

SOME \mathbb{Z}_2 -ACTIONS ON THE 3-SPHERE

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Abstract

In this article, we discuss some \mathbb{Z}_2 -actions on the 3-sphere and give triangulations of the action maps. We also discuss the corresponding quotient spaces by using simplicial complexes.

Keywords and phrases: group action, simplicial maps, simplicial complexes.

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References

- [1] P. A. Smith, Transformation of finite period, II, Ann. Math. 40 (1939), 690-711.
- [2] E. Bredon Glen, Introduction to Compact Transformation Groups, Academic Press, London, New York, 1972.
- [3] B. Datta, Minimal triangulations of manifolds, J. Indian Inst. Sci. 87 (2007), 429-449.
- [4] K. V. Madahar and K. S. Sarkaria, A minimal triangulation of the Hopf map and its application, Geom. Dedi. 105 (2000), 105-114.
- [5] K. V. Madahar and K. S. Sarkaria, Minimal simplicial self maps of the 2-sphere, Geom. Dedi. 84 (2001) 25-33.
- [6] K. V. Madahar, Simplicial branched coverings of the 3-sphere, Internat. J. Math. Combin. 3 (2012), 40-45.
- [7] K. V. Madahar, On Some Problems from Combinatorial Topology, VDM Publishers, 2010.
- [8] J. R. Munkres, Elements of Algebraic Topology, Addison-Wesley, 1984.
- [9] E. H. Spanier, Algebraic Topology, McGraw-Hill, 1981.
- [10] D. Walkup, The lower bound conjecture for 3- and 4-manifolds, Acta. Math. 125 (1970), 75-107.