

Formulation of the Initial Boundary Value Problems in the Theory of Multilayer Thermoelastic Thin Bodies in Moments. II

Mikhail Nikabadze, Tamar Moseshvili, Ketevan Tskhakaia, Nodar Mardaleishvili, Armine Ulukhanyan

Abstract: Various representations of the equations of motion, the heat influx, the constitutive relations of physical and heat content are given for the new body domain parametrization. The definition of the k th order moment of a certain quantity with respect to an orthonormal polynomial systems is given. The expressions of moments of first- and second-order partial derivatives of a certain tensor field are obtained and this is also done for some important expressions required for constructing different variants of the thin body theory.

¹⁾ Mikhail Nikabadze, Professor: Lomonosov Moscow State University, Leninskye Gory, RUSSIA (nikabadze@mail.ru).

²⁾ Tamar Moseshvili, Ph.D.: Akaki Tsereteli Kutaisi State University, Tamar Mephe str., GEORGIA (tamarmoseshvili@yahoo.com).

³⁾ Ketevan Tskhakaia, Ph.D.: Akaki Tsereteli Kutaisi State University, Tamar Mephe str., GEORGIA (spectri@gmail.com).

⁴⁾ Nodar Mardaleishvili, Ph.D.: Akaki Tsereteli Kutaisi State University, Tamar Mephe str., GEORGIA (nodarmard3@mail.ru).

⁵⁾ Armine Ulukhanyan, Ph.D.: Bauman Moscow State Technical University, 2-ya Baumanskaya str., RUSSIA (armine_msu@mail.ru).