



Pyrros/Rapid Machine Model

- **Distributed memory parallel machines**
- Topologies: Ring, Hypercube, Mesh:
(CRAYT3E, NCUBE-2, NOW)
- Network delay: LogP model, linear model
- Machine Speed: Task execution, e.g Blas.
- **Cost Model for parameterized task graphs:**
Polynomial for communication and
computation weights.

Current simulation speed

- Complexity: $O((v+e)\log v)$
- Simulation time: seconds for thousands tasks; minutes for millions tasks!(Ultra-1)
- Iterative task graphs: Simulation of iterative task graphs is much faster. Size can be arbitrarily large.