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*Alexandrov-Fenchel type inequalities in the sphere*

The Alexandrov-Fenchel inequalities for quermassintegrals in the Euclidean spaces are classical topics in differential geometry and convex geometry. The corresponding problem in non-convex hypersurfaces in space forms has gained much interest recently but remains largely unsettled. The application of curvature flows to prove the geometric inequalities is nowadays classical. In this talk, I will introduce a recent work about the Alexandrov-Fenchel inequalities in the sphere by employing suitable curvature flows.