

ISSN 2453-6881
2018(4)

{MERAAN}

Mathematics in Education, Research and Applications

Research in mathematics and related fields

Education in mathematics at all types of schools

Applications of mathematics in teaching, research and practice

Methodology of mathematics

Information technology tools in mathematics

Cross-curricular relations with mathematics

Volume Index :: 2018(4)**Editorial Team****Scientific Board**

- Dr.h.c. prof. Ing. Peter Bielik, Ph.D., Slovak University of Agriculture in Nitra, SK
- prof. Dr. Ing. Elena Horská, Slovak University of Agriculture in Nitra, SK
- doc. RNDr. Dana Országhová, CSc., Slovak University of Agriculture in Nitra, SK
- doc. RNDr. Václav Nýdl, CSc., University of South Bohemia in v České Budějovice, CZ
- RNDr. Radovan Potůček, Ph.D., University of Defence, Brno, CZ
- Dr. Inż. Patrycja Hąbek, Silesian University of Technology, Zabrze, PL
- prof. Volodimir M. Bulgakov, National University of Life and Environmental Sciences of Ukraine, UA
- Dr. Vinogradov Sergey, Szent István University, Gödöllő, HU
- Dr. Ugrósdy György, Szent István University, Gödöllő, HU
- Henrietta Nagy, Ph.D., Szent István University, Gödöllő, HU
- prof. RNDr. Ján Čižmár, Ph.D., Universitas Tyrnaviensis, Trnava, SK
- prof. RNDr. Anna Tirpáková, CSc., Constantine The Philosopher University in Nitra, SK
- prof. RNDr. Ondrej Šedivý, CSc., Constantine The Philosopher University in Nitra, SK
- doc. RNDr. Eduard Boďa, CSc., Comenius University in Bratislava, SK
- doc. RNDr. Štefan Solčan, Ph.D., Comenius University in Bratislava, SK
- doc. RNDr. Mária Mišútová, Ph.D., Slovak University of Technology in Bratislava, SK
- doc. RNDr. Daniela Velichová, CSc., Slovak University of Technology in Bratislava, SK
- Ing. Pavel Flák, DrSc., Slovak Academy of Agricultural Sciences, Lužianky, SK

Editorial Board

- doc. RNDr. Dana Országhová, CSc., Slovak University of Agriculture in Nitra, SK :: **Editor in Chief**
- Mgr. Vladimír Matušek, Ph.D., Slovak University of Agriculture in Nitra, SK
- Mgr. Norbert Kecskés, Ph.D., Slovak University of Agriculture in Nitra, SK

Mathematical scholarly, peer-reviewed, open access, online journal.

Publisher: Slovak University of Agriculture in Nitra :: Department of Mathematics

ISSN: 2453-6881

Journal Website: <http://meraa.uniag.sk>

Journal acronym: MERA

Journal title abbreviation: *Math Educ Res Appl*

Periodicity: 2 times per year.



Attribution 4.0 International (CC BY 4.0)

Contents**No. 1**

Radovan Potůček

The sum of the series of reciprocals of the cubic polynomials with three different positive integer rootsdoi: <https://doi.org/10.15414/meraa.2018.04.01.1-8>

..... 1

Jozef Rédl, Dušan Páleš

Processing of stress dataset with rain-flow counting methoddoi: <https://doi.org/10.15414/meraa.2018.04.01.9-17>

..... 9

Ingrid Karandušovská, Jana Lendelová, Štefan Bodo, Miroslav Žitňák

Influence of microclimatic environment on production of pollutants from recycled manure solids in laboratory conditionsdoi: <https://doi.org/10.15414/meraa.2018.04.01.18-22>

..... 18

Janka Drábeková, Tomáš Pechočiak, Vladimír Matušek

Mathematical competencies of students entering university studies. Case study of Slovakiadoi: <https://doi.org/10.15414/meraa.2018.04.01.23-30>

..... 23

Lukáš Varecha

Application of factor analysis to measure social capital in Slovak districtsdoi: <https://doi.org/10.15414/meraa.2018.04.01.31-38>

..... 31

Martin Maris

Input-output modeling approach to measuring structural shift of output and macroeconomic productivity: the case of Slovakiadoi: <https://doi.org/10.15414/meraa.2018.04.01.39-48>

..... 39

No. 2

Katarína Melichová, Oľga Roháčiková

University's ripple effects on local economy: using input-output analysis to estimate multiplier effectsdoi: <https://doi.org/10.15414/meraa.2018.04.01.49-56>

..... 49

Vladimír Matušek

Students' mathematical competences and exam resultsdoi: <https://doi.org/10.15414/meraa.2018.04.02.60-66>

..... 60

Milada Balková, Tímea Szabóová, Dušan Páleš

Comparison of daylighting in the original and reconstructed housing buildingsdoi: <https://doi.org/10.15414/meraa.2018.04.02.67-74>

..... 67

Tímea Szabóová, Ingrid Karandušovská, Milada Balková

Assessment of temperature parameters in the heated and unheated part of the hall objectdoi: <https://doi.org/10.15414/meraa.2018.04.02.75-82>

..... 75

Radomíra Hornyák Gregáňová, Miriam Pietriková, Norbert Kecskés

Financial and insurance mathematics in practice from students' point of viewdoi: <https://doi.org/10.15414/meraa.2018.04.02.83-87>

..... 83

Dana Országhová, Viera Papcunová, Radomíra Hornyák Gregáňová

Quantitative tools of municipal financial resources assessmentdoi: <https://doi.org/10.15414/meraa.2018.04.02.88-92>

..... 88