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**Sullivan, Dennis P.****Geometric topology. Localization, periodicity and Galois symmetry. The 1970 MIT Notes. Edited by A. Ranicki.** (English)

K-Monographs in Mathematics 8. Dordrecht: Springer. xiv, 283 p. EUR 95.23; sFr. 150.50 (2005). [ISBN 1-4020-3511-X/hbk; ISBN 1-4020-3512-8/e-book]

The main part of the book consists of the 1970 MIT notes of the author about Localizations, Completions and applications to topology and algebraic geometry. This deserves historical interest. The reader should be aware that everything is presented before the work of A. K. Bousfield (several articles describing localizations), F. Adams (e.g. *Infinite loop spaces*) and H. R. Margolis (*Spectra and the Steenrod Algebra*) appeared. However, since these notes stood at the cradle of localization theory, it might be interesting how everything was handled 35 years ago. The attitude in which more modern authors refer to these notes (like F. Adams) is of some interest in itself.

At this time, there was planned a *part two* of these notes which never appeared, but this has a long tradition in the history of topological books (starting with Alexandroff - Hopf, Eilenberg - Steenrod, Godement, G.W. Whitehead). There are 6 chapters in these notes, under the title: 1. Algebraic constructions; 2. Homotopy theoretical localization; 3. Completions in homotopy theory; 4. Spherical fibrations; 5. Algebraic geometry; 6. The Galois group in geometric topology.

In addition, the present volume contains a reprint from the Proceedings of the 1970 ICM *Galois symmetry in manifold theory at the primes* as well as a *Postscript*, written in 2004, where the author not only presents his personal view of some developments in the field under consideration since these notes appeared (or better: did not appear but where distributed like a kind of *Western samisdat*, as the editor describes it). Every major event in this postscript is associated with the birth of another child of the author (starting with 1966, up to April 2002).

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- \*55-02 Research monographs (algebraic topology)
- 55-03 Historical (algebraic topology)
- 01A60 Mathematics in the 20th century
- 14-02 Research monographs (algebraic geometry)

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