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SUMMARIES OF PAPERS APPEARING IN THIS ISSUE

(These summaries may be reproduced)

FRANTIŠEK CHVÁLA, Praha: *Recurrent evaluation of integrals of the type* $\int_0^1 x^\alpha \sin 2\pi px \, dx$, $\int_0^1 x^\alpha \cos 2\pi px \, dx$ *with respect to numerical stability.* Apl. mat. 20 (1975), 206—215. (Original paper.)

The paper deals with recurrent processes for the evaluation of integrals occurring in the numerical Fourier analysis. The problem of preventing a substantial influence of round-off errors accumulation is discussed and a numerically stable algorithm is developed. The theory is supplied with illustrative numerical examples.

JAROSLAV HASLINGER, IVAN HLAVÁČEK, Praha: *Curved elements in a mixed finite element method close to the equilibrium model.* Apl. mat. 20 (1975), 233—252. (Original paper.)

Using the new variational approach for solving one elliptic equation of second order with constant coefficients, the authors study the rate of convergence of Galerkin's approximations in a space of curved finite elements.

MILOSLAV FEISTAUER, Praha, JOSEF ŘÍMÁNEK, Ostrava: *Subsonic irrotational flow of compressible fluid in axially-symmetric channels.* Apl. mat. 20 (1975), 253—265. (Original paper.)

On the basis of a detailed analysis of irrotational compressible flow a model problem describing subsonic stream fields is formulated.

MILOSLAV FEISTAUER, Praha, JOSEF ŘÍMÁNEK, Ostrava: *Solution of subsonic axially-symmetric stream fields.* Apl. mat. 20 (1975), 266—279, (Original paper.)

Existence and uniqueness of solution of the model problem describing subsonic irrotational channel flow is studied.

IVAN HLAVÁČEK, Praha, JOACHIM NAUMANN, Berlin: *Inhomogeneous boundary value problems for the von Kármán equations,* II. Apl. mat. 20 (1975), 280—297. (Original paper.)

The existence of solutions to a class of mixed boundary value problems is discussed, when the boundary conditions do not eliminate the possibility of transversal motions of a "non-flexible" plate. Thus one part of the edge may be supported and elastically clamped, another part both elastically supported and clamped, being loaded by transversal loads and moments and the third part is elastically supported without rotations. The edges may have corners and are loaded also by tractions acting in the plane of the plate.