

Yves Félix • Stephen Halperin • Jean-Claude Thomas
Rational Homotopy Theory

While rational homotopy theory is remarkably computational and simpler than ordinary homotopy theory, it is exactly this simplicity that makes it possible to address a number of fundamental questions in geometry and homotopy theory. The three main objectives of this book are:

- to provide a coherent, self-contained, and user-friendly introduction to the tools and techniques of rational homotopy theory
- to provide an account of the main structural theorems with proofs that are often new or much simpler than the original versions in the literature
- to illustrate both the use of the mathematical technology and the consequences of the theorems in a rich variety of examples.

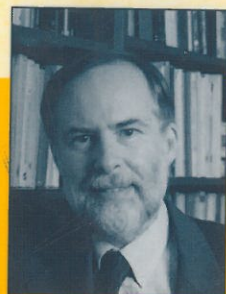
It should be emphasized that this book is about topological spaces and that examples and applications given throughout the book are largely drawn from topology. The reader should have a basic knowledge of the fundamental group and singular homology.

Yves Félix has been a member of the mathematics department of the Catholic University of Louvain at Louvain-La-Neuve since 1979 and president of the department since 1995. He has published 70 research articles and two research monographs.

After 30 years in the mathematics department at the University of Toronto, including a term as chair, Stephen Halperin joined the University of Maryland as professor and dean of the College of Computer, Mathematical and Physical Sciences. He has published over 60 research articles and a research monograph, and coauthored three graduate texts.

After 26 years in the mathematics department at the University of Lille, including a term as chair, Jean-Claude Thomas joined the University of Angers, where he is Professor. He has published over 50 research articles.

All three authors maintain active research programs in homotopy theory, particularly in rational homotopy theory and its applications to algebra and geometry.



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