

Table of contents

In: Jan Chleboun and Pavel Kůš and Petr Přikryl and Karel Segeth and Jakub Šístek and Tomáš Vejchodský (eds.):
Programs and Algorithms of Numerical Mathematics, Proceedings of Seminar. Janov nad Nisou, June 19-24, 2016.
Institute of Mathematics CAS, Prague, 2017. pp. 3–4.

Persistent URL: <http://dml.cz/dmlcz/702990>

Terms of use:

© Institute of Mathematics CAS, 2017

Institute of Mathematics of the Czech Academy of Sciences provides access to digitized documents strictly for personal use. Each copy of any part of this document must contain these *Terms of use*.



This document has been digitized, optimized for electronic delivery and stamped with digital signature within the project *DML-CZ: The Czech Digital Mathematics Library*
<http://dml.cz>

Contents

Preface	5
<i>Stanislav Bartoň, Lukáš Renčín</i>	
A. C. Clarke's Space Odyssey and Newton's law of gravity	7
<i>Vít Dolejší, Filip Roskovec</i>	
Goal oriented a posteriori error estimates for the discontinuous Galerkin method	15
<i>Cyril Fischer, Jiří Náprstek</i>	
Remarks on inverse of matrix polynomials	24
<i>Ladislav Foltyň, Oldřich Vlach</i>	
Implementation of full linearization in semismooth Newton method for 2D contact problem	30
<i>Milan Hokr, Aleš Balvín</i>	
Numerical studies of groundwater flow problems with a singularity	37
<i>Radim Hošek</i>	
The role of Sommerville tetrahedra in numerical mathematics	46
<i>Radka Keslerová, David Trdlička, Hynek Řezníček</i>	
Numerical modelling of steady and unsteady flows of generalized Newtonian fluids	55
<i>Václav Kučera, Andrea Živčáková</i>	
Discontinuous Galerkin method for a 2D nonlocal flocking model	63
<i>Ctirad Matonoha, Štěpán Papáček, Stefan Kindermann</i>	
On the optimization of initial conditions for a model parameter estimation	73
<i>Jaroslav Mlýnek, Tomáš Martinec, Michal Petru</i>	
Calculation of industrial robot trajectory in frame composite production	81
<i>Jan Přikryl, Miroslav Vaniš</i>	
Comparing numerical integration schemes for a car-following model with real-world data	89
<i>Petra Rozehnalová</i>	
Numerical integration in the Trefftz finite element method	97
<i>David Runt, Jaroslav Novotný, Jan Pruška</i>	
Mathematical modelling of rock bolt reinforcement	102
<i>Karel Segeth</i>	
A particular smooth interpolation that generates splines	112

<i>Stanislav Sysala, Martin Čermák</i>	
Implicit constitutive solution scheme for Mohr-Coulomb plasticity	120
<i>Jiří Vala</i>	
Computational modelling of thermal consumption of buildings with controlled interior temperature	130
<i>Jan Valášek, Petr Sváček, Jaromír Horáček</i>	
On finite element approximation of flow induced vibration of elastic structure .	144
<i>Alena Vašatová, Jiří Tomčala, Radim Sojka, Marek Pecha, Jakub Kružík, David Horák, Václav Hapla, Martin Čermák</i>	
Parallel strategies for solving the FETI coarse problem in the PERMON toolbox	154
<i>Jan Vlček, Ladislav Lukšan</i>	
A generalized limited-memory BNS method based on the block BFGS update .	164
List of participants	172