



### Dynamical instability of laminated plate with external cutout

**Jan Awrejcewicz, Lidiya Kurpa, Olga Mazur**

*Abstract:* Method for study of nonlinear parametric vibrations of the laminated plates of the symmetrically structure with respect to thickness is proposed. Mathematical statement is fulfilled in framework of the classical theory based on hypothesis by Kirchhoff-Love. The developed method essentially uses the R-functions theory. That is why it may be applied to laminated plates with an arbitrary form and different boundary conditions. Besides the proposed method is numerically-analytical, that greatly facilitates the solution of nonlinear problems. In order to show the advantage of the developed approach instability zones and response curves for three layered cross- and angle-ply plate of the complex form are presented.

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<sup>1)</sup> Jan Awrejcewicz, Professor: Lodz University of Technology, Politechnika Łódzka 90-924 Łódź, ul. Żeromskiego 116, POLAND (jan.awrejcewicz@p.lodz.pl).

<sup>2)</sup> Lidiya Kurpa, Professor: National Technical University, NTU "KhPI" 21, Frunze str., 61002, Kharkiv, UKRAINE (kurpa@kpi.kharkov.ua).

<sup>3)</sup> Olga Mazur, Ph.D.: National Technical University, Kharkiv, Frunze str., 21, UKRAINE (mazuroly@gmail.com), the author presented this work at the conference.