

1135-47-2507

Yuwen Wang* (wangyuwen1950@aliyun.com). *Metric Generalized Inverses in Banach Spaces and Their Applications in Bifurcation Theory.*

In this talk, we first introduce the development of the concept of the metric generalized inverse of a linear operator in Banach space. Though the concept of the metric generalized inverse in Banach space mainly comes from the solution of a ill-posed linear operator equation in Banach space, but it also has important applications in the bifurcation theory in nonlinear analysis. By the generalized metric generalized inverses in Banach space, two bifurcation theorems from multiple eigenvalues are given in this talk, and a unified perturbation theory of the generalized metric generalized inverse is also given, which include the classical perturbation theorems of the metric generalized inverse or the bounded linear generalized inverse. (Received September 26, 2017)