



Sefydliad Gwyddorau Mathemategol a Chyfrifiannol Cymru
Wales Institute of Mathematical and Computational Sciences

Mathematical Physics Colloquium
Friday 25th January 2008, Swansea University

Seminar Room 413, Vivian Building
Department of Physics, School of Physical Sciences

Programme

14.30 – 15.30

Dr Maurizio Piai (Swansea Physics and WIMCS)

Title: Electro-weak symmetry breaking (EWSB) and conformal field theory (CFT) towards the Large Hadron Collider (LHC).

Abstract: The LHC will provide data about the fundamental physics at the TeV scale. It will directly test the new physics connected with EWSB and tell us what are the new fields and what is the strength of the new interactions that trigger the breaking. Ideas coming from the study of CFT play an important role in several possible scenarios for new physics, and the LHC will be able to test these ideas.

15.30 -16.00

Tea

16.00 -17.00

Professor Terry Gannon (Edmonton)

Title: Modular forms and 4-point functions

Abstract: Conformal blocks are the building blocks of conformal field theory, the most important perhaps being those on the 4-pointed sphere. I'll begin my talk by reviewing this basic picture, and then I'll explain a deep connection between these 4-point functions and modular forms which it seems hasn't been appreciated before. If I have time, I'll apply this to Monstrous Moonshine.

Carlos Hoyos
David E Evans

WIMCS MP Cluster