

LMS Durham Symposium on
Analytic and Geometric Aspects of Hyperbolic Space
Sunday 4th July - Sunday 11th July 1993

THIRD ANNOUNCEMENT
PROGRAMME - MONDAY 5th JULY

- CG93 9.15 a.m. - 10.00 a.m. F. Paulin - *On outer automorphisms of hyperbolic groups.*
- CG93 10.15 a.m. - 11.00 a.m. M. Lustig - *An algorithm for conjugacy of irreducible automorphisms of free groups.*
- 11.00 a.m. COFFEE - Room CM211
- CG93 11.45 a.m. - 12.30 p.m. G. Levitt - *The rank of actions on R-trees.*
- 1.00 p.m. LUNCH Grey College
- CG93 2.15 p.m. - 3.00 p.m. R. Canary - *Covering theorems for hyperbolic 3-manifolds.*
- CG93 3.15 p.m. - 4.00 p.m. Y. Minsky - *Rigidity and ending laminations for kleinian groups.*
- 4.00 p.m. TEA - Room CM211
- CG93 4.30 p.m. - 5.30 p.m. R. Brooks - *Spectral geometry of hyperbolic manifolds.*
- 6.30 p.m. Sherry Reception - JCR
- 7.00 p.m. DINNER Grey College

PROGRAMME - TUESDAY 6th JULY

- CG93 9.15 a.m. - 10.00 a.m. A. Zeghib - *Geodesic hypersurfaces in hyperbolic manifolds.*
- CG93 10.15 a.m. - 11.00 a.m. S. Fenley - *Anosov flows on 3-manifolds.*
- 11.00 a.m. COFFEE - Room CM211
- CG93 11.45 a.m. - 12.30 p.m. D. Gabai - *Homotopy equivalences and compact hyperbolic 3-manifold.*
- 1.00 p.m. LUNCH Grey College
- 2.00 p.m. PHOTOGRAPH Grey College Steps
- CG93 2.15 p.m. - 3.00 p.m. M. Rees - *First and second derivative of the Teichmüller distance function for marked spheres.*
- CM101 3.15 p.m. - 4.00 p.m. S. Krushkal (in parallel) - *Polynomial convexity and approximation of Teichmüller spaces.*
- CM107 3.15 p.m. - 4.00 p.m. A. Papadopoulos (in parallel) - *Affine foliations and broken hyperbolic structures on surfaces.*
- 4.00 p.m. TEA - Room CM211
- CG93 4.30 p.m. - 5.30 p.m. H. Masur - *A random walk in Teichmüller space and the Furstenberg boundary of Teichmüller space..*
- 7.00 p.m. DINNER Grey College

PROGRAMME - WEDNESDAY 7th JULY

- CM101 9.15 a.m. - 10.00 a.m. J. Velling (in parallel) - *Constant mean curvature surfaces at infinity of H^3 .*
- CM107 9.15 a.m. - 10.00 a.m. W. Harvey (in parallel) - *Finite area hyperbolic surfaces in moduli spaces.*
- CM101 10.15 a.m. - 11.00 a.m. D. Singerman (in parallel) - *Discrete groups and real curves.*
- CM107 10.15 a.m. - 11.00 a.m. K. Matsuzaki (in parallel) - *Structural stability of kleinian groups with torsion.*
- 11.00 a.m. **COFFEE - Room CM211**
- CM101 11.45 a.m. - 12.30 p.m. I. Kra (in parallel) - *Automorphic forms.*
- CM107 11.45 a.m. - 12.30 p.m. B. Bowditch (in parallel) - *Geometry of convex hulls.*
- 1.00 p.m. **LUNCH Grey College**
- CG93 2.15 p.m. - 3.00 p.m. I. Rivin - *Deformations of singular hyperbolic and euclidean structures.*
- CG93 3.15 p.m. - 4.00 p.m. C. Hodgson - *Harmonic deformations of cone manifolds I.*
- 4.00 p.m. **TEA - Room CM211**
- CG93 4.30 p.m. - 5.30 p.m. S. Kerckhoff - *Harmonic deformations of cone manifolds II.*
- 7.00 p.m. **DINNER Grey College**

PROGRAMME - THURSDAY 8th JULY

- CM101 9.15 a.m. - 10.00 a.m. L. Keen/J. Parker (in parallel) - *Teichmüller space for the twice punctured torus.*
- CM107 9.15 a.m. - 10.00 a.m. M. Macbeath (in parallel) - *Unified plane crystallography.*
- CM101 10.15 a.m. - 11.00 a.m. D. Griffiths (in parallel) - *Towards a geometrical presentation for the mapping class group in genus two.*
- CM107 10.15 a.m. - 11.00 a.m. R. Sharp (in parallel) - *Orbit counting for some discrete groups acting on hyperbolic spaces.*
- 11.00 a.m. **COFFEE - Room CM211**
- CM101 11.45 a.m. - 12.30 p.m. C. Penrose (in parallel) - *Limit sets for correspondences.*
- CM107 11.45 a.m. - 12.30 p.m. P. Schmutz (in parallel) - *Congruence subgroups and maximal Riemann surfaces.*
- 1.00 p.m. **LUNCH Grey College**
- Afternoon: **Durham Cathedral - depart Grey College 2.00 p.m.**
- 7.00 p.m. **DINNER Grey College**

PROGRAMME - FRIDAY 9th JULY

- CG93 9.15 a.m. - 10.00 a.m. A. Basmajian - *Generalizing the collar lemma.*
- CG93 10.15 a.m. - 11.00 a.m. J. Anderson - *Quasi-fuchsian subgroups of kleinian groups.*
- 11.00 a.m. **COFFEE - Room CM211**
- CM101 11.45 a.m. - 12.30 p.m. C. Maclachlan (in parallel) - *Arithmetic hyperbolic surface bundles.*
- CM107 11.45 a.m. - 12.30 p.m. K. Fujiwara (in parallel) - *"Free products of with amalgamation word hyperbolic groups".*
- 1.00 p.m. **LUNCH Grey College**
- CG93 2.15 p.m. - 3.00 p.m. M. Culler - *Volumes of hyperbolic 3-manifolds I.*
- CG93 3.15 p.m. - 4.00 p.m. F. Gehring/G. Martin - *Geometric constraints for kleinian groups.*
- 4.00 p.m. **TEA - Room CM211**
- CG93 4.30 p.m. - 5.30 p.m. P. Shalen - *Volumes of hyperbolic 3-manifolds II.*
- 7.00 p.m. **SPECIAL DINNER Grey College**

PROGRAMME - SATURDAY 10th JULY

- CG93 9.15 a.m. - 10.00 a.m. M. Lyubich - *New points of local connectivity of the Mandelbrot set.*
- CG93 10.15 a.m. - 11.15 a.m. L. Mosher - *Spaces which are not negatively curved.*
- 11.00 a.m. **COFFEE Room - CM211**
- CG93 11.45 a.m. - 12.45 p.m. G. Mess - *Retrospective on the Seifert fibre space conjecture and groups coarse quasi-isometric to the hyperbolic plane.*
- 1.00 p.m. **LUNCH Grey College**