

# Geometric Inequalities for Hypersurfaces in Space Forms

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We will present several geometric inequalities for hypersurfaces in space forms. Each of these inequalities is obtained by defining a related quantity and showing that this quantity is monotone along some geometric flow (mainly the inverse mean curvature flow). One of our results gives a partial answer to a conjecture of Ge, Wang and Wu concerning the weighted Alexandrov-Fenchel inequalities for hypersurfaces in hyperbolic space.