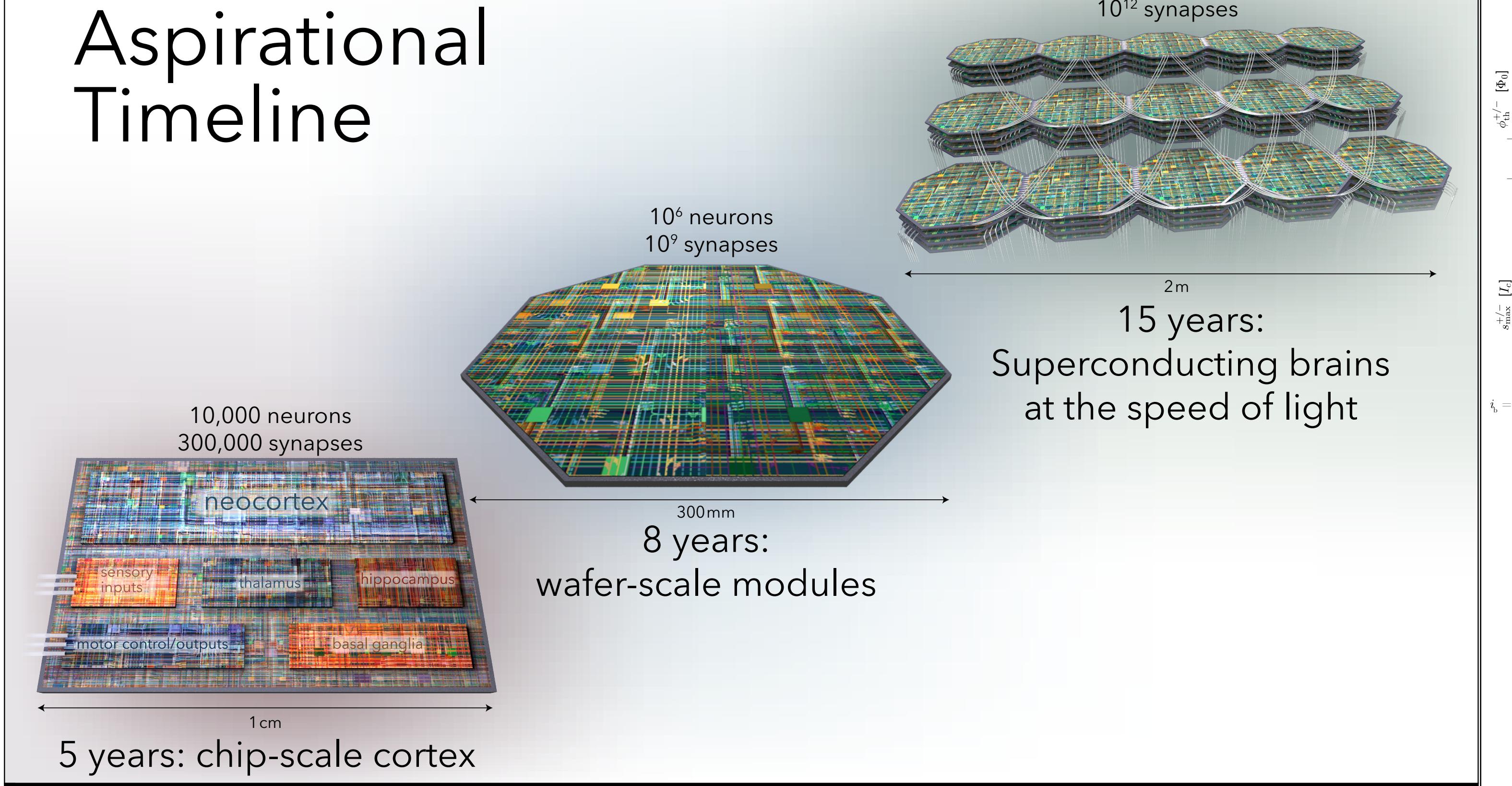
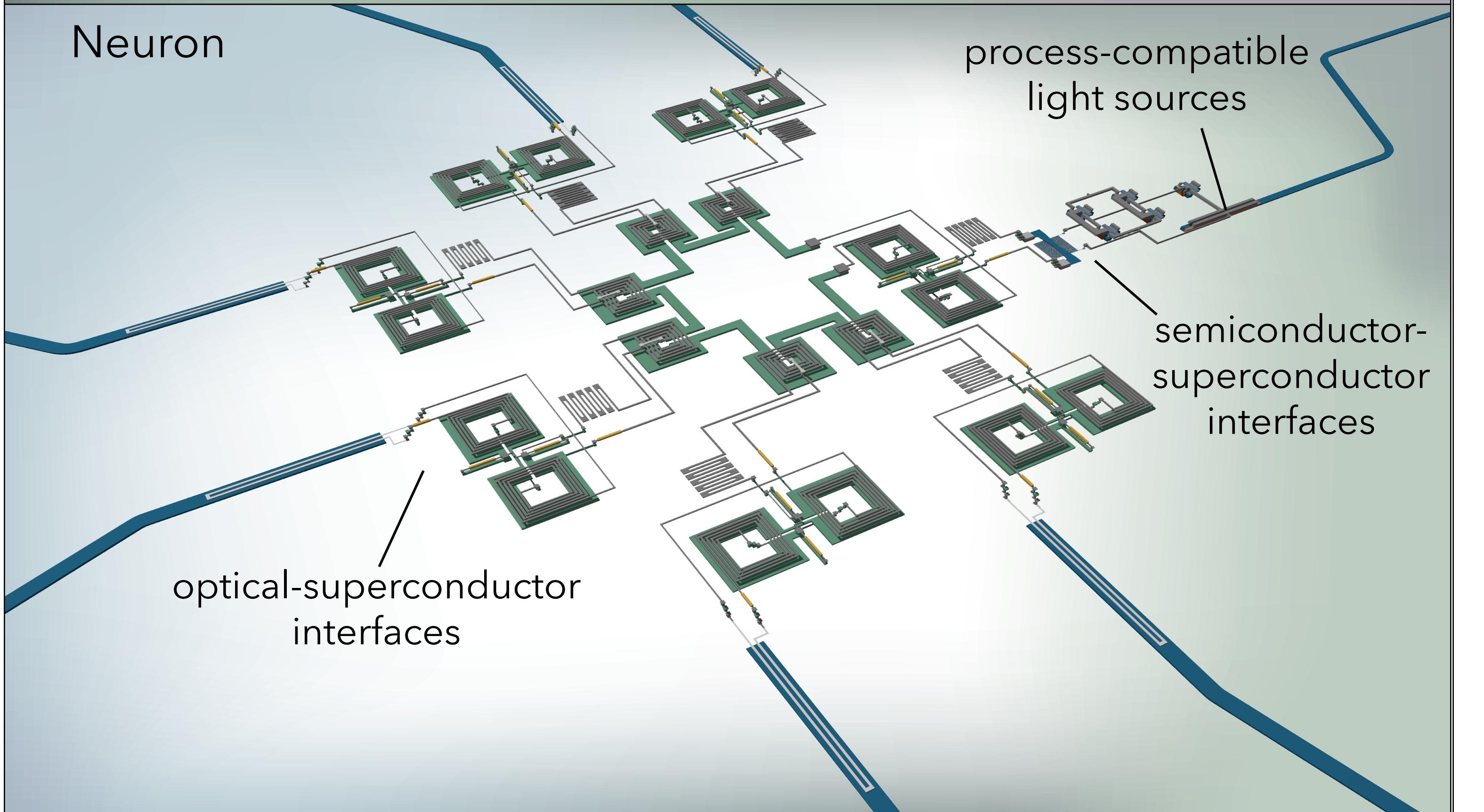
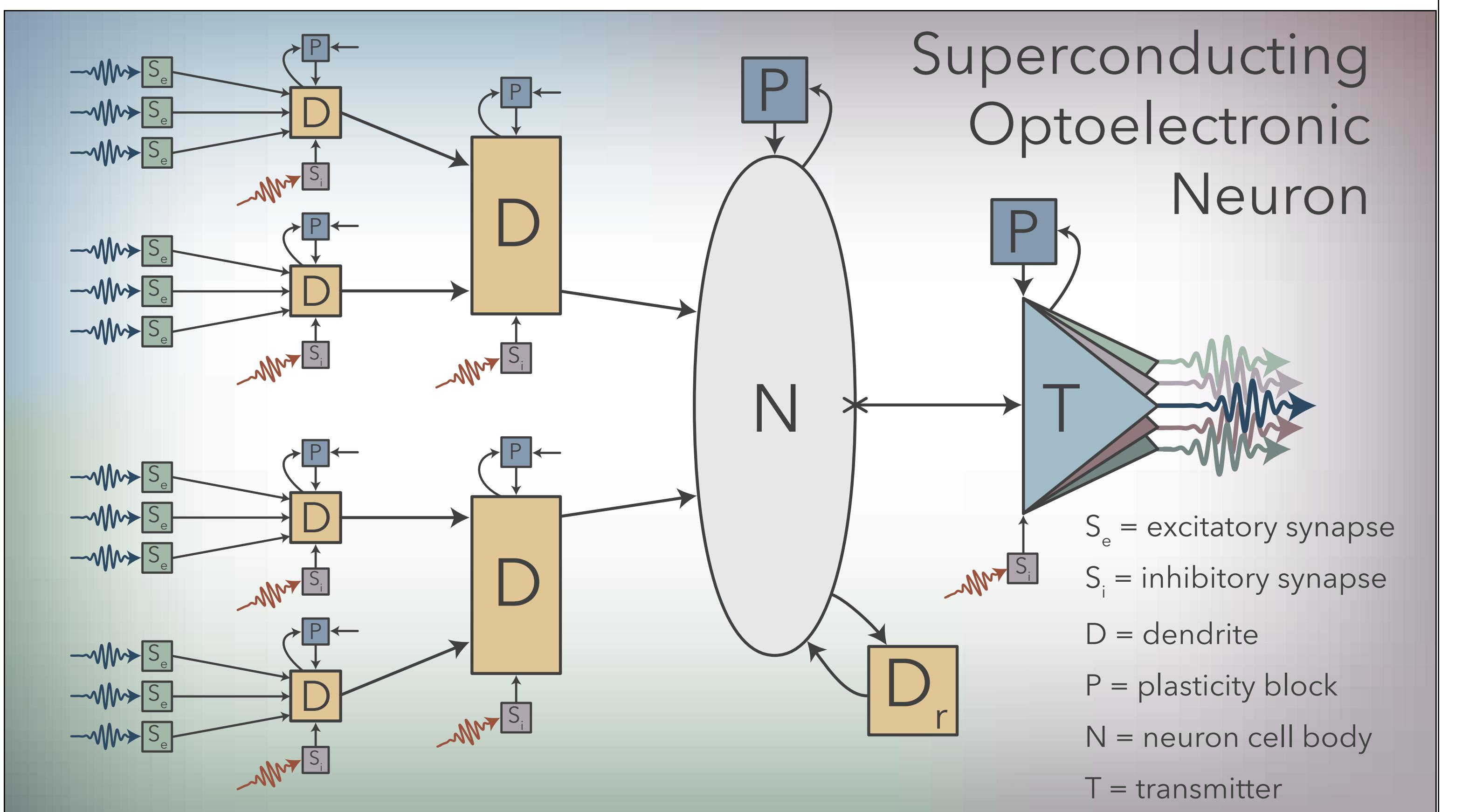


Superconducting optoelectronic networks

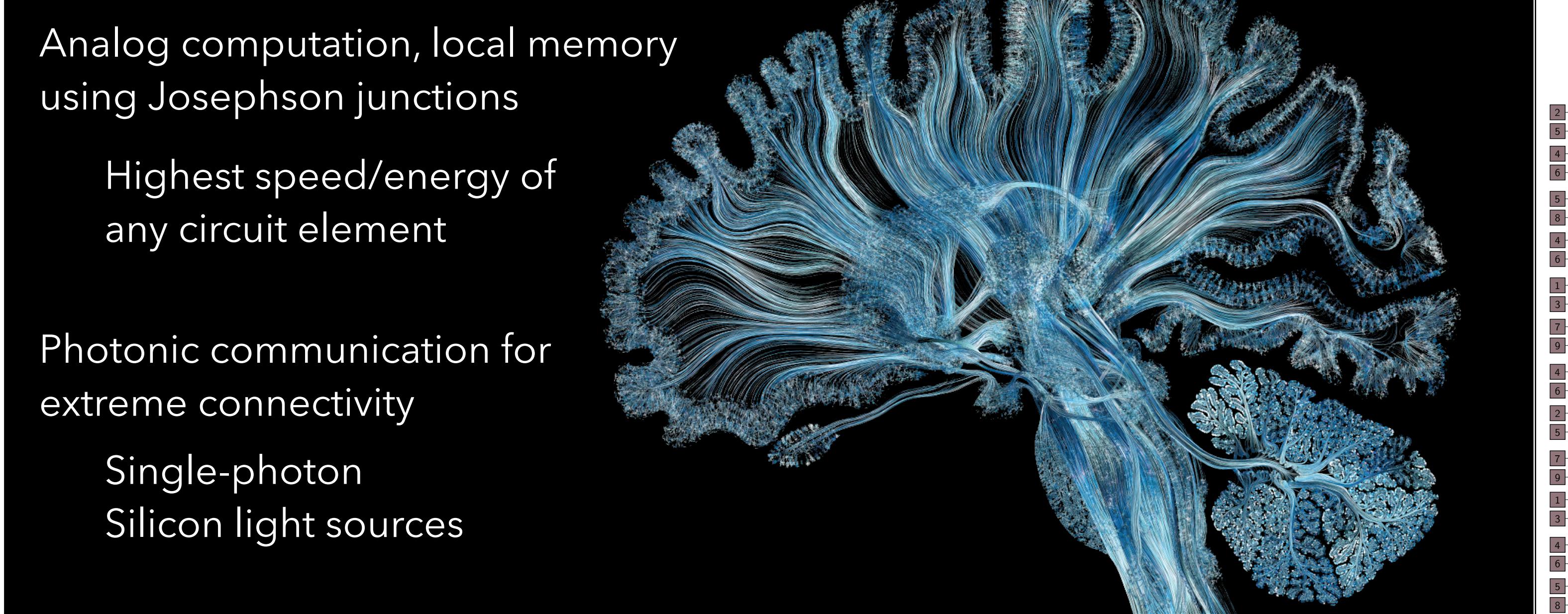
Hardware for neuromorphic supercomputing

Jeff Chiles, Saeed Khan, Ryan O'Loughlin,
 Bryce Primavera, Sonia Buckley, Adam McCaughan,
 Alex Tait, Rich Mirin, Sae Woo Nam, and Jeff Shainline
 National Institute of Standards and Technology

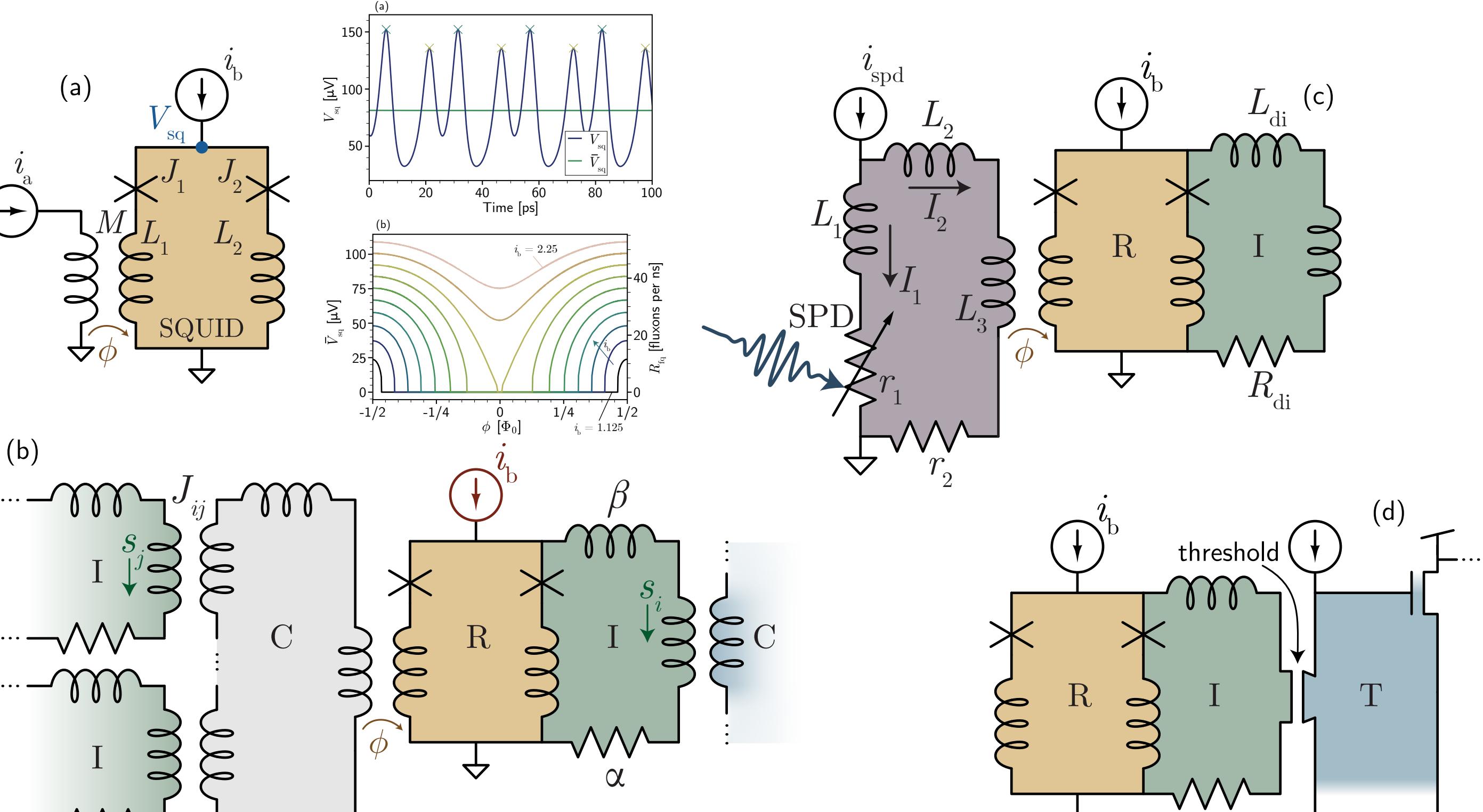
Concept



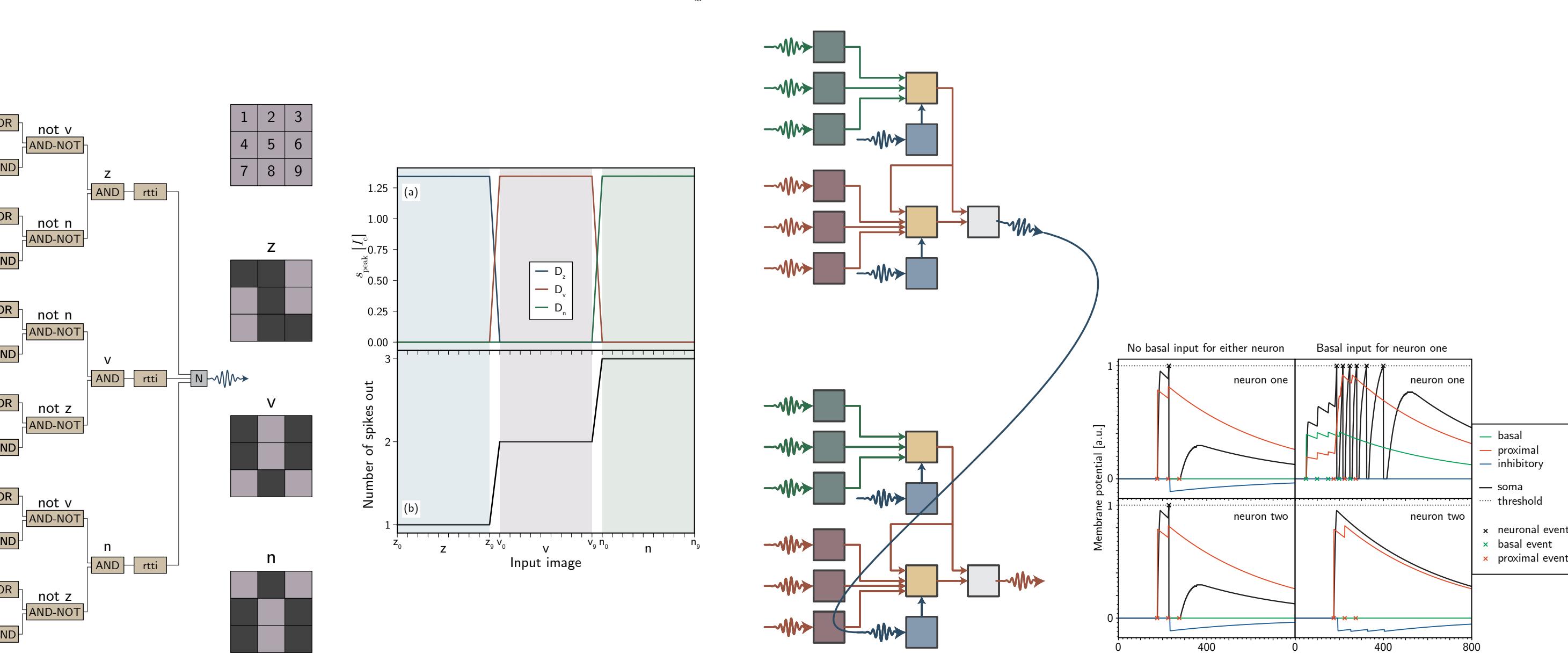
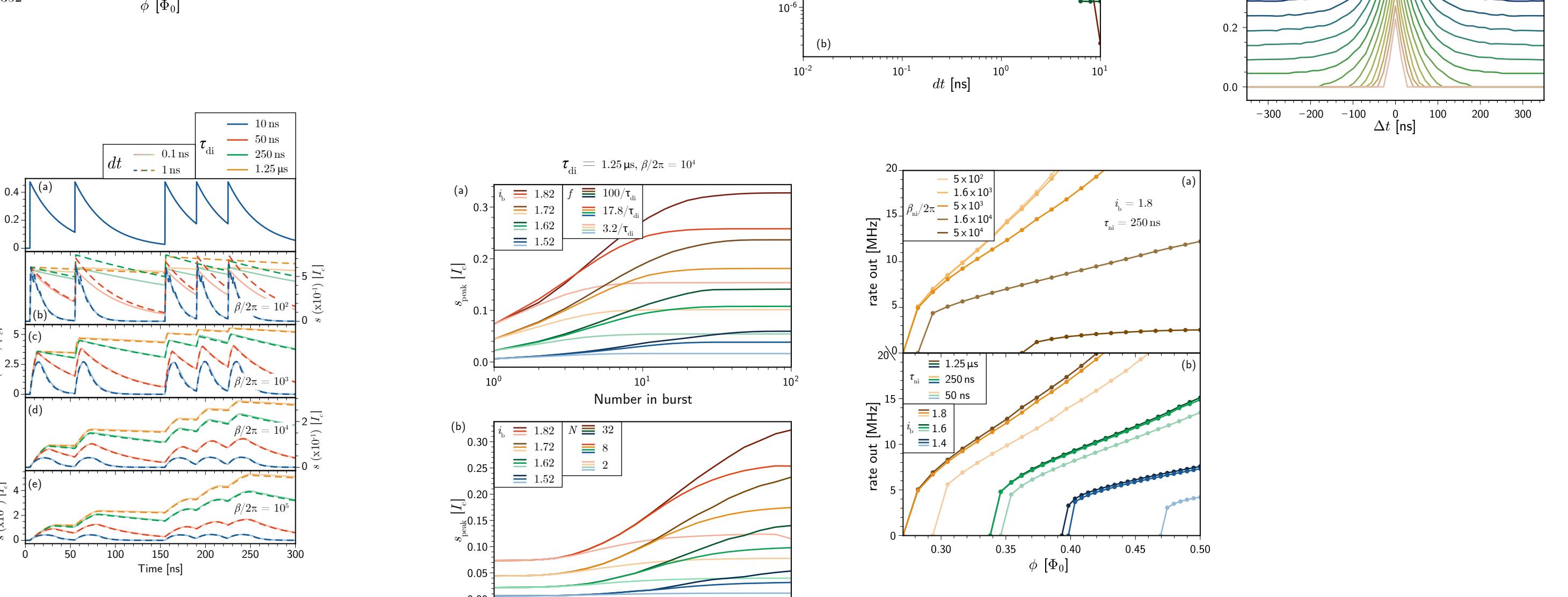
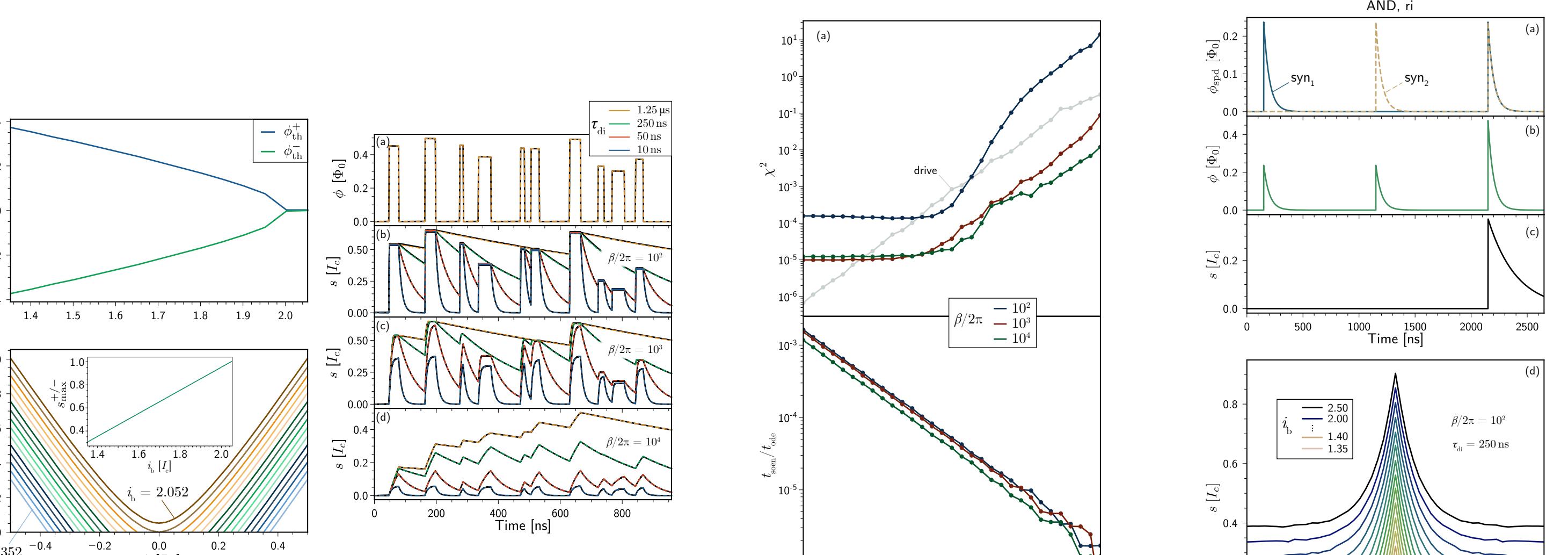
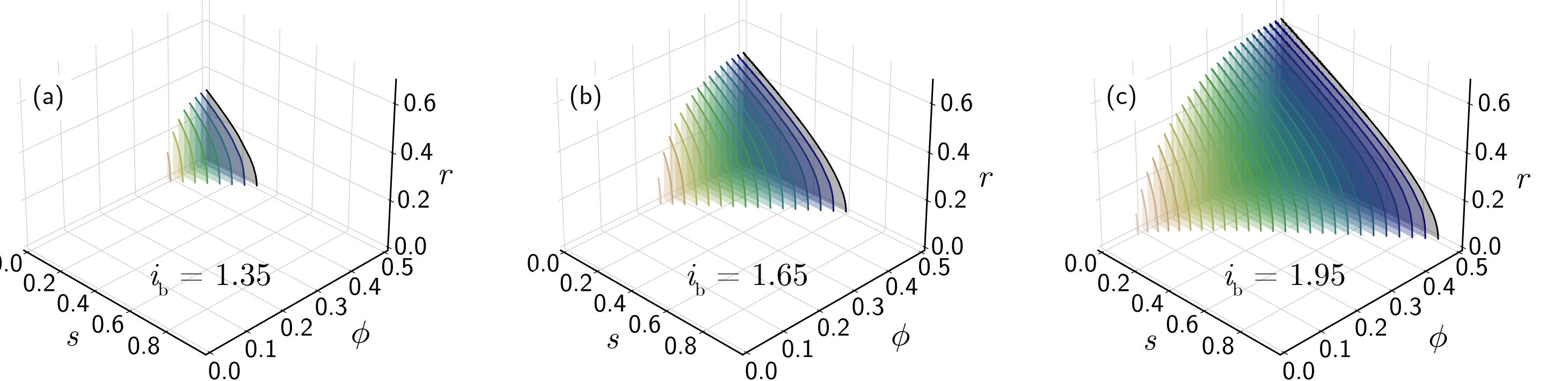
Physical limits of cognition



Model



$$\beta \frac{ds}{d\tau} = r(\phi, s; i_b) - \alpha s \quad \phi_j = \sum_{i=1}^n J_{ij} s_i$$



Experiment

