Some Libraries on the Cell
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- **SPRNG Parallel Random Number Library**
  - Collaborator: K. Gunaranjan, Sri Sathya Sai University, India
  - Up to $10^9$ random number per second on each SPU

- **Common MPI Features**
  - Collaborators: M. Krishna, A. Kumar, N. Jayam, G. Senthilkumar, P.K. Baruah, R. Sarma, Sri Sathya Sai University, S. Kapoor, IBM Austin
  - Barrier under 0.5 $\mu$s on a Cell processor, 1 $\mu$s on a blade
  - Broadcast reaches memory bandwidth limit
  - Send/Receive under 0.5 $\mu$s latency
    - Up to 6 GB/s bandwidth with data in main memory
    - Up to 21 GB/s with data in local store
    - Non-blocking implementation too available