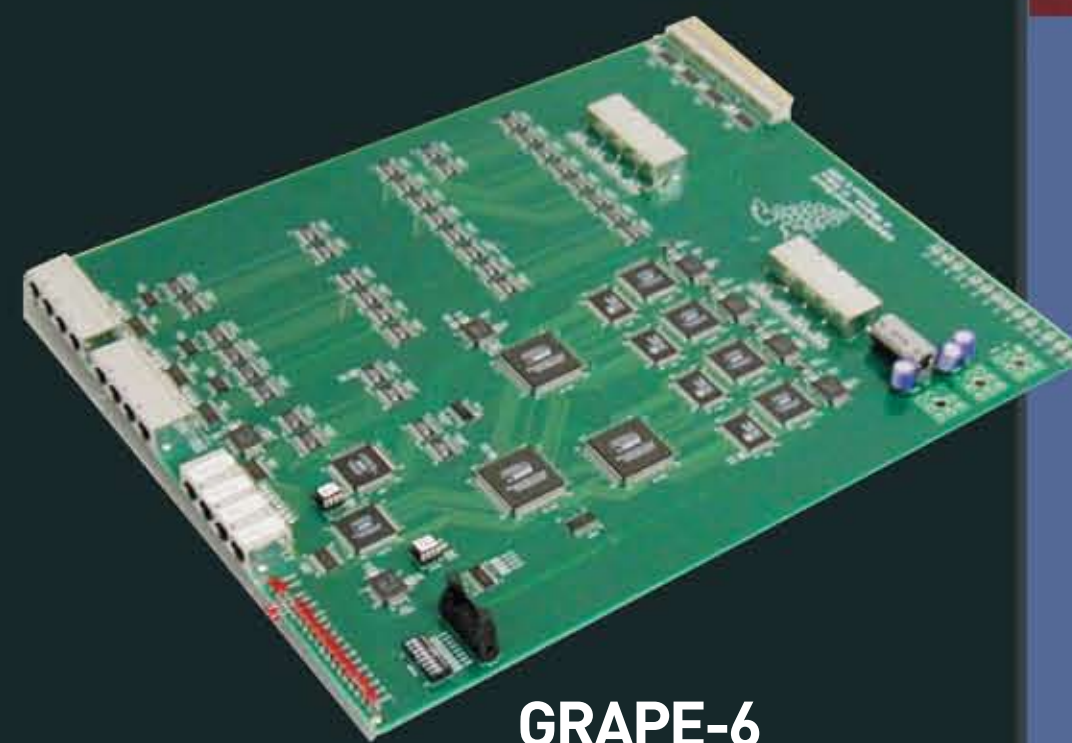


# 20 Years Unleashing the Power of HPC

# SC2002



**2002 Chair**  
**Roscoe Giles**  
**Baltimore, MD**



**GRAPE-6**  
**processor board**

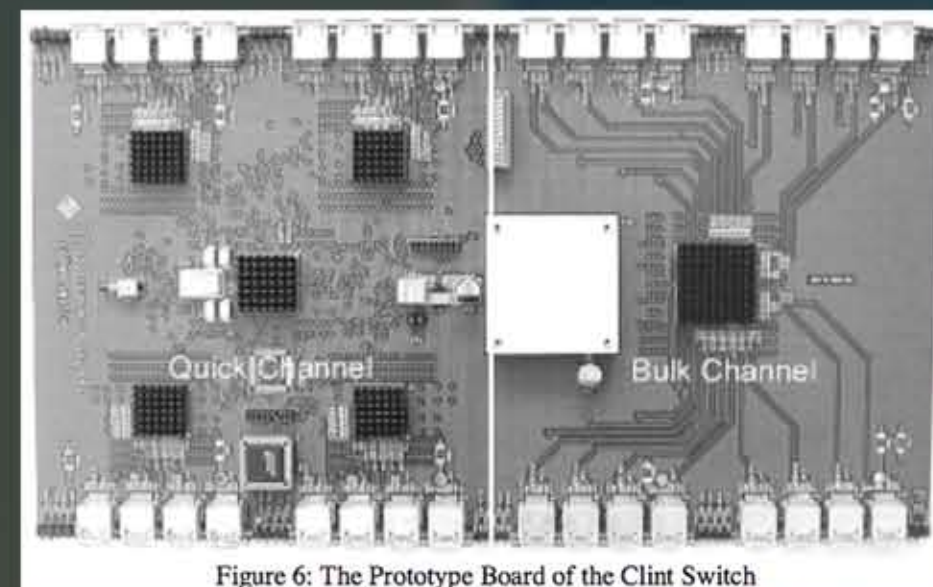


Figure 6: The Prototype Board of the Clint Switch



**The GRAPE-6 system**

## 2002

**Notable Systems first mentioned this year in the proceedings:**

- IBM P690
- BlueGene/L
- Linux Clusters
- Lemieux Cluster
- Earth Simulator

### Notable Processors

- AMD Athlon MP and XP
- Sun UltraSPARC III
- Transmeta Crusoe TM5600
- Intel Xeon

### Noteworthy Architecture Topics:

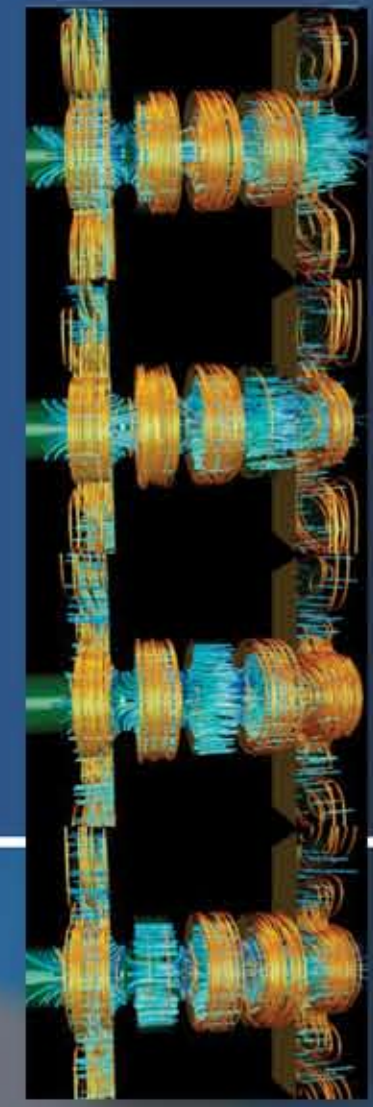
- Optical cluster interconnect
- PAPI interface to hardware performance counters
- Handling massive amounts of data
- Processor-in-memory architecture
- Open Grid services

### Notable Programming Languages

- Elan
- UPC

### Research Machines

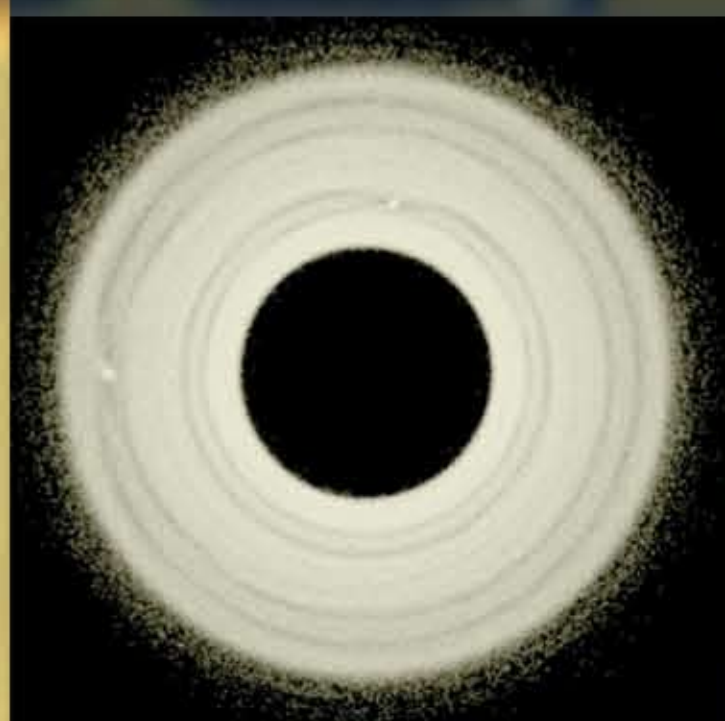
- Green Destiny
- Earth Simulator



**Visualizations of propagation of RF waves**



**Two steps in the simulation of the evolution of planetesimal bodies**



**The High Density Beowulf team**



**The High Density Beowulf blade**