Yuhang Liu* (liuyuhang.fudan@gmail.com), 321 N 40th St., Philadelphia, PA 19104. On positively curved manifolds of dimension 6.

Understanding the structure of Riemannian manifolds with strictly positive sectional curvature remains a fundamental problem in Riemannian geometry. In this talk, I will briefly go over the history of the classification of positively curved manifolds in low dimensions under certain symmetry assumptions on the isometry group. Then I will focus on dimension 6 and discuss positively curved 6-manifolds whose isometry groups are non-Abelian Lie groups. Examples of such manifolds will be given together with the isometric group actions, and if time permits I will present some results I got in this direction. This is ongoing work on my thesis problem. (Received September 06, 2018)