



UNIVERSITY OF NOVI SAD
Faculty of Science
Institute of Mathematics

PrIM '96

ABSTRACTS
of XI Conference
on Applied Mathematics

Budva, 3-6.6.1996.

solving multidimensional parabolic partial differential equations. The analysis of the stability and convergence is done for model twodimensional problem with constant coefficients. Obtained theoretical results and numerical tests calculated for various problems confirm that the constructed schemes can be successfully applied also for solving problems with dominant convective term.

Numerical Integration Over Unit n -sphere And Torus By Gauss, Rectangle And Turán's Formulas

Miodrag Spalević

Faculty of Science, Kragujevac

A generalization of the known results from the theory of numerical integration over the unit n -dimensional sphere ($n \geq 3$)

$$S_n = \{x \equiv (x_1, \dots, x_n) \in E_n \mid x_1^2 + \dots + x_n^2 \leq 1\}$$

and the n -dimensional Torus ($n \geq 3$), by using products Gauss, rectangle and Turán's quadrature formulas is given. AS the basis for the generalization we are using the results published in the books: Mysovskih ("Interpolating cubature formulas") and Stoud's ("Approximate Calculation of Multiple Integrals"), and results which are recently obtained by Gradimir V. Milovanović and author for Turán's quadrature formulas.

The Application Of Differential Equations At Determining Technological Parameters Of Weaving Looms

Dragan T. Stoiljković, Nenad P. Cakić and Momčilo Kocić

Faculty of Technology, Leskovac, Yugoslavia

In this paper we consider mathematical model for transporting yarn through weaving loom shed with SULZER type projectiles. The solution of this model is applied to determine the length a loop, which is used as a base for adjusting a brake and yarn compensator.

Some

The diff
difference s
the classica
problem. T
gence in res
order for ot

Least-Sq

As it is w
problem for d
zhenskaya-Ba
choice of finite
sures.

In this w
stability of r
dition. In su
approximatio
to symmetric