

# Moving to a Secure Grid Portal

High Performance Computing Virtual Laboratory

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**Executive Director** 























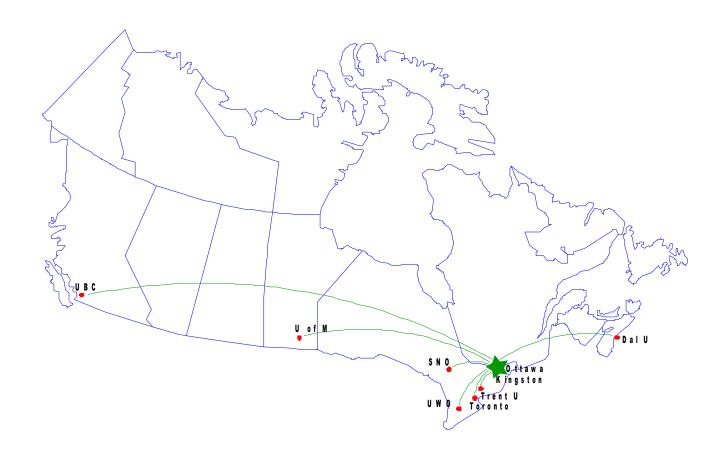


Putting R&D to Work





### What is HPCVL?



**Delivery of Secure HPC Resources for Innovative Research** 



### **HPCVL 2003**

- High calibre research
- Research success
- Attracting and retaining Pls
- Effective training and expert support
- Efficient use of resources
  - utilization
  - mode
- Growing number of users
- Stronger and growing technology partnerships

### **Excellent Return on Investment**

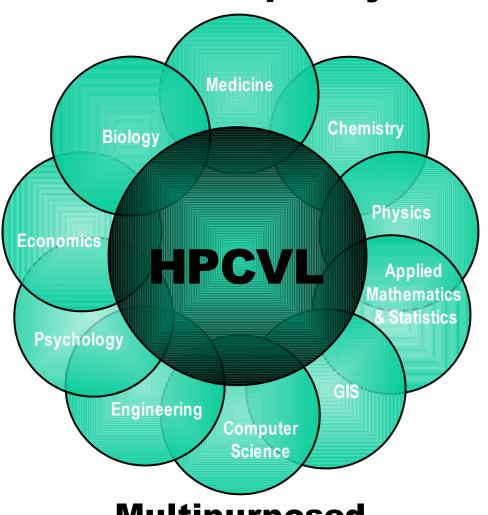


### **Sudbury Neutrino Observatory**

- Collaboration of 131 scientists in Canada, US, and UK involving Queen's, Carleton, Guelph, Laurentian, TRIUMF, UBC, Pennsylvania, Washington, Texas, Berkeley (LBNL), Brookhaven (BNL), Los Alamos (LANL), Oxford, Rutherford/Sussex
- Providing revolutionary insight into the properties of neutrinos and the astrophysics of the sun
- •HPCVL high capacity data analysis, storage, and comprehensive simulations



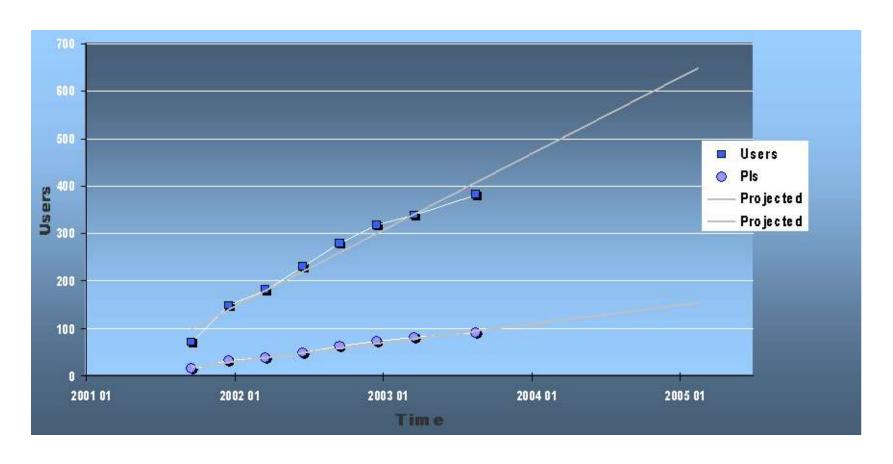
## **Multidisciplinary**



**Multipurposed** 



# **Participation Growth**



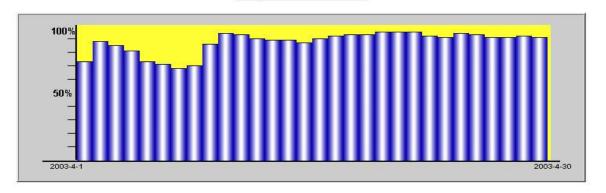




#### SunFire CPU Load

#### Average CPU Load on SunFire Cluster:

Start Date: 2003-4-1 Stop Date: 2003-4-30



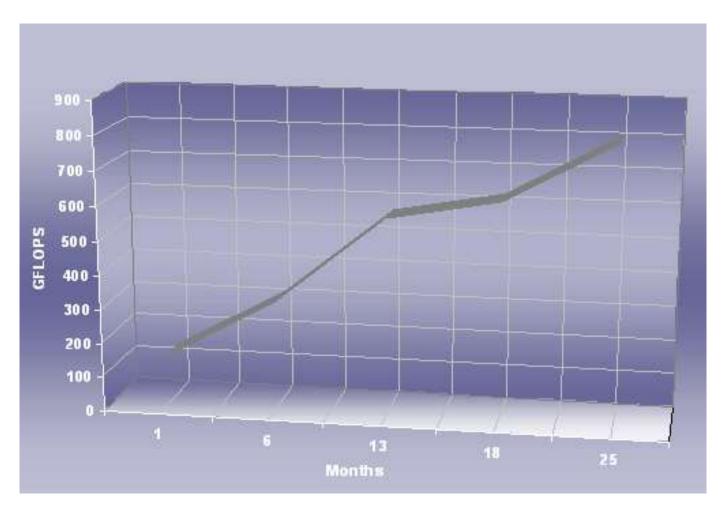
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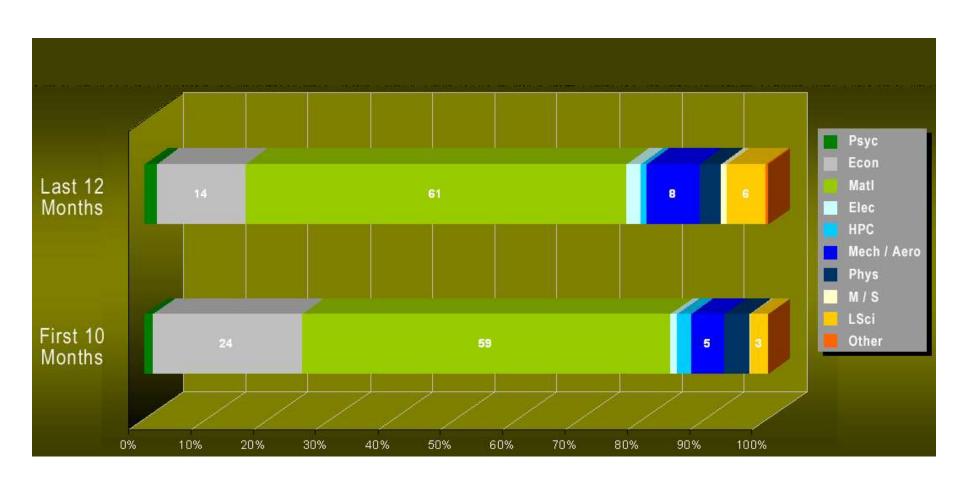


### **Growth in Theoretical Peak**



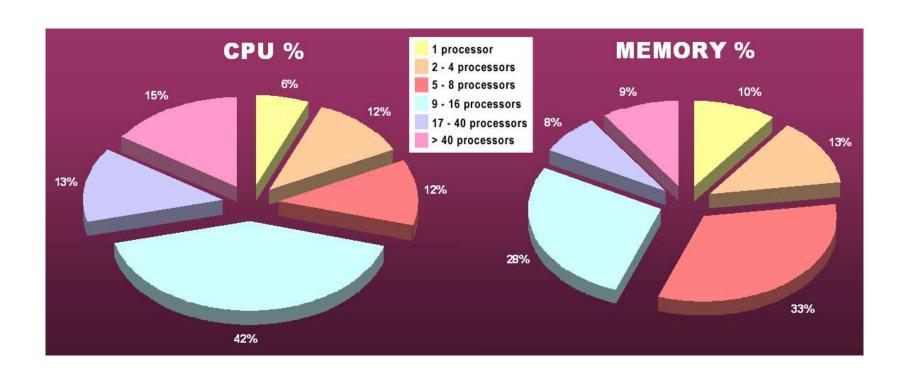


# **Discipline Usage Development**





# **Parallel Computing Statistics**

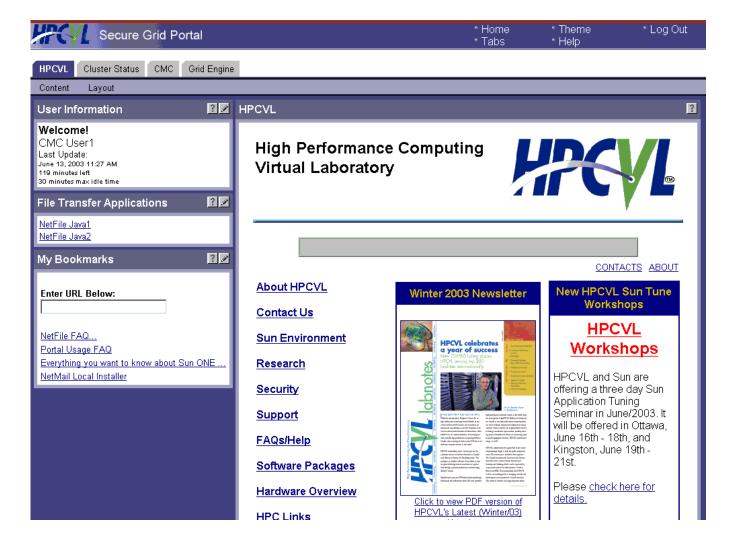




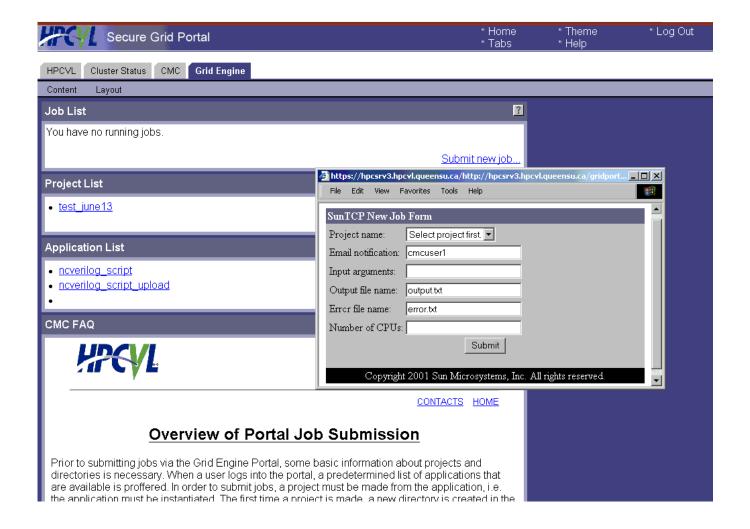
### **How HPCVL connects to the Canadian network**









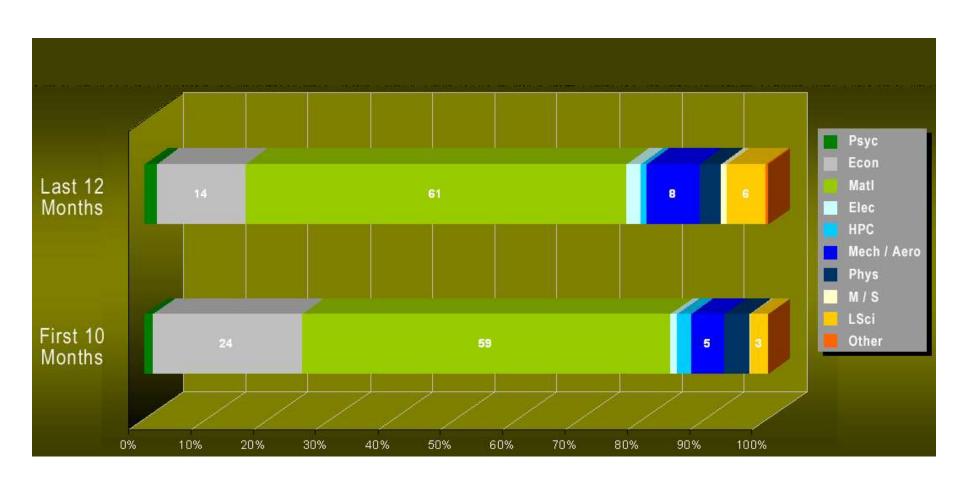




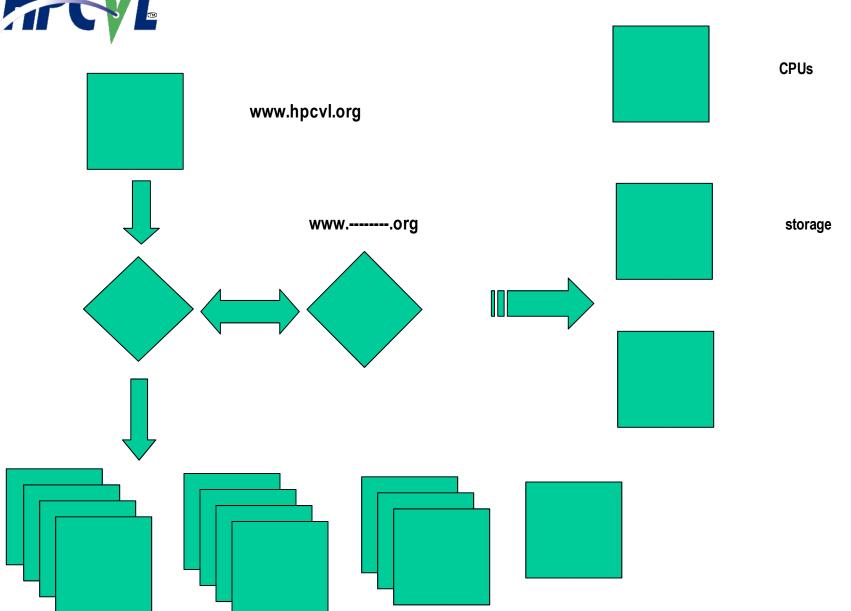




# **Discipline Usage Development**









www.hpcvl.org