
GLOBAL BIFURCATION OF FORCED OSCILLATIONS OF ODE'S INVOLVING THE Φ -LAPLACIAN

Alessandro Calamai

We present some recent results concerning a class of parametric, perturbed implicit ordinary differential equations with a generalized Φ -Laplacian type term, in which the perturbation is allowed to be of Carathéodory type regularity. Under suitable assumptions based on Brouwer topological degree, we obtain global bifurcation of nontrivial periodic solutions having the same period as that of the perturbation and emanating from the set of stationary solutions.

The results presented have been obtained in collaboration with Maria Patrizia Pera and Marco Spadini.

References

- [1] A. Calamai, M.P. Pera and M. Spadini, Forced oscillations for generalized Φ -Laplacian equations with Carathéodory perturbations. *Communications in Contemporary Mathematics*, to appear.

Alessandro Calamai, DICEA, Università Politecnica delle Marche, Ancona, Italy
e-mail : a.calamai@univpm.it
