

LMS Durham Research Symposium 9-19 July 1991

Conformal Field Theory

PROGRAMME

Wednesday 10 July

- 9.00 am PROGRAMME ORGANIZATION
9.30 am Simon Donaldson *Conformal Field Theory and Topological Calculations*
11.15 am Jean-Bernard Zuber *Common Features in CFT and Integrable Models*
5.00 pm Graeme Segal *Conformal Field Theory*
6.30 pm RECEPTION IN GREY COLLEGE

Thursday 11 July

- 9.15 am Vaughan Jones *Knot Polynomials and Commuting Transfer Matrices*
11.15 am Vincent Pasquier *Quantization Conditions for Closed Toda Lattices*
2 pm - 4pm *Afternoon Session on Integrable Deformations of Conformal Theories* (Giuseppe Mussardo)
5.15 pm Richard Borcherds *Moonshine and Superalgebras*

Friday 12 July

- 9.15 am Edward Corrigan *Aspects of Affine Toda Field Theory*
11.15 am Charles Thorn *Reformulation of String Theory with the $1/N$ -Expansion*
2.30 pm VISIT TO DURHAM CATHEDRAL
5.15 pm Adrian Ocneanu *Operator Algebras and Topological Quantum Field Theories*
9.00 pm PUB QUIZ IN GREY COLLEGE BAR

Saturday 13 July

- 9.15 am Louis Kauffman *q -deformed Spin Networks and the Turaev-Viro Invariant*
11.15 am Jean-Loup Gervais *Quantum Group Approach to 2D Gravity*
5.15 pm Michael Thaddeus *Cohomology of Moduli of Vector Bundles and Verlinde Rules*

Sunday 14 July

OUTING TO LINDISFARNE

Monday 15 July

- 9.15 am Hubert Saleur *Algebraic Reformulation of the 4 Colour Problem*
11.15 am Werner Nahm *New W -algebras and their Representations*
2 pm - 4 pm *Afternoon Session on Topology & Quantum Groups* (Louis Kauffman)
5.15 pm Anthony Wassermann *Conformal Field Theory and von Neumann Algebras*

Tuesday 16 July

- 9.15 am Sir Michael Atiyah *Duality for Calabi-Yau Manifolds*
11.15 am Krzysztof Gawedzki *$SL(2, \mathbf{R})/O(2)$ coset CFT*
5.15 pm Tetsuji Miwa *Affine Crystals and Vertex Models*

Wednesday 17 July

- 9.15 am Greg Moore *Two-Dimensional Gravity*
11.15 am Hans Wenzl *Braid Representations and 3-Manifolds*
2 pm - 4 pm *Afternoon Session on 2D Gravity* (Paul Ginsparg)
5.15 pm Lisa Jeffrey *Chern-Simons Path Integrals and the Symplectic Action Functional*
7.30 pm CONFERENCE DINNER

Thursday 18 July

- 9.15 am Herman Verlinde *String Scattering on a Black Hole*
11.15 am Sander Bais *Non-abelian Anyons*
5.15 pm Nick Warner *$N = 2$ Supersymmetric Integrable Landau-Ginsburg Models*

“Unofficial” Sessions

Thursday 11 July: Integrable Deformations of Conformal Theories

Organiser: *G. Mussardo*

Speakers: P. Dorey, D. Bernard and Q. Y. Park

Saturday 13 July: 2-D Gravity and Topology of Moduli Space

Speaker: G. Segal

Monday 13 July: Knots and Quantum Groups

Organiser: *L. Kauffman*

Speakers: J-L. Gervais, D. Majid and B. Westbury

Tuesday 16 July: Three Dimensional Manifolds

Organiser: *J. Barrett*

Speakers: L. Kauffman, L. Jeffrey and J. Barrett.

**Wednesday 17 July: Elementary Introduction to Matrix Models
and 2-D Gravity**

Speaker: P. Ginsparg