PURE MATHEMATICS COLLOQUIUM AT GREGYNOG
16-18 MAY 1988

PROGRAMME

Monday, 16 May

7.00 p.m.	Dinner

Tuesday, 17 May

8.15 a.m. — Breakfast

9.10 - 10.10 a.m. — Professor Christopher Lance
'Fifty years of Von Neumann algebras'

10.15 - 10.55 a.m. — Professor Alun Morris (Aberystwyth)
'Spin representations of the symmetric group - a breakthrough!'

11.00 a.m. — Coffee

11.30 - 12.30 p.m. — Professor Daniel Hughes
'Extensions of classical geometries'

1.00 p.m. — Lunch

4.00 p.m. — Tea

5.00 - 5.40 p.m. — Dr. N.D. Gilbert (Bangor)
'Derivations and automorphisms'

5.50 - 6.30 p.m. — Dr. J.C. Lennox (Cardiff)
'Centrality in soluble groups'

7.00 p.m. — Dinner

8.00 p.m. — General Meeting

Wednesday, 18 May

8.15 a.m. — Breakfast

9.10 - 10.10 a.m. — Professor Christopher Lance
'Non-self-adjoint algebras - some problems and results'

10.15 - 10.55 a.m. — Dr. P. Rogosinski (Swansea)
'Generalised numerical ranges'

11.00 a.m. — Coffee

11.30 - 12.30 p.m. — Professor Daniel Hughes
'Extensions of classical geometries'

12.45 p.m. — Lunch

If you wish to attend the Colloquium, please let me know by May 3 at the latest

HPR.

University of Wales   *Prifysgol Cymru*

PURE MATHEMATICS COLLOQUIUM AT GREGYNOG

20 - 22 MAY 1991

PROGRAMME

Monday, 20 May

7.00 p.m.   *Dinner*

Tuesday, 21 May

8.15 a.m.   *Breakfast*

9.10 - 10.10 a.m.   Professor John Coates, FRS
                  The Arithmetic of Elliptic Curves I

10.15 - 10.55 a.m.   Professor Alun Morris (Aberystwyth)
                  Schur Q-Functions with Applications

11.00 a.m.   *Coffee*

11.30 - 12.30 p.m.   Professor Terry Lyons, FRSE
                  Dirichlet Forms, Diffusion Processes, and Groups I

1.00 p.m.   *Lunch*

4.00 p.m.   *Tea*

5.00 - 5.40 p.m.   Dr. Také Yamanouchi (Swansea)
                  Groupoids and Algebras

5.50 - 6.30 p.m.   Professor Lance Littlejohn (Cardiff)
                  The Bessel Moment Problem

7.00 p.m.   *Dinner*

8.00 p.m.   General Meeting

Wednesday, 22 May

8.15 a.m.   *Breakfast*

9.10 - 10.10 a.m.   Professor John Coates, FRS
                  The Arithmetic of Elliptic Curves II

10.15 - 10.55 a.m.   Professor Ronnie Brown (Bangor)
                  Groups which are Graphs - (and Vice Versa!)

11.00 a.m.   *Coffee*

11.30 - 12.30 pm.   Professor Terry Lyons, FRSE
                  Dirichlet Forms, Diffusion Processes, and Groups II

PRIFYSGOL CYMRU

CYNHADLEDD MATHEMATEG PUR GREGYNOG 1993

Llun 24 Mai hyd Mercher 26 Mai

UNIVERSITY OF WALES

GREGYNOG PURE MATHEMATICS COLLOQUIUM 1993

Monday 24 May to Wednesday 26 May

PROGRAMME

Monday 24th May

Chair of session	Prof R Brown	
18.00 - 18.40	Prof R Street (Macquarie and Bangor)	
	String diagrams and tensor categories	
19.00	Dinner	
20.00 - 20.30	Dr G A Elliot (Copenhagen, Toronto and Swansea)	
	Invariants for C-algebras*	
20.35 - 21.05	Dr I V Cherednik (North Carolina, Chapel Hill and Swansea)	
	Macdonald's conjecture and the quantum many body problem	

Tuesday 25th May

8.15 - 9.00	Breakfast
Chair of session	Prof A Morris
9.10 - 10.10	Prof. J. M. Howie DSc, FRSE (St Andrews)
	Combinatorial aspects of transformation semigroups
10.15 - 10.55	Dr M L Nazarov (Moscow and Aberystwyth)
	Irreducible finite-dimensional representations of the degenerate affine-Hecke algebra and the fusion process
11.00	Coffee
11.30 - 12.30	Sir Peter Swinnerton-Dyer FRS (Cambridge)
	The Falkner-Skan equation $y''' + yy'' + \lambda(1 - y'^2) = 0$
13.00	Lunch
14.00 - 16.00	Informal discussions
16.00	Tea
17.00 - 18.40	Splinter groups

Category theory and homological algebra

Chair of session	Dr T Porter
17.00 - 17.20	Mr A Tonks (Bangor)
	Small models for homotopy colimits
17.25 - 17.45	Mr G Evans (Swansea)
	The operations of direct sum and tensor product on the K-homology groups $K_0(BU(N))$
17.50 - 18.10	Mr S Crans (Bangor and Utrecht)
	Higher dimensional groupoids

Algebra

Chair of session	Dr C Wensley
17.00 - 17.20	Ms D Kraus (Cardiff)
	Another class-breadth problem for finite p-groups
17.25 - 17.45	Mr A Jones (Aberystwyth)
	Young and Nazarov symmetrizers
17.50 - 18.10	Mr L Hawkins (Aberystwyth)
	Macdonald modules for Weyl groups
18.15 - 18.35	Mr P Goldstein (Swansea)
	Cuntz-Krieger C*-algebras
19.00	Dinner
20.00	General Meeting

Wednesday 26th May

8.15 - 9.00	Breakfast
Chair of session	Prof J Wiegold
9.10 - 10.10	Prof. J. M. Howie FRSE
	Arithmetical questions arising from a semigroup embedding theorem
10.15 - 10.55	Prof M N Huxley (Cardiff)
	Some problems in which a curve is approximated by a polygon
11.00 - 11.30	Coffee
11.30 - 12.30	Sir Peter Swinnerton-Dyer FRS
	The Falkner-Skan equation $y'' + yy'' + \lambda(1 - y'^2) = 0$
12.45	Lunch

PARTICIPANTS

Invited Speakers

Prof J M Howie, D.Sc., F.R.S.E. University of St Andrews

Sir Peter Swinnerton-Dyer F.R.S. University of Cambridge

Aberystwyth

Staff

Dr C R Fletcher
Mr J M J John
Prof N Lloyd
Dr T P McDonough
Prof A Morris
Dr K Rowlands

Visitors

Prof M L Nazarov (Moscow)

Research Students

Mrs J Andrews
Ms C Barop
Mr H Can
Mr L Hawkins
Mr A Jones

Bangor

Staff

Prof R Brown
Dr M V Lawson
Dr T Porter
Dr C D Wensley

Visitors

Dr S A Basarab (Inst. of Maths of the Romanian Academy, Bucharest, Romania)
Mr and Mrs Sjoerd Crans and Samuel (Utrecht University)
Dr Peter Cromwell (Liverpool University)
Prof and Mrs Ross Street (Macquarie University, NSW)
Dr Dominic Verity (Macquarie University, NSW)

Research Associate

Dr W Dreckmann (Dr rer. nat. Universität Bonn)

Research Students

Mr Z Arvasi
Mr P Hines
Mr I Icen
Mr A Tonks

Cardiff

Staff

Dr G R H Greaves
Prof M N Huxley
Dr J C Lennox
Dr J F Rigby
Prof H Smith
Prof J Wiegold

Visitor

Dr K Valente (Colgate University, USA)

Research Student

Ms D Kraus

Swansea

Staff

Dr E J Beggs
Dr F W Clarke
Dr R J Cooke
Prof D Evans
Dr J D Gould
Dr M T McGregor
Dr H P Rogosinski

Visitors

Dr I V Cherednik (University of North Carolina, Chapel Hill)
Prof G Elliot (The Universities of Copenhagen and Toronto) and Mrs Elliot (Prof Noriko Yui, Queens' University, Ontario and Newton Institute)

Research Associates

Dr and Mrs Hongbing Su
Dr Masaki Izumi (RIMS, Kyoto)

Research Students

Mr G Evans
Mr P Goldstein
Mr Marjono

Ivan CHEREDNIK

Title: 'Macdonald's conjecture and the quantum many body problem'

Abstract
This talk concerns the Macdonald constant term conjecture which was proved recently by means of Hecke algebras and certain constructions from physics.

Sjoerd CRANS

Title: 'Higher dimensional groupoids'

Abstract
There are as many higher-dimensional generalisations of groupoids as there are mathematicians working on them. Following this principle, I will propose yet another generalisation, which I think is important for quantum mechanics.

George C ELLIOT

Title: 'Invariants for C^*-algebras'

Abstract
For a certain class of simple C^*-algebras, the amenable ones, very simple invariants of a K-theoretical nature could contain complete information (much as in the case for amenable von Neumann algebras). This is also known to be the case in other interesting examples.

Gary EVANS

Title: 'The operations of direct sum and tensor product on the K-homology groups $K_0(BU(N))$'

Abstract
The direct sum map

$$\oplus : U(n) \times U(m) \to U(n + m)$$

and the tensor map

$$\otimes : U(n) \times U(m) \to U(nm)$$

induce maps

$$\oplus_* : K_0(BU(n)) \otimes K_0(BU(m)) \to K_0(BU(n + m))$$

and

$$\otimes_* : K_0(BU(n)) \otimes K_0(BU(m)) \to K_0(BU(nm)).$$

We shall describe these maps algebraically.

Paul GOLDSTEIN

Title: 'Cuntz-Krieger C^*-algebras'

Abstract
A class of C^*-algebras, Cuntz-Krieger algebras associated to square matrices with entries in $\{0, 1\}$, will be defined.
A Cuntz-Krieger algebra 0_A, where A is an $n \times n$ $\{0, 1\}$-matrix, is a C^*-algebra generated by n partial isometries that satisfy certain relations given by A. It will be shown that the algebra 0_A is simple if the matrix A satisfies certain conditions. One the other hand, algebras 0_A arise naturally as algebras associated to certain graphs; this will be shown via examples.

Lee HAWKINS

Title: 'Macdonald modules for Weyl groups'

Abstract
Recent work at Aberystwyth concerning the construction of irreducible representations of Weyl groups has led to the consideration of the links between these constructions and those of Macdonald.

Prof John HOWIE

Title: 'Combinatorial aspects of transformation semigroups'

Abstract
The detailed study of the full transformation semigroups (the semigroup of all selfmaps of a finite set), and of related semigroups gives rise to questions of a combinatorial nature. Some progress has been made in answering these questions, and the methods involve an appealing mix of algebraic and combinatorial reasoning.

Title: 'Arithmetical questions arising from a semigroup embedding theorem'

Abstract
It is know that every finite semigroup S is embeddable in a finite semigroup T generated by idempotents. If we know the order of S, how large does T have to be? The investigation of this question leads to an arithmetical function

$$q(n) = min\{(r + 1)(s + 1) : rs \geq n\}$$

with interesting properties.

Prof Martin HUXLEY

Title: 'Some problems in which a curve is approximated by a polygon'

Abstract

There is a group of problems in number theory and analysis which can be tackled by approximating a given curve by a polygon whose sides have rational gradients. They range from: How many integer points lie on a curve of given length? to: What is the growth of the L-series associated to a modular form (for $SL(2,\mathbb{R})$ over $SL(2,\mathbb{Z})$ say)?

Andrew JONES

Title: 'Young and Nazarov Symmetrizers'

Abstract

Young's symmetrizers for the ordinary representations of the symmetric group and developments in the projective case will be discussed.

Debbie KRAUS

Title: 'Another class-breadth problem for finite p-groups'

Abstract

C. Leedham-Green, P. M. Neumann and James Wiegold proved in 1969 that the nilpotency class c of a finite p-group and the size p^b of the largest conjugacy class of elements (b is the *breadth* of G) are connected by the inequality $c < (pb/(p-1)+1)$. They conjectured that $c \leq b + 1$ in all cases: this was proved false in 1981 for 2-groups by Felsch, Neubüser and Plesken. Conjecture: Let G be a finite p-group in which every subgroup has at most p^s conjugates. Then $c < s + 2$. This problem will be considered in our talk.

Max L NAZAROV

Title: 'Irreducible finite-dimensional representations of the degenerate affine Hecke algebra and the fusion process'

Abstract

We shall describe an explicit multiplicative formula for Young and Cherednik symmetrizers.

Ross STREET

Title: 'String diagrams and tensor categories'

Abstract

Penrose's string notation for tensor calculations in relativity can be adapted to categories with properly axiomatised tensor product constructions. This can be put on a firm topological foundation, so that string diagrams provide rigorous proofs in those categories, and conversely, tensor categories have implications for string and knot theory.

Sir Peter SWINNERTON-DYER

Title: 'The Falkner-Skan equation $y''' + yy'' + \lambda(1 - y'^2) = 0$'

Abstract

The Falkner-Skan equation was originally studied in relation to a boundary-layer problem in fluid dynamics. More recently it has been considered simply as an interesting non-linear differential equation, and it is that point of view which I shall adopt. We take the parameter λ to be positive (which is the more interesting case) and ask what qualitative changes happen as λ increases.

It is standard to ask about periodic solutions. It is known that there are no periodic solutions for $0 < \lambda \leq 1$ and exactly one for $1 \leq \lambda < 2$. Numerical evidence suggests that an infinity of new periodic solutions are created every time λ increases through an integer $n > 1$. The fact that the critical values are integers leads one to hope that this can be proved: as indeed it can, once one identifies which of the many properties of integers it depends on. Moreover, one can nearly describe the set of periodic orbits which come into existence as λ increases through n, and can show that all of them have y', y'', y''' all $O(1)$ and

$$| \text{Max } y | \sim C_n (\lambda - n)^{-\frac{1}{2}n} \sim | \text{Min } y |$$

for a known constant C_n.

For most nonlinear differential equations the right strange invariant set to study is the closure of the set of periodic orbits. That is not so here; what one needs to study is the set of trajectories for which y' is bounded, and among these the fundamental building blocks turn out to be the trajectories for which $|y| \to \infty$ as $x \to \pm\infty$.

We also consider what happens to periodic orbits as λ increases. It turns out that, with exactly one exception, each of them eventually disappears. A great deal is known about this process, but there are some aspects which are still unclear.

Andy TONKS

Title: 'Small models for homotopy colimits'

Abstract

The classical Eilenberg-Zilber theorem for chain complexes is an example of how cartesian products may be replaced (up to strong deformation retraction) by tensor products when working in a more algebraic situation than simplicial sets. The fundamental geometrical idea is that of approximating to the diagonal cells. We will discuss the consequences of this idea in defining the notion of homotopy colimits in such algebraic categories. Most of the discussion will be focused on the example of finding small algebraic resolutions for extensions of groups.

SCHOOL OF MATHEMATICS
Head of School Professor C. Hooley ScD FRS

University of Wales College of Cardiff
School of Mathematics
Senghenydd Road,
Cardiff CF2 4AG
Fax (0222) 874199 Telex 498635
☎ (0222) 874813

18 April 1994

Dear *Professor Truman*,

Gregynog Pure Mathematics Colloquium 1994

This year's colloquium will take place from Friday 13 May to Sunday 15 May, and will follow the same pattern as last year, with the first talk at 6.00 p.m. on 13 May. The invited speakers will be Professor Allan Sinclair from the University of Edinburgh, who will talk on *Hochschild cohomology of von Neumann algebras*, and Professor James Howie from Heriot-Watt University, who will talk on *LOGs, higher knots, and multipliers*, and *Triangle groups and their generalizations*.

In addition there will be one main speaker from each college who will talk for from 40 to 45 minutes, and one or two graduate students from each college who will talk for 20 minutes each.

I should appreciate the following information, by 29 April if possible:

    1. A list of all participants from your college; please indicate whether Staff, Research Associate, Visitor or Research Student, and state any special dietary or other requirements.

    2. The name of a speaker prepared to give a 45 minute talk, together with a title and a brief abstract.

    3. The names of up to two research students prepared to give 20 minute talks on their research, together with titles and brief abstracts.

I should also like to have the names of one or two volunteers who would be prepared to chair one of the sessions.

Yours sincerely

John Rigby

J. F. Rigby

Dear Colleague,

Please let me know by Wednesday, 27 April, whether or not (a) you will attend the above colloquium,
    (b) give a 45 minute talk,
    (c) your research student will give a 20 minute talk.

PRIFYSGOL CYMRU
CYNHADLEDD MATHEMATEG PUR GREGYNOG 1994
Gwener 13 Mai hyd Sul 15 Mai

UNIVERSITY OF WALES
GREGYNOG PURE MATHEMATICS COLLOQUIUM 1994
Friday 13 May to Sunday 15 May

PARTICIPANTS

INVITED SPEAKERS

Prof James Howie (Heriot-Watt University)
Prof Allan Sinclair (University of Edinburgh)

ABERYSTWYTH

Staff

Prof & Mrs Alun Morris
Prof Noel Lloyd
Dr C Fletcher
Mr M John
Dr V Mavron
Dr J Gould
Dr T McDonough
Dr M Kelbert
Dr K Rowlands

Research students

Lee Hawkins
Andrew Jones

BANGOR

Staff

Dr M V Lawson
Dr T Porter

Research fellow

Dr W Dreckmann

Research student

Peter Hines

SWANSEA

Staff

Prof & Mrs D E Evans and family
Prof & Mrs J D Weston
Dr E J Beggs
Dr F W Clarke
Dr M T McGregor
Dr H P Rogosinski

Research assistant

Dr A Recknagel

Visitors

Prof M Shubin (Northwestern)
Dr R Nest (Copenhagen)
Dr V G Turaev (Strasbourg)

Research students

John Felton
Paul Goldstein
Peter Johnson

CARDIFF

Staff

Dr J F Rigby

Research students

Ahmet Dell
Ahmad Erfanian
Guido Pinkernel

PROGRAMME

Friday 13 May

4.00		Tea
5.45 -	6.35	Prof J D Weston (Swansea)
		Quaternions and miniquaternions
7.00		Dinner
8.00 -	8.50	Dr J F Rigby (Cardiff)
		Precise and perfect colourings of hyperbolic tilings

Saturday 14 May

8.15 -	9.00	Breakfast
9.05 -	10.05	Prof Allan Sinclair (Edinburgh)
		Hochschild cohomology of von Neumann algebras
10.10 -	10.55	Dr V Mavron (Aberystwyth)
		Latin squares and nets
11.00		Coffee
11.30 -	12.30	Prof James Howie (Heriot-Watt)
		LOGs, higher knots, and multipliers
1.00		Lunch
2.00 -	4.00	Informal discussions
4.00		Tea
5.00 -	5.25	Mr Guido Pinkernel (Cardiff)
		Notes on S C Chou's Pascal-Conic theorems
5.30 -	5.55	Mr Peter Hines (Bangor)
		Racks, quandles, and their uses in knot theory
6.00 -	6.25	Mr Ahmad Erfanian (Cardiff)
		A problem on growth sequences of groups
7.00		Dinner
8.00 -	8.50	Prof M Shubin (Swansea and Northwestern)
		Semiclassical asymptotics of von Neumann spectra and Morse inequalities

Because some participants will be leaving after dinner on Saturday, the General Meeting will be held at a time to be announced later

Sunday 15 May

8.15 -	9.00	Breakfast
9.05 -	10.05	Prof Allan Sinclair
		Hochschild cohomology of von Neumann algebras (continued)
10.10 -	10.55	Dr Winfied Dreckmann (Bangor)
		Polynomial functors
11.00		Coffee
11.30 -	12.30	Prof James Howie
		Triangle groups and their generalizations
12.45		Lunch

Please note that ALL LECTURES THIS YEAR WILL BE HELD IN SEMINAR ROOM 2

University of Wales
Pure Mathematics Colloquium 1995

Invited Speakers

Professor M.Dadarlat (Purdue)
Professor S.K.Donaldson (Oxford)
Dr J.D.S. Jones (Warwick)
Professor S.P.Smith (Seattle)

Aberystwyth

Dr V. Mavron

Bangor

Professor R Brown
Dr C Wensley
Dr M V Lawson
Prof & Mrs I.M. James

Research Students
Mr P. Hines
Mr I. Icen
Mr M. Alp
Mr A. Mutlu

Cardiff

Prof V. Burenkov
Dr J.F.Rigby
Dr H. Smith
Dr G.Cutolo

Research Students
Mr M Baker
Miss D. Kraus
Mr A. Delil
Miss N.Vaz

Swansea

Professor D.E.Evans
Dr E.J.Beggs
Dr F.W.Clarke
Dr T.C.Dorlas
Dr M. Kelbert
Dr H.Zhao
Professor J.T.Lewis
Professor J.D. Weston

Research Students
Mr F.R. Al-Solamy
Miss M. Darus
Mr M. Gabriel
Mr P. Goldstein
Mr P. Johnson

University of Wales Gregynog

Pure Mathematics Colloquium 1995

Tuesday 30 May

4.00	Tea
5.00 - 5.25	Peter Hines (Bangor) Representations of polycyclic inverse monoids
5.30 - 5.55	Peter Johnson (Swansea) Quantum soliton scattering matrices in 2D integrable models
6.00 - 6.25	Ilhan Icen (Bangor) Towards 2-dimensional holonomy groupoids: automorphisms of crossed modules and groupoids
7.00	Dinner

Wednesday 31 May

8.15 - 9.00	Breakfast
9.00 - 10.00	Paul Smith (Seattle) Non-commutative algebraic geometry
10.10 - 11.00	Victor Burenkov (Cardiff and Moscow) Weighted Hardy-type inequalities for differences with applications to the extension and compact embedding problems.
11.00 - 11.30	Coffee
11.30 - 12.30	John Lewis (Dublin & Swansea) Entropy, Concentration of Probability and Conditional Limit Theorems
1.00	Lunch
4.00	Tea
5.15 - 6.15	Simon Donaldson (Oxford) Some developments in symplectic geometry
6.30	Dinner
7.00 - 8.30	Wales v New Zealand
8.30	AGM

Thursday 1 June

8.15 - 9.00   Breakfast

9.00 - 10.00   Marius Dadarlat (Purdue)
               Topological invariants of C*-algebras

10.10 - 11.00 Mark Lawson (Bangor).
               Constructing inverse semigroups from category actions

11.00 - 11.30 Coffee

11.30 - 12.30 John Jones (Warwick)

1.00   Lunch

PURE MATHEMATICS COLLOQUIUM
GREGYNOG 18-20 May, 1992

LIST OF SPEAKERS

Guest Speakers:	Prof N J Hitchin Dr C Series
Aberystwyth:	Prof A O Morris (Monday night only) Dr C R Fletcher Dr T P McDonough Dr V C Mavron Dr K Rowlands (Tuesday night only) Dr K Rowlands
Research Associates:	Dr C Christopher Dr J Devlin
Research Student:	D White
Bangor:	Prof R Brown Dr N T Nhu Dr T Porter Dr C D Wensley Dr M Pfenniger Dr C Donazar Dr M V Lawson
Visitors:	Prof and Mrs I M James (Leaving Tuesday before lunch)
Research Students:	P Ehlers A Tonks O Mocuk Z Arvansi I Igan
Cardiff:	Prof J Wiegold Dr J F Rigby
Visitor:	Prof H Smith
Research Associates:	Dr L Pick Dr N Watt
Research Student:	Miss D Kraus
Swansea:	Prof D Evans Prof J D Weston Dr E J Beggs Dr F W Clarke Dr R J Cook Dr C N Linden Dr H P Rogosinski Dr G V Wood
Visitor:	Prof Kawihagashi
Research Students:	Miss J Atkinson G Evans R Evans

UNIVERSITY OF WALES   PRIFYSGOL CYMRU

PURE MATHEMATICS COLLOQUIUM

GREGYNOG 18-20 May, 1992

Monday, 18 May

7pm	Dinner
8.00-8.45pm	Prof I M James FRS (Oxford and Bangor) *(Title to be announced.)*

Tuesday, 19 May

8.15-9.00am	Breakfast
9.15-10.15am	Prof N J Hitchin FRS (Warwick) *Algebraic Geometry and the Painlevé Equations I*
10.20-10.55am	Dr F W Clarke (Swansea) *The Universal Bernouilli Numbers*
11am	Coffee
11.30-12.30am	Dr C Series (Warwick) *Deforming Kleinian Groups: an example I*
1.00pm	Lunch
	Afternoon free
4.00pm	Tea
5.00-5.40	Dr K Rowlands (Aberystwyth) *Arens Semi-regular Banach Algebras*
5.50-6.30	Dr M Pfenniger (Bangor) *On the Hypotheses which Underlie Algebraic Topology*
7.00pm	Dinner
8.00pm	General Meeting

Wednesday 20 May

8.15-9.00am	Breakfast
9.10-10.10am	Prof N J Hitchin FRS *Algebraic Geometry and the Painlevé Equations II*
10.15-10.55am	Prof H Smith (Bucknell University, Pennsylvania and Cardiff) *An Application of Ramsey's Theorem in Infinite Group Theory*
11.00am	Coffee
11.30-12.30am	Dr C Series *Deforming Kleinian Groups: an example II*
12.45am	Lunch

Participants
Pure Mathematics Colloquium
Gregynog
May 20-22, 1996

Guests:
Professor T Gannon (York, Ont; Max Planck, Bonn)
Professor G D James (Imperial College, London)
Professor I M James FRS (Oxford)
Professor G Malle (Heidelberg)
Professor N Ray (Manchester)
Professor H Siedentop (Oslo)
Professor D H Smith (Glamorgan)
Professor Sir Peter Swinnerton-Dyer, FRS (Cambridge)

Aberystwyth
Professor N G Lloyd
Professor A O Morris
Dr C R Fletcher
Dr T P McDonough
Dr V C Mavron
Dr K Rowlands

Visitors:
Dr C Barop
Dr M Hughes (King Edward College, Nuneaton)
Dr C Pallikaros (Cyprus)

Postgraduates:
Mr M Al-Solbi
Mrs J Andrews
Mr M O Almestady
Mr P Mwamba

Bangor
Professor R Brown
Dr M V Lawson
Mr I Morris
Dr C D Wensley

Visitors:
Dr T Bisson and Dr M Bisson (Canesius, New York)
Dr D Dimovski (Skopje)
Professor and Mrs M M Postnikov (Steklov Institute, Moscow)

Posgraduates:
Ms A Heyworth
Mr P Hines
Mr

Cardiff	Professor V I Burenkov and Dr T Tararykova
	Professor W D Evans
	Professor J Wiegold
	Dr L J Barker
	Dr M Brown
	Dr D Harris
	Dr A A Ilyim
	Dr J F Rigby
Posgraduates:	Mr A Delil
	Miss N Yaz
	Mr K C Wong
Swansea	Professor D E Evans
	Professor A Truman
	Dr E J Beggs
	Dr F Boca and Miss I Boca
	Dr F W Clarke
	Dr R J Cook
	Dr T C Dorlas
	Dr A Jones
	Dr M T McGregor
	Dr H P Rogosinski
	Dr Mark Kelbert
	Dr Tomaso Isola
Postgraduates:	Mr F Al-Solamy
	Mr M Gabriel
	Mr P Goldstein
	Mr C Pierce
	Miss S Pianskool
	Mr L Runcon Solis
	Mr B Smit

D.EE.

Gregynog Colloquium

The 1996 University of Wales Pure Mathematics Colloquium
will be held at Gregynog on 20 - 22 May. Invited speakers
include George A. Elliott (Copenhagen),
Gordon James (Imperial College),Gunter Malle (Heidelberg), Nigel Ray
(Manchester),Heinz Siedentop (Oslo) and Peter Swinnerton-Dyer (Cambridge).
Further information may be obtained from Vass Mavron (Aberystwyth).
The meeting is supported by the London Mathematical Society and by the
University of Wales Collaborative fund.

Please let me know as soon as possible whether
or not you will attend the Colloquium

M-T. McGregor

Prifysgol Cymru/University of Wales
Pure Mathematics Colloquium
Gregynog, May 20-22, 1996

Programme

Monday
	4.00	Tea
	5.40 - 6.20	Dr C D Wensley (Bangor)
		'Implementing new structures in GAP'
	7.00	Dinner
	8.00 - 9.00	Professor Gordon James (Imperial College, London)
		'How the Hecke symmetric groups represented?'

Tuesday
	8.10 - 9.00	Breakfast
	9.05 - 10.00	Professor Nigel Ray (Manchester)
		'Applications of Combinatorics to Geometry and Topology I'
	10.05 - 11.00	Professor Gordon James (Imperial College, London)
		'Immanant problems, no solutions imminent'
	11.00	Coffee
	11.30 - 12.25	Professor Heinz Siedentop (Oslo)
		'A relativistic HWZ theorem'
	1.00	Lunch

Afternoon Free

	4.00	Tea
	5.00 - 5.40	Dr Laurence Barker (Cardiff)
		'Defects of irreducible characters'
	5.45 - 6.40	Dr Gunter Malle (Heidelberg)
		'Complex Reflection Groups and Braid Groups'
	7.00	Dinner
	8.00	AGM

Wednesday
	8.10 - 9.00	Breakfast
	9.05 - 10.00	Professor Nigel Ray (Manchester)
		'Applications of Combinatorics to Geometry and Topology II'
	10.05 - 11.00	Professor Terry Gannon (York, Ontario and Max Planck, Bonn)
		'The classification of conformal field theories'
	11.00	Coffee
	11.30 - 12.25	Professor Sir Peter Swinnerton-Dyer FRS (Cambridge)
		'Some 3rd Order Differential Equations'
	1.00	Lunch

12.45

Date: Fri, 21 Mar 1997 19:25:46 GMT
From: "G.W.Roberts" <g.w.roberts@bangor.ac.uk>
To: I.M.Davies@swansea.ac.uk, ard@aber.ac.uk, Hindmarsh@cardiff.ac.uk
Subject: Gregynog 1997

Dear Ian, Russell and Jim,

GREGYNOG APPLIED MATHEMATICS COLLOQUIUM 1997
===

Date: Wednesday 21 May to Friday 23 May

Guest Speaker: John Ockendon, Oxford

Theme: industrial mathematics

The new bureacratic rules for colloquia at Gregynog insist that a detailed
programme is submitted at least six weeks before the event.

Please give me a list of attendees and talks from your department by April 7
at the latest. The more the merrier - the provisional booking specified 46
attendees.

Best wishes,
   Gareth.

--
Dr G W Roberts   Dr G W Roberts
Ysgol Mathemateg   School of Mathematics
Prifysgol Cymru   University of Wales
Stryd y Deon   Dean Street
Bangor   Bangor
Gwynedd   Gwynedd
LL57 1UT   LL57 1UT
DU   UK

Email: G.W.Roberts@bangor.ac.uk
Tel: +44 (0)1248 382480
Ffacs: +44 (0)1248 383663
WWW: http://www.bangor.ac.uk/ma