

# Trip Report: WLCG meeting

Mumbai, India. 1-4 Dec 2006

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## **Introduction**

The Worldwide LHC (Large Hadron Collider) Computing Grid Tier-2 workshop in Asia was a gathering of Physicists and Computer Scientists working on the establishment of the Asia regional contribution to the LHC Grid project. The goals of the workshop were to develop Tier-2 computing sites to help distribute and analyse data generated from the various detectors when the LHC comes online late in 2007.

With NZ involvement with CERN and particularly the CMS (Compact Muon Solenoid) detector on the LHC, I first visited Melbourne and then Mumbai to learn more about Grid computing and establishing a Grid site here at the University of Canterbury.

## **Part One**

The first part of my trip was a visit to the High Energy Physics group at the School of Physics, University of Melbourne. There I was collaborating with Dr Marco La Rosa, who is working on the Melbourne University Grid site for the Worldwide LHC Computing Grid, or WLCG for short. With his assistance and that of Dr Glenn Moloney, we have setup a proto-type computing grid here in the Department of Physics & Astronomy.

## **Part Two**

The second part of my trip was a visit to Mumbai and the Tata Institute of Fundamental Research in India. There I attended the Worldwide LHC Computing Grid Tier-2 workshop in Asia and EU-IndiaGrid Workshop on High Energy Physics Applications (1 - 4 Dec). This was a gathering of all those involved, or becoming involved in the CERN WLCG project in the Asia-Pacific region. The primary goal of the workshop was to assist those setting up and running the 2nd tier sites which will do much of the analysis of the data coming from the LHC experiments. I presented a talk entitled "New Zealand Site status report" covering our efforts in joining the WLCG.

I attended various talks, workshops and tutorials on the Grid infrastructure being built up with particular interest in the CMS experiment's computing requirements, which the Department and New Zealand are involved.

The meeting was attended by key staff from CERN directly involved in the Grid computing project who gave a number of valuable talks. Talks were also given by members of the Taiwan Tier-1 Grid site, which is the major site providing support and feeding data to the Asia-Pacific region. Talks from various institutions from Japan, China, Korea, Taiwan, Australia, New Zealand and India were given detailing the status of their development and issues they have confronted.

With the arrival of the KAREN advanced research network it is hoped that we can establish a significant Grid site which will aid in the distribution and analysis of CMS

data, as well as giving New Zealand researchers access to the global resources of the wider WLCG.

New Zealand has now established links with the other Asia-Pacific partners in the WLCG project and is now in the process of establishing a Tier-2 site infrastructure. This grid infrastructure will enable NZ researchers to participate fully in the research being conducted on the LHC at CERN and enable them to fully utilise their access to the CMS experiment data.

The arrival of the KAREN network is essential to the participation of NZ in this global effort to further understand the "zoo" of particles that make up our universe.

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