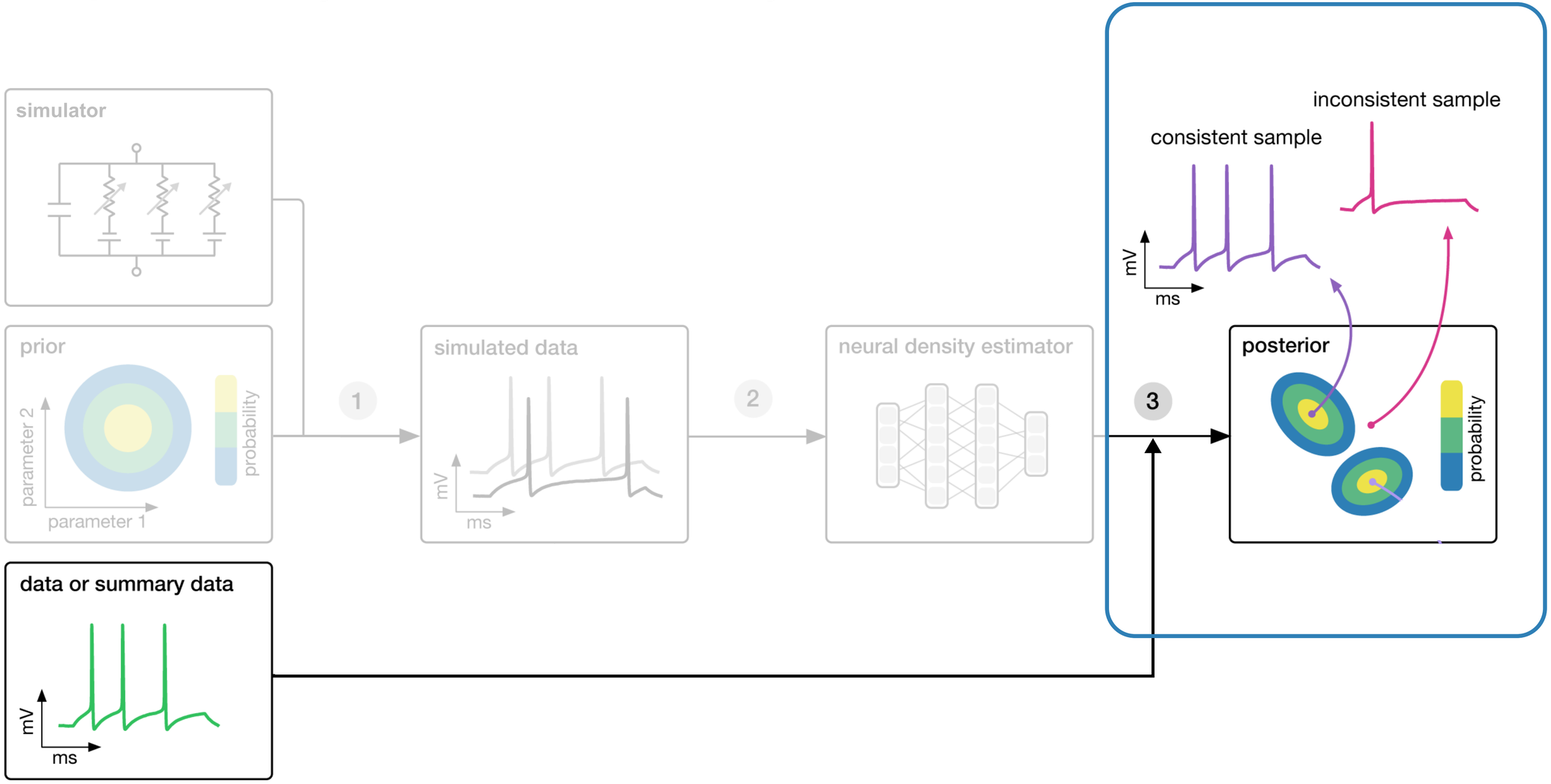

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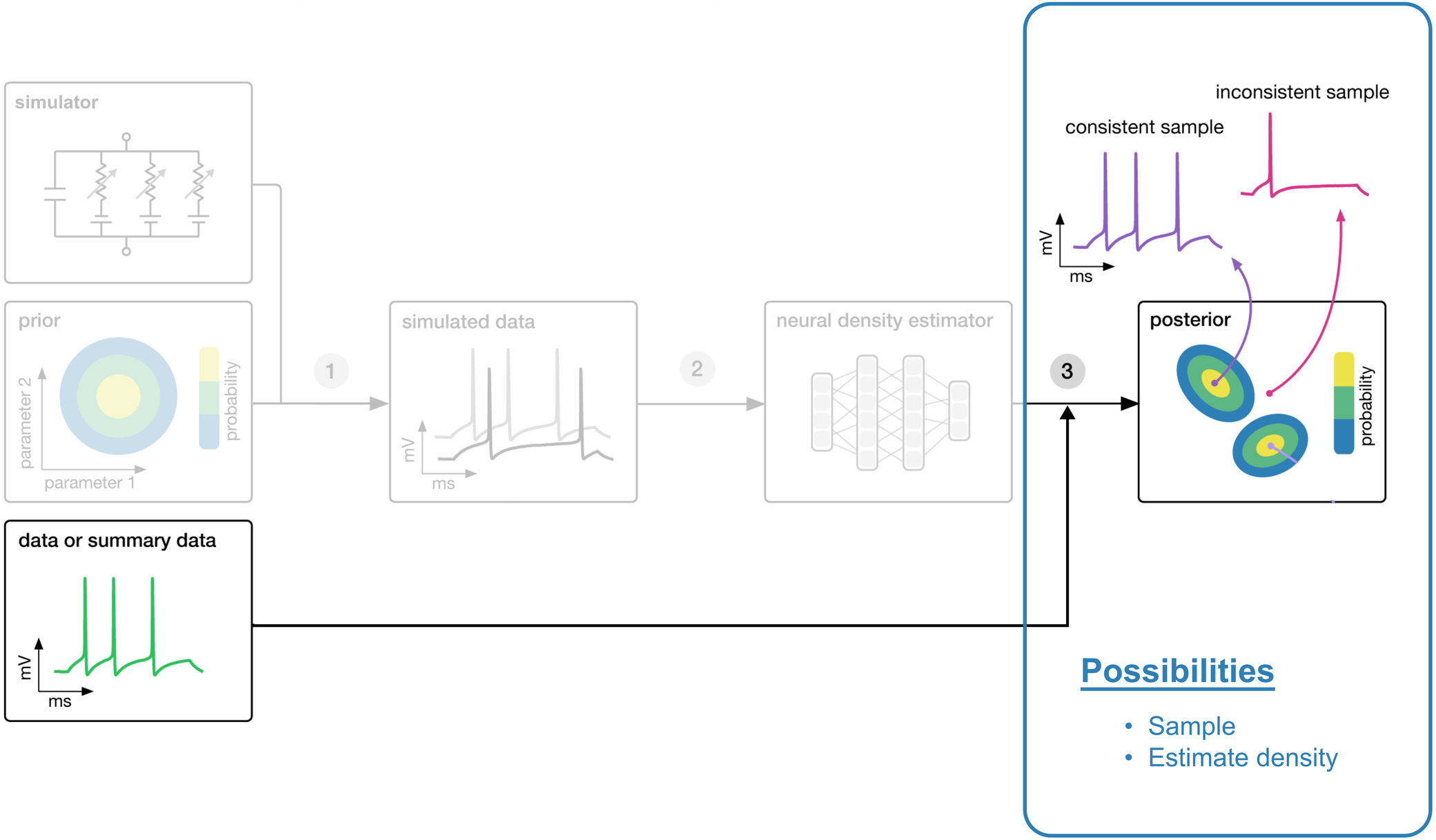
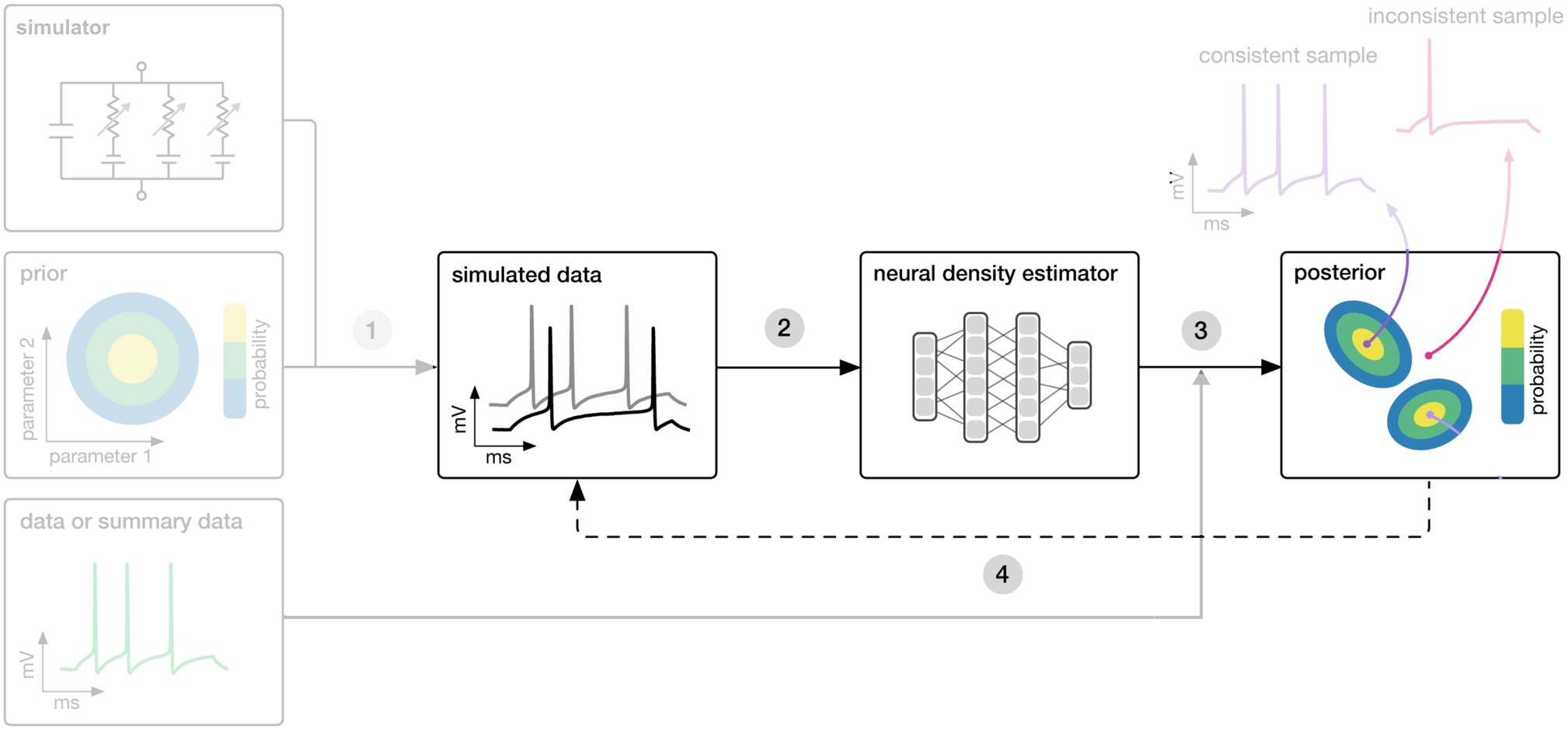


4. Multiround



Documentation

https://github.com/sbi-dev/sbi

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