

Ji Gao

Department of Mathematics, Community College of Philadelphia, USA

Topic: Normal Structure, Fixed Points for Non-Expansive Mappings and Some Geometric Parameters in Banach Spaces X and X^* .

Abstract: Let X be a Banach space and X^* be its dual. In this talk, we give relationships among some parameters in X : ε -nonsquareness parameter, $J(\varepsilon, X)$; ε -boundary parameter, $Q(\varepsilon, X)$; the modulus of smoothness, $\rho_X(\varepsilon)$; ε -Pythagorean parameter, $E(\varepsilon, X)$; weak orthogonality parameter, $\omega(X)$; the parameter involving arc length, $\zeta_X(\varepsilon)$ and the modulus of n -dimensional U -convexity of X , $U_X^n(\varepsilon)$ that imply uniform norm structure in X , or X^* . Some existing results are extended or approved.