

The geometry of Banach space and fixed point of non-expansive mapping

Ji Gao

(Department of Mathematics, Community College of Philadelphia, Philadelphia, PA 19130-3991,
USA)

E-mail: jgao@ccp.edu

Let X be a Banach space, and $B(X)$ and $S(X)$ be the unit ball and unit sphere of X . In this talk, we study the further properties of some known geometric parameters that related to convexity of $B(X)$, and curves on $S(X)$. The relationships of values of these parameters with normal structure, uniformly non-square are obtained. Some existing results about fixed points of non-expansive mapping are improved.