WRONG *a priori* ideas in the study of boundary value problems AND PERIODIC SOLUTIONS : SOME PERSONAL EXPERIENCES

Jean Mawhin

A priori ideas may be useful and even essential in mathematical research. Wrong a priori ideas may delay or even prevent the obtention of results.

The lecture describes a few examples of results that have killed some reasonable looking (at least for him) wrong *a priori* ideas of the speaker.

They are related to nonresonance conditions for the solvability of Dirichlet boundary value problems for second order nonlinear ordinary differential equations and to the topological detection of non constant periodic solutions.

<u>Jean Mawhin</u>, Université Catholique de Louvain e-mail : jean.mawhin@uclouvain.be