

ON THE ROLE OF BOGOLYUBOV'S INTEGRAL  
MANIFOLD METHOD IN BIFURCATION  
ANALYSIS OF MULTIDIMENSIONAL  
NONLINEAR MODELS

*O.B. Lykova*

Institute of Mathematics, Nat. Acad. of Sci. of Ukraine  
(3, Tereshchenkivs'ka Str., Kyiv 01601, Ukraine)

S u m m a r y

It is shown that the results by Bogolyubov on the reduction of a multidimensional dynamical system on its integral manifold are the base of the center manifold theory which, together with normal forms, is a powerful tool of the bifurcation analysis of multidimensional nonlinear models.