

Why a LINUX cluster ?

There are several reasons why we opted for a LINUX cluster. Firstly, ofcourse for the cost, which is the one of the issues we had thought about when we bought this cluster. The funding came from Board of Research in Nuclear Sciences (BRNS), Department of Atomic Energy, Govt. of India under the contract # **2002/37/12/BRNS**. Prof. Bhanu Pratrapp Das is the principal investigator of this project entitled “ *Computational many-body theories of symmetry violation in atoms*”.

This is designed indigenously by Dr. Chiranjib Sur along with the help of Dr. Rajat K. Chaudhuri, the co-investigator of the project and Dr. Holger Merlitz, one of the former post-doc of NAPP theory group who is presently working as a scientist in Karlsruhe, Germany.

Initially we have decided to opt for Intel Pentium IV clusters. Later on we switched over to Xeon after going through all the white papers from Intel. Our computational work s highly CPU and memory intensive. Looking at our future requirements we opted for a Supermicro motherboard which has a more number of expandable DIMM slots compared to a Intel one. Finally it came up with a nice configuration and we benchmarked the same kind of machines with several vendors.

Finally, Taurus Peripherals, a Bangalore based company supplied the clusters and their engineers helped us in configuring the system and for the installation of the middle ware we need for our computation.