Electronic Journal: Southwest Journal of Pure and Applied Mathematics
Internet: http://rattler.cameron.edu/swjpam.html
ISBN 1083-0464
Issue 1 June 2001, pp. 1 – 12
Submitted: August 22, 2000. Published: June 30, 2001

THE UNIQUENESS AND STABILITY OF UNFOLDINGS OF EQUIVARIANT TWO-PARAMETER BIFURCATION PROBLEMS

Bing Li, Jiancheng Zou

Abstract. Under the action of Γ-equivariant U-equivalence group, we study the unfoldings of equivariant two-parameter bifurcation problems of finite codimension, where the bifurcating parameters are of vector value. The main results: (1) the equivalence classes of k-parameter versal unfoldings of a Γ-equivariant bifurcation problem are one-to-one corresponding to the orbit of the bifurcation problem, (2) the stability theorem and the versal unfolding theorem, a lemma is proved and by means of it we give simple proofs of the theorems.

A.M.S. Subject Classification Codes:. 58F14, 58C27

Keywords and Phrases:. Equivariant bifurcation problem, versal unfolding, stability

Research partially supported by National NSF of China under grant number 19771035
E-Mail: sxsys@mail.csuep.edu.cn