

Unstable homotopy groups

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参考文献

- [1] A. L. Blakers and W. S. Massey, The homotopy groups of a triad I, Ann. of Math. (2), **53** (1951), 161-205.
- [2] A. L. Blakers and W. S. Massey, Products in homotopy theory, Ann. of Math. (2), **58** (1953), 192-201.
- [3] B. Gray, On the homotopy groups of mapping cones, Proc. London Math. Soc., (3) **26** (1973), 497-520.
- [4] A. Hatcher, “Algebraic Topology”, Cambridge University Press, Cambridge, 2001.
- [5] I. M. James, On the homotopy groups of certain pairs and triads, Quart. J. Math. Oxford, (2) **5** (1954), 260-270.
- [6] I. M. James, on the suspension triad, Ann. of Math. (2), **63** (1956), 192-247.
- [7] H. Kachi and J. Mukai, Some homotopy groups of the rotation group R_n , Hiroshima Math. J. **29** (1999) 327-345.
- [8] M. Mimura and H. Toda, Homotopy Groups of $SU(3)$, $SU(4)$ and $Sp(2)$ J. Math. Kyoto Univ. **3** (1964) 217-250.
- [9] J. Mukai. On the attaching map in the Stiefel manifold of 2-frames. Math. J. Okayama Univ. **33** (1991), 177-188.
- [10] H. Toda, “Composition methods in homotopy groups of spheres”, Ann. of Math. Studies, **49** (1962), Princeton.
- [11] G. W. Whitehead, A generalization of the Hopf invariant, Ann. of Math. (2), **51** (1950) , 192-237.
- [12] G. W. Whitehead, “Elements of homotopy theory”, GTM. **61** (1978), Springer.

[4], [12] はホモトピー論についての教科書. [1], [2], [3], [5], [6], [11] はホモトピー群を計算する道具についての論文. [10] は球面のホモトピー群の計算についての本. [7], [8], [9] はリー群などのホモトピー群の計算についての論文です. また, 球面の安定ホモトピー群の計算については

D. C. Ravenel, “Complex cobordism and stable homotopy groups of spheres”, Academic press, New York, 1986.

Moore 空間のホモトピー群の計算については

- J. Mukai, Note on existence of the unstable Adams map, Kyushu J. Math., **49** (1995), 271-279.
 - J. Mukai, Generators of some homotopy groups of the mod 2 Moore space of dimension 3 or 5, Kyushu J. Math., **55** (2001), 63-73.
 - J. Wu, Homotopy theory of the suspension of the real projective plane, Memoirs AMS **162** (2003), No. 769.
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