



Professor Arnold Sergeevitch Volmir (1910 – 1986) delivering the keynote lecture at the All-Union Conference on Plates and Shells in the city of Dnepropetrovsk in 1969

Selected publications:

Volmir, A. S., Elastic Plates and Shells, (in Russian) State Publishing House of Technical-Theoretical Literature, Moscow, 1956.

Volmir, A.S. (1958). On the Stability of Dynamically Loaded Cylindrical Shells, Dokladi Akademii Nauk SSSR, 123: 806–808. Translation in: Soviet Physics Doklady, 3: 1287–1289, 1958.

A.S. Volmir and V.E. Mineev, “An experimental investigation of the buckling of a shell under dynamic load”, Soviet Physics Doklady, Vol. 4, p. 464, 1959

A.S. Volmir, “Stability and postbuckling behavior of shells under dynamic loading”, Proc. Theoretical and applied mechanics, 1960, Springer

Agamirov, V. L., and Volmir, A. S., "Behavior of Cylindrical Shells Under Dynamic Loading by Hydrostatic Pressure or by Axial Compression," Translation in American Rocket Society Journal Supplement, January, 1961.

Volmir, A.S. “Stability of Elastic Systems”, Moscow, Nauka. English Translation: Foreign Technology Division, Air Force Systems Command. Wright-Patterson Air Force Base, Ohio, AD628508, 1967.

Volmir S.A., Stability of deforming systems, Science, Moscow, 1967 /in Russian/.

Volmir S.A., Nonlinear dynamic of plates and shells, Science, Moscow, 1972 /in Russian/.

A. S. Volmir and K.Z. Khairnasov, “Stability of toroidal composite shells”, Mechanics of Composite Materials, Vol. 18, No. 3, 1982, pp. 312-316, doi: 10.1007/BF00604311

PARTIAL INTRODUCTION: During the next decades more and more shell-type structures in various areas of technology will be made out of composite materials. This refers also to toroidal shells encountered in spacecraft, in submarine structures, as well as in other areas of technology. In this connection it is important to investigate the stability of toroidal shells made out of composite materials having different elastic characteristics in various directions. To solve this problem we shall make use of the finite element method as the most suitable for computer implementation...