# CONTEMPORARY MATHEMATICS

# **Algebraic Topology**

Proceedings of the International Conference held March 21–24, 1988



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### **Algebraic Topology**

# GONTEMPORARY MATHEMATICS

Volume 96

## **Algebraic Topology**

Proceedings of the International Conference held March 21–24, 1988

Mark Mahowald and Stewart Priddy, Editors

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Providence - Rhode Island

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### Preface

The academic year 1987–88 was designated as an Emphasis Year in Algebraic Topology at Northwestern University. Supported by funds from the National Science Foundation and Northwestern, visitors from around the world came together throughout the year to discuss current developments. During the period March 21–24, 1988 a conference was held which attracted over 110 participants. Many of the plenary lectures were expository in nature, designed to expose current trends. This volume contains papers which were either presented or solicited at the conference. All papers were refereed.

We thank Mrs. Melanie Rubin for her fine secretarial support in assembling the volume. Several of the papers have been retyped in TeX and we are grateful to Lisa Tator for her fast and efficient efforts in this regard.

Mark Mahowald

Stewart Priddy

### Plenary Talk Titles

### International Conference on Algebraic Topology

### NORTHWESTERN UNIVERSITY

March 21-24, 1988

Gunnar Carlsson, Princeton University

"Homotopy fixed points and the assembly map for algebraic K-theory"

Ralph Cohen, Stanford University

"The homotopy type of the space of harmonic functions"

Dick Hain, University of Washington

"Hodge theory and algebraic K-theory"

Michael Hopkins, Princeton University

"p-adic Lie groups and stable homotopy groups"

Peter Landweber, Rutgers University

"Elliptic cohomology and elliptic genera"

Haynes Miller, MIT

"The elliptic character and Witten's genus"

Peter Shalen, University of Illinois at Chicago

"Recent developments in dendrology"

Takashi Tsuboi, University of Tokyo

"On the connectivity of classifying spaces of foliations"

Friedhelm Waldhausen, University of Bielefeld

"Brave new rings"

John Jones, Warwick University

"Loop spaces, cyclic homology and index theory"