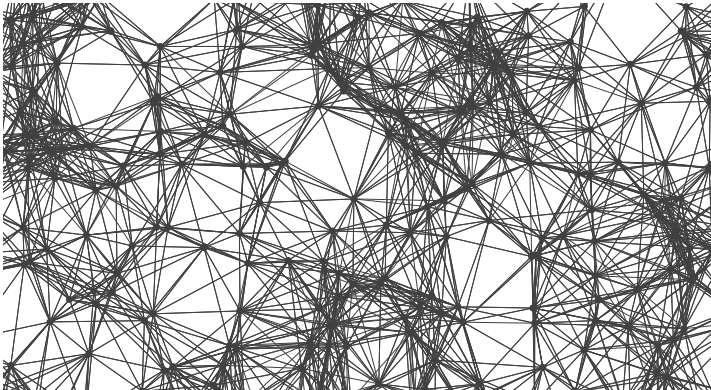


Improving the Interconnection Network of a Brain Simulator

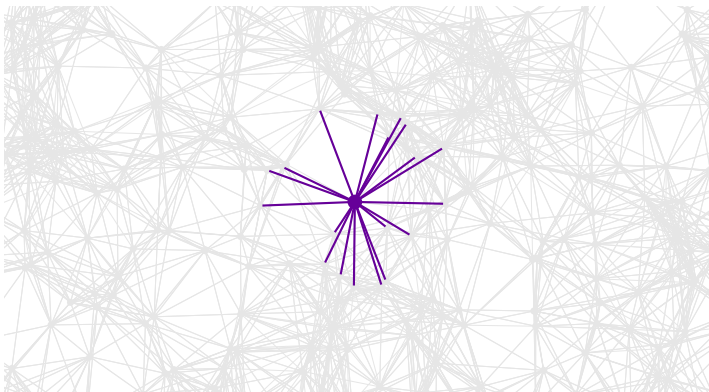
End-of-Year Presentation

Jonathan Heathcote

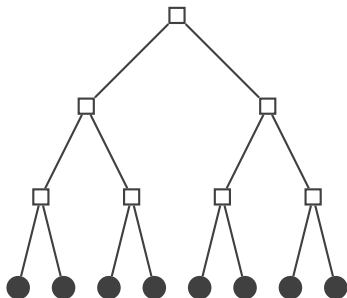
(Artificial) Neural Networks



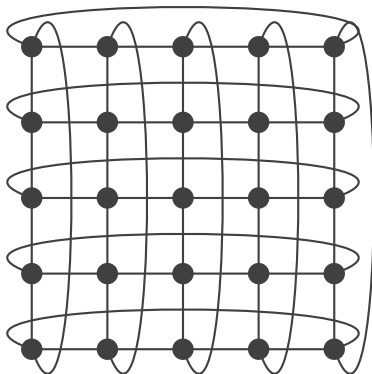
(Artificial) Neural Networks



Tree Topology



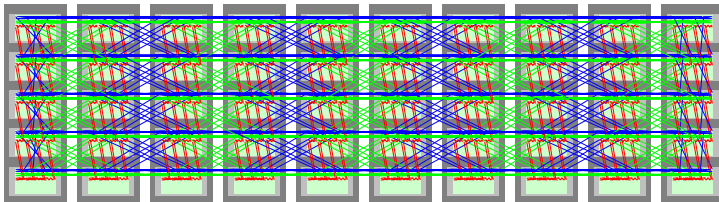
Torus Topology



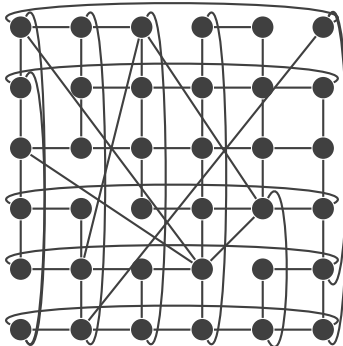
Wiring Constraints

- **Cheap Cables**
- **Short Cables**
- **Easy to Assemble (by a human)**

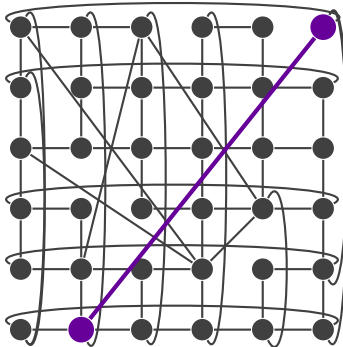
SpiNNaker in Cabinets



Small-World Topology



Small-World Topology



Research Plans

- Simulator Development
- Topology Experiments
- Detailed Architecture Simulation
- Architecture Development & Evaluation

Any Questions?