

Network meetings 01.10.04-30.09.05

The first network meeting was organized by the CERN node on Dec 6-8, 2005. Scientists and students (56 participants in total) from all nodes and from all the scientific areas participated, as shown in the meeting's web page:

<http://wwwth.cern.ch/quest/welcome.html>

The three days' activity was organized in morning and afternoon sessions. The first speaker of each morning session was providing an overview on the status of a specific sub-field, and was for this reason assigned a full hour time. On the first day Guido Altarelli reviewed the status of the Standard Model also discussing the recent ideas on electroweak symmetry breaking in the light of the experimental results of LEP. On the second day Jan Louis outlined the recent advances in the field of strings and supergravity, focussing in particular on compactifications with fluxes. Finally, on the third day, Graham Ross presented his view on gauge unification with and without strings, reconsidering in particular some, now more than 10 years old, issues within heterotic string theory. The rest of the talks consisted of shorter presentations (about 30 minutes) aimed at presenting interesting new results. In addition to senior scientists several postdocs and students from the nodes took part in these presentations. Among the presentations from young researchers one can remark: (1) Marc Tuckmantel (student) pointed out that in non-linear realizations of supersymmetry there exists the possibility for the Higgs to decay dominantly in the 'invisible' Goldstino + neutrino channel. (2) Juan Cascales (student) showed various explicit examples of moduli stabilization in the presence of warping and flux. (3) Sergei Dubovsky (CERN fellow) presented an original idea according to which gravitational waves have a tiny but non-vanishing mass and can thus be themselves the source of dark matter. (4) Ben Gripaios (student) presented a proposal of a fluid made out of a gauge field which modifies the dynamics of gravity. (5) P.G. Camara (student) discussed how to obtain masses for superparticles in intersecting brane models by using fluxes. (6) Giovanni Villadoro (student) showed his discovery, by the method of dimensional reduction, of novel 4-dimensional extended supergravities. Part of the second afternoon was devoted to the administrative meeting among the senior scientists of all the nodes. On that occasion a strategy to coordinate the hiring of postdoctoral fellows among the different nodes was devised. A committee was also established aimed at organizing the scientific program of the Corfu School.

In addition to the main network meeting, there were two more major meetings and seven additional "peripheral" meetings organized and partly funded by the network, where the majority of network nodes participated, that played an important role in the training program of young researchers, the communication among network members and the research and management activities of the network:

- The international conference "From the Planck scale to the Electroweak scale" (Planck 05), organized by the ICTP team of Trieste node on 23-28 May 2005. This series of meetings is one of the important events that are annually organized by members of our network. Nine network nodes were represented, including the US team (see conference list). The program focused on the central research efforts undertaken by our network. More information can be found in the web page: PUT PAGE HERE A coordination meeting of the network had also took place among scientists in charge.

- The school and workshop "The Quest for Unification: Theory Confronts Experiment"

(Corfu, Greece, 11-18 September 2005) in the frame of the Corfu Summer Institute on EPP. The total number of participants was about 100. There were given 43 talks on all the topics covered by the Network. In the mornings, there were one hour lectures for students of the Corfu School, while in the afternoons there was a workshop with half-hour talks. Eleven network nodes were represented, including the US team (see conference list). Many young researchers (postdocs and students) have participated, including I. Peddie who had just started his employment in the Greek node.

- The X-th IFT-UAM/CSIC Christmass Workshop on Particle Physics that took place in Madrid from the 15 to 17 of December, with about 50 participants. Topics covered several of the main objectives of our research program. Six network nodes were represented (Saclay, Bonn, INFN, Oxford, CERN, Madrid). More details can be found in the web page:

<http://gesalerico.ft.uam.es/workshop10/workshop04.html>

- The IFT Miniworkshop on Neutrino Physics, that was organized by the Madrid node on 18-20 May 2005. There were about 70 participants, many of them from different nodes. Nine network nodes were represented (Bonn, INFN, Trieste, Lisbon, Valencia, Oxford, CERN, Madrid, Palaiseau), including the US team. More details can be found in the web page:

<http://gesalerico.ft.uam.es/workshops/neutrinos1/index.html>

- The 1st Annual Meeting of the European Network on Theoretical Astroparticle Physics ENTApP2005, a branch of the ILIAS project., organized by the Valencia node on 11-15 April 2005. Around 75 people attended. and there were participants from eight network nodes (Bonn, Greece, INFN, Trieste, Madrid, Oxford, CERN, Valencia).

- The Summer School at Les Houches on “Particle Physics beyond the Standard Model”, 1-26 August 2005, organized by members of Saclay node (S. Lavignac). Almost all topics of our network project were covered in about 100 hours of lectures. There were about 50 students (ESR and ER) and 12 lecturers. Most of the network nodes were represented by students and speakers.

- The ICTP Spring School on Superstring Theory and Related Topics (14-22 March 2005) and Summer School in Particle Physics (13-24 June 2005), organized by the ICTP group of the Trieste node. There were about 150-200 participants, while several network nodes were represented (see conference list). Many network postdocs and students have attended.

- The “GUSTAVOFEST” Symposium in Honour of Gustavo C. Branco, organized by the Lisbon node on 19-20 July 2005. The main focus was on CP Violation and the Flavour Puzzle. Around 50 people attended, and eight network nodes were represented (Palaiseau, Saclay, INFN, Trieste, Madrid, Valencia, CERN, Lisbon).

- The 1st “LHC Olympics” meeting, organized by the network coordinator and the CERN node at CERN on 25-26 July 2005. Almost 40 physicists, with expertise ranging from the most theoretic aspects of string theory to experimental physics, took part in this program as witnessed in the meeting’s web site

<http://wwwth.cern.ch/lhcOlympics/lhcolympicsI.html>

The goal of the Olympics, is to foster scientific exchange and also collaboration between the string and field theory community and the experimental community, in the forthcoming LHC era. The meeting was declared a success by all participants. A second meeting

is planned, again at CERN, for February 2006. Eight network nodes were represented (Palaiseau, Greece, Bonn, INFN, Trieste, Madrid, Warsaw, CERN), including the US team which also was part in the organization.