

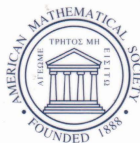
CONTEMPORARY MATHEMATICS

399

An Alpine Anthology of Homotopy Theory

Proceedings of the Second
Arolla Conference on Algebraic Topology
August 24–29, 2004
Arolla, Switzerland

Dominique Arlettaz
Kathryn Hess
Editors



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Participants in the Second Arolla Conference
on Algebraic Topology

Dedicated to the memory of Michel Matthey,
whose enthusiasm for mathematics and personal warmth will long be remembered.

Contents

Preface	ix
List of conference talks	xi
List of participants	xiii
A note on the homology of Σ_n , the Schwartz genus, and solving polynomial equations	
G. ARONE	1
A geometric construction of saturated fusion systems	
C. BROTO, R. LEVI, and B. OLIVER	11
The orthogonal subcategory problem in homotopy theory	
C. CASACUBERTA and B. CHORNY	41
Homotopy pull-back squares up to localization	
W. CHACHÓLSKI, W. PITSCH, and J. SCHERER	55
Traces and reduced group C^* -algebras	
I. CHATTERJI and G. MISLIN	73
Integral cohomology of 2-local Hopf spaces with at most two non-trivial finite homotopy groups	
A. CLÉMENT	87
On the double suspension and the mod- p Moore space	
B. GRAY and S. THERIAULT	101
Rational extended Mackey functors for the circle group	
J. GREENLEES and J.-PH. HOFFMANN	123
On the topological cyclic homology of the algebraic closure of a local field	
L. HESSELHOLT	133
Realizing Kasparov's KK -theory groups as the homotopy classes of maps of a Quillen model category	
M. JOACHIM and M. JOHNSON	163
Homology commutators and \mathcal{P}^1 actions	
J. LIN	199

Preface

The second Arolla conference on algebraic topology brought together specialists covering a wide range of homotopy theory and K -theory. These proceedings reflect both the variety of the talks given at the conference and the diversity of promising research directions in homotopy theory. The articles contained herein include contributions to classical unstable homotopy theory, model category theory, equivariant homotopy theory, and the homotopy theory of fusion systems, as well as to K -theory of both local fields and C^* -algebras.

We would like to thank the following institutions and organizations for their generous financial support in sponsoring the Arolla conference on algebraic topology:

Fonds national suisse de la recherche scientifique,
Fondation Herbette de l'Université de Lausanne,
Institut de géométrie, algèbre et topologie de l'Ecole
Polytechnique Fédérale de Lausanne,
Faculté des sciences de base de l'Ecole Polytechnique Fédérale
de Lausanne.

We would also like to express our heartfelt appreciation to the owners and personnel of the Hôtel Mont-Collon in Arolla for their warm hospitality and impeccable service during the conference.

Without the meticulous work of the referees, this proceedings volume could never have appeared. To these anonymous colleagues, we express our deep gratitude. We also thank Chris Thivierge at the AMS for her help and guidance.

Dominique Arlettaz
Kathryn Hess
October 2005

List of Conference Talks

Tuesday, August 24

Brayton Gray *Decomposition theory*
James Lin *Finite H -spaces that are not loop spaces*

Wednesday, August 25

Ran Levi *The homotopy theory of fusion systems*
Jesper Grodal *Root systems for 2-compact groups*
Stephen Theriault *Homotopy exponents of Lie groups of low rank*
Natalía Castellana *H -spaces with finitely generated cohomology
as algebras over the Steenrod algebra*
Jérôme Scherer *A cellular dichotomy*

Thursday, August 26

Brooke Shipley *K -theory and derived equivalences*
Stefan Schwede *Toda brackets and multiplications
on 2-cell complexes*
Sarah Whitehouse *Infinite sums of Adams operations*

Friday, August 27

Greg Arone *A curious construction on K -theory*
Mike Mandell *E_1, E_2, E_3, E_4*
Clemens Berger *The Barratt-Eccles operad
and its canonical filtration*
Ieke Moerdijk *Monoidal model categories
and the Boardman-Vogt resolution of operads*
Boris Chorny *Homotopy localizations
vs. ordinary localizations*

Saturday, August 28

Lars Hesselholt *On birelative algebraic K -theory*
Guido Mislin *Traces in K -theory of group C^* -algebras
and the Bass conjecture*
Christian Ausoni *On the algebraic K -theory of complex K -theory*
Holger Reich *Algebraic K -theory of group rings
and topological cyclic homology*
Nathalie Wahl *Mapping class groups in dimensions 2 and 3
and automorphisms of free groups*

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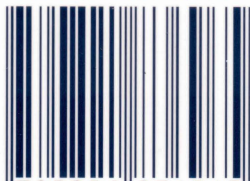
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