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## ON DYNAMIC PROBLEMS OF GENERALIZED ELECTROELASTICITY

The talk deals with the dynamic boundary value problems for a homogeneous anisotropic piezoelectric body when the vector of polarization is taken into account (R. Toupin's model of piezoelectric medium). Two types of boundary conditions are considered: when on bounday vector of displacement and electric potential or the vector of mechanical stresses and boundary charges are given.

Dynamic problems are reduced to the associated with them problems of pseudo-oscillations by mean the Laplace transform. Using the potential theory and the theory of pseudodifferential equations these problems are investigated, the existence and uniqueness theorems are proved and the asymptotic properties of solutions are established.

Finally, employing the inverse Laplace transform we prove the existence and uniqueness of solutions of dynamic problems.