Logarithmic CFT and Representation Theory

3 - 7 October 2011

Institut Henri Poincaré

Organised by: P. Fendley, J.L. Jacobsen, N. Read, H. Saleur, V. Schomerus, and S. Simon

A workshop under the Thematic Trimester on "Conformal Field Theory and Applications" at the Institut Henri Poincaré, 5 September - 16 December 2011.

Context

Logarithmic conformal field theories (LCFTs) appear in a variety of physical contexts. These include phase transitions in 2+1 dimensional disordered non-interacting electronic systems (such as the transition between plateaux in the integer quantum Hall effect), scaling properties of geometrical objects (polymers or percolation clusters), or sigma models on supergroups, in particular in the context of the AdS/CFT conjecture. Major progress in this field has taken place recently, thanks to new methods such as the mini-super space approach, the construction of lattice regularizations, and the theory of indecomposable Virasoro modules. In many of these developments, algebraic insights play a major role, and profound relations with the theory of quantum groups at roots of unity and the theory of non semi-simple associative algebras (Temperley-Lieb, Brauer etc) have been uncovered.

Invited speakers

A. Babichenko (Weizmann), C. Candu (Hamburg),
J. Cardy (Oxford), T. Creutzig (Hamburg), M. Flohr (Hannover),
M. Gaberdiel (Zürich), A. Gainutdinov (Saclay), J. Germoni (Paris),
K. Iohara (Lyon), G. Lehrer (Sydney), P. Martin (Leeds),
O. Mathieu (Lyon), V. Mitev (Hamburg), T. Quella (Amsterdam),
J. Rasmussen (Melbourne), D. Ridout (Canberra),
P. Ruelle(Louvain), I. Runkel (Hamburg), A. Semikhatov (Lebedev),
I. Tipunin (Lebedev), J. Troost (Paris), K. Wiese (Paris).

Programme coordinated by the Centre Émile Borel of the IHP.
Registration on http://www.ihp.fr
Participation of postdocs and Ph.D. students is strongly encouraged.
For further information, contact acfta@ihp.jussieu.fr
Scientific programme on http://www.phys.ens.fr/~jacobsen/acfta

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