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Summaries of Papers Appearing in this Issue

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(These summaries may be reproduced)

C. I. BORȘ, Iași: *Orthotropic almost cylindrical beams: Bending by a transverse load.* Apl. mat. 18 (1973), 1—8. (Original paper.)

The problem of bending by a transverse load of orthotropic cylindrical beam is solved by reducing it to Almansi's problem. The present method is much simpler then those already known and allows some generalizations.

R. BERA, Jhargram Raj: *Propagation of monochromatic waves in an initially stressed infinite micropolar elastic plate.* Apl. mat. 18 (1973), 9—17. (Original paper.)

The object of this paper is to investigate the propagation of monochromatic waves in an initially stressed infinite micropolar elastic plate. The "initial stress" is considered in the light of Cauchy theory. The problem of propagation of waves is reduced to the solution of symmetric and anti-symmetric vibrations.

JIŘÍ ANDĚL, Praha: *On the Bayes approach in general multiple autoregressive series.* Apl. mat. 18 (1973), 18—29. (Original paper.)

The Bayes theory of multiple autoregressive series is derived in the paper. The point estimates for unknown autoregressive parameters are given. The posterior distributions are derived and used for testing hypotheses. The theory is applied to the model with exogenous and endogenous variables.

VÁCLAV ALDA, Praha: *On generalized localizability.* Apl. mat. 18 (1973), 30—32. (Original paper.)

It is shown that the definition of generalized localizability, as given by Jauch and Piron, can be justified by direct arguments. A theorem, similar to that of Neumark on representation of POV — measures, is demonstrated for classical systems.

MARIE KOPÁČKOVÁ, Praha: *On periodic solutions of some equations of mathematical physics.* Apl. mat. 18 (1973), 33—42. (Original paper.)

Some linear and weakly nonlinear partial differential equations with Dirichlet boundary conditions are treated. The necessary and sufficient conditions for the existence and uniqueness of a periodic solution are given and several examples from classical physics are included.

IVAN HLAVÁČEK, Praha: *On a semi-variational method for parabolic equations II.* Apl. mat. 18 (1973), 43—64. (Original paper.)

The invariance of the n-th semivariational approximation with respect to the polynomial bases and its coincidence with the n-th Padé approximation at the basic time instants are proved for the case of the homogeneous abstract parabolic equation.

The method and theorems are also extended to parabolic problems with inhomogeneous boundary conditions and to equations with two positive definite operators.