

Dr. Steffen Sagave
Prof. Stefan Schwede
Summer term 2012

Graduate Seminar Advanced Topology S4D2 “Selected papers in homotopy theory”

Tuesday 14-16, room N 0.003

The idea of this seminar is that each participant will give one or two talks about a “classic” paper in homotopy theory or a related topic. By definition, “classic” refers to papers which have become influential because they solved important problems or laid the foundations for work of many other people. We included a list of suggestions for such papers. The pdf-file of this document can be found at <http://www.math.uni-bonn.de/people/sagave/> and contains links to the original publications (via the DOI) and reviews if available¹.

Schedule

- Talk 1, 03.04.2012:** *Clifford modules* [ABS64], Part I
Talk 2, 10.04.2012: *Clifford modules* [ABS64], Part II
Talk 3, 24.04.2012: *K-theory and reality* [Ati66], Part I
Talk 4, 08.05.2012: *K-theory and reality* [Ati66], Part II
Talk 5, 15.05.2012: *Semisimplicial spectra* [Kan63], Part I
Talk 6, 22.05.2012: *Semisimplicial spectra* [Kan63], Part II
Talk 7, 05.06.2012: *Smash products and Γ -spaces* [Lyd99], Part I
Talk 8, 12.06.2012: *Smash products and Γ -spaces* [Lyd99], Part II
Talk 9, 19.06.2012: *Homotopy colimits in the category of small categories* [Tho79], Part I
Talk 10, 03.07.2012: *Homotopy colimits in the category of small categories* [Tho79], Part II

References

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- [BCK⁺66] A. K. Bousfield, E. B. Curtis, D. M. Kan, D. G. Quillen, D. L. Rector, and J. W. Schlesinger, *The mod $- p$ lower central series and the Adams spectral sequence*, *Topology* **5** (1966), 331–342. DOI:10.1016/0040-9383(66)90024-3. MR0199862 (33 #8002)
- [Bök85] Marcel Bökstedt, *The topological Hochschild homology of \mathbb{Z} and \mathbb{F}_p* , 1985 and later. Unpublished manuscript, Bielefeld.
- [DT58] Albrecht Dold and René Thom, *Quasifaserungen und unendliche symmetrische Produkte*, *Ann. of Math. (2)* **67** (1958), 239–281. DOI:10.2307/1970005. MR0097062 (20 #3542)
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- [Dwy96] W. G. Dwyer, *Transfer maps for fibrations*, *Math. Proc. Cambridge Philos. Soc.* **120** (1996), no. 2, 221–235. DOI:10.1017/S0305004100074818. MR1384465 (97h:55014)

¹In most cases, the content is only accessible from computers within the university network.

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- [Kan63] Daniel M. Kan, *Semisimplicial spectra*, Illinois J. Math. **7** (1963), 463–478. MR0153017 (27 #2986)
- [Lyd99] Manos Lydakis, *Smash products and Γ -spaces*, Math. Proc. Cambridge Philos. Soc. **126** (1999), no. 2, 311–328. DOI:10.1017/S0305004198003260. MR1670245 (2000i:55049)
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- [Tho79] R. W. Thomason, *Homotopy colimits in the category of small categories*, Math. Proc. Cambridge Philos. Soc. **85** (1979), no. 1, 91–109. DOI:10.1017/S0305004100055535. MR510404 (80b:18015)