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0521435293 - Geometric Group Theory: Proceedings of the Symposium held in Sussex 1991,
Volume 1

Edited by Graham. A. Niblo and Martin A. Roller

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London Mathematical Society Lecture Note Series. 181

Geometric Group Theory

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1991

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Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo

Cambridge University Press

The Edinburgh Building, Cambridge CB2 2RU, UK

Published in the United States of America by Cambridge University Press, New York

www.cambridge.org

Information on this title: www.cambridge.org/9780521435291

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First published 1993

A catalogue record for this publication is available from the British Library

ISBN-13 978-0-521-43529-1 paperback

ISBN-10 0-521-43529-3 paperback

Transferred to digital printing 2005

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Preface

In the summer of 1991 geometric group theorists gathered in Sussex for the Geometric Group Theory Symposium. For the first two weeks of July they met at the Workshop session in Sussex University, where they took part in informal research seminars. There were 35 talks, including a course on the theory of racks by Roger Fenn and a series of lectures on semi-hyperbolic groups by Martin Bridson. This culminated in a London Mathematical Society Spitalfields Lecture day, with talks by Alan Beardon, Walter Neumann and Hyman Bass.

During the third week the residential conference took place at the White House Conference Centre in Chelwood Gate. There was a total of 40 talks, including four lectures by Eliahu Rips on his classification of groups acting freely on \mathbb{R} -trees and two lectures by Andrew Casson on convergence groups and his proof of the Seifert conjecture.

We had asked the participants of the conference to survey their special field of interest. About half of the papers in the first volume of these proceedings are of this nature, and we hope this will provide a good overview of the state of the art of geometric group theory at the time of the conference. In particular, Michael Gromov's response to our request was so enthusiastic, that we decided to dedicate the entire second volume to his essay *Asymptotic Invariants of Infinite Groups*. The remainder of the articles are either extended versions of papers given at the conference or answers to questions posed there.

The first volume is concluded by a list of problems suggested at the Geometric Group Theory Symposium. Most were written up in the coffee lounge throughout the workshop and conference sessions, and were discussed at length by the Falmer Pub Research Group. The editors would like to express their thanks to Steve Gersten, who chaired the Problem Session at the conference with his customary good humour, and to Swarup, who faithfully recorded the discussions.

In editing these proceedings we have tried to produce some uniformity while respecting the authors' individuality. We of course accept full responsibility for any inconsistencies or errors introduced by our interference.

It is a pleasure to thank all the people who helped us in preparing and running

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the conference. Christine Coles assisted us enthusiastically from an early stage, David Epstein encouraged and advised us, and Martin Dunwoody and Swarup gave us valuable support during the conference. We would also like to thank the principal speakers whose enthusiasm, and willingness to commit themselves to the project at the beginning ensured its success.

The following provided generous financial support: Wolfram Research sponsored a demonstration of Mathematica; the London Mathematical Society funded the Spitalfields Lectures; the Science and Engineering Research Council, whose generous grant (Grant No. GR/G 35572) made the Symposium possible.

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