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978-0-521-28146-1 - Low-Dimensional Topology: Volume 1 of the Proceedings of the Conference on Topology in Low Dimension, Banger, 1979

Edited by R. Brown and T. L. Thickstun

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Low-Dimensional Topology

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on Topology in Low Dimension, Bangor, 1979

Edited by

R. BROWN and T.L. THICKSTUN

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Dedication

The Conference was dedicated to Peter Stefan, Lecturer at the University College of North Wales, who fell to his death in June 1978, while climbing by himself on Tryfan. He was known to most of the participants from Britain, and to many from France owing to his leave of absence at the Institut des Hautes Études, Bures-sur-Yvette, in 1976/7. He had been a prime mover in obtaining (with K. Brown) support for Tom Thickstun for research in 3-manifolds at Bangor, and the idea for this conference had been agreed between us before his death.

A survey of his work is given in the Obituary notice in the Bulletin London Math. Soc. 13 (1981) 170-172.

Acknowledgements

We are grateful to:

The London Mathematical Society, who accepted fully our request for partial financial support of the Conference, and under whose auspices this book is appearing.

Dr. G.P. Scott, who formed, with the Editors, the Organising Committee of the Conference.

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Dr. F.M. Burrows, for his artistic skills in the illustrations.

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Preface

A conference on *Low Dimensional Topology* was held at the University College of North Wales, Bangor, on July 2-5, 1979, with 63 participants.

Four principal speakers were invited:

W. Thurston gave four lectures on "Hyperbolic geometry and 3-manifolds" and one lecture on "The Smith conjecture".

A. Casson gave one lecture on "Bordisms of automorphisms of surfaces" and two lectures on "Fake $S^3 \times \mathbb{R}$ ".

R.D. Edwards gave three lectures on "The double suspension of homology 3-spheres".

L. Siebenmann gave two lectures on "Fake $S^3 \times \mathbb{R}$ " and one lecture on "Algebraic knots".

The articles of this volume were either presented to the conference, or arose out of it. All were refereed.

Of the lectures of the principal speakers, only those of *W. Thurston* appear here. The notes were written up by Peter Scott, and we asked him to write a brief survey as an introduction.

The four lectures on fake $S^3 \times \mathbb{R}$ correspond to a Séminaire Bourbaki exposé (February 1979, No. 576) by Siebenmann, based on *A. Casson's* work and *M. Freedman's* article in *Annals of Math.* 110 (1979) 177-201.

L. Siebenmann's lecture on algebraic knots was an introduction to material in a monograph entitled "New geometric splittings of classical knots" written jointly with *F. Bonahon*, which will appear shortly in this series, indeed as a second volume of these proceedings.

Peter Stefan's work on Whitehead's conjecture in 1978 has been a stimulus to subsequent research, and we felt his seminal letter of May, 1978, should be published. The article by *R. Brown* and *J. Huebschmann* grew out of an attempt to give the complete background for understanding this letter.

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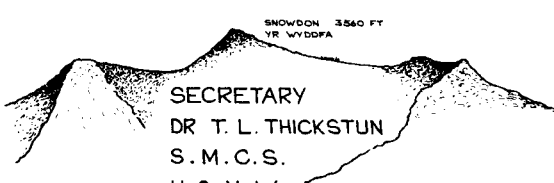
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