Dynamics and Symmetries Seminar - MAT/UnB

Actions on positively curved manifolds and boundary in the orbit space

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15h00

ONLINE (in portuguese)
MS Teams: `https://bit.ly/3BlsNYG`

Abstract. We study isometric actions of compact Lie groups on complete orientable positively curved n-manifolds whose orbit spaces have non-empty boundary in the sense of Alexandrov geometry. In particular, we classify quotients of the unit sphere with non-empty boundary. We deduce from this the list of representations of simple Lie groups that admit non-trivial reductions. As a tool of special interest, we introduce a new geometric invariant of a compact symmetric space, namely, the minimal number of points in a "spanning set" of the space. (Joint work with Andreas Kollross and Burkhard Wilking.)

References

[1] C. Gorodski, A. Kollross, B. Wilking: *Actions on positively curved manifolds and boundary in the orbit space*, arXiv:2112.00513, December 2021.