

MATHEMATICAL MODELING IN PHYSICS AND ENGINEERING MMPE'2019



CONFERENCE PROGRAM



24 – 26 czerwca 2019 NIEZANICE

24.06.2019 Monday

9:00 – 10:00 *Registration (Lobby of Nieznanice Palace)*

10:15 – 10:30 **Conference opening address** *Jolanta Pozorska*

Session A – invited lectures

Chair: *Norbert Szczygiol, Małgorzata Klimek*

10:30 – 11:00 **TWO-DIMENSIONAL MAGNETS AND THEIR APPLICATIONS** *Andrzej Drzewiński*

11:00 – 11:30 **FORMAL FOUNDATION OF COMPONENT-BASED SYSTEMS
- A GENTLE INTRODUCTION**
Valerie Novitzká, William Steingartner

11:30 – 12:00 **POWIERZCHNIOWA PUNKTOWA OBRÓBKA CIEPLNA STALOWYCH
ELEMENTÓW OSIOWOSYMETRYCZNYCH - MODELOWANIE**
Adam Kulawik, Joanna Wróbel, Michał Sobiepański

12:00 – 12:30 *Coffee break*

Poster Session B

Chair: *Stanisław Kukła, Adam Kulawik*

12:30 – 13:15 **NUMERICAL INTEGRATION METHODS FOR THE APPROXIMATE COMPUTATION
OF THE LEFT CAPUTO DERIVATIVE WITH "SHORT MEMORY"**
Tomasz Błaszczuk, Krzysztof Bekus, Krzysztof Szajek, Wojciech Sumelka

**THE DIRICHLET PROBLEM FOR THE FRACTIONAL HEAT CONDUCTION WITH
HEAT ABSORPTION IN A SPHERE** *Yuriy Povstenko, Joanna Klekot*

**HEAT CONDUCTION BASED ON GENERALIZED FOURIER LAW AND FRACTIONAL
CALCULUS** *Stanisław Kukła, Urszula Siedlecka*

12:30 – 13:15 **THE EQUIDISTANTLY UNIFORMLY BOUNDED NEMYTSKIJ OPERATOR IN A
SPECIAL BANACH SPACE OF FUNCTIONS** *Maria Lupa, Małgorzata Wróbel*

**A SURVEY OF PRIORITETIZATION METHODS BASED ON PAIRWISE
COMPARISON MATRIX** *Tomasz Starczewski*

**COMPARISON OF THE NUMERICAL AND ANALYTICAL SOLUTIONS OF THE
LAPLACE EQUATION IN THREE-DIMENSIONAL SPACE**
Ewa Węgrzyn-Skrzypczak, Tomasz Skrzypczak

ECONOMIC ISSUES MODELLING *Ewa Ładyga, Marek Ładyga*

**AN EXACT SOLUTION OF THE FOURTH ORDER DIFFERENTIAL EQUATION WITH
THE FRACTIONAL BOUNDARY CONDITIONS**
Jarosław Siedlecki, Mariusz Ciesielski, Tomasz Błaszczuk

	ABOUT MULTILINE QUEUEING SYSTEM WITH RANDOM TIME LIMITATIONS AND LIMITED BUFFER SPACE <i>Oleg Tikhonenko, Paweł Zajac</i>
13:15 – 14:15	Dinner
Session C Chair: Valerie Novitzká	
14:15 – 14:35	A SURVEY OF TEACHING TOOLS FOR THE COURSE ON THE SEMANTICS OF PROGRAMMING LANGUAGES <i>William Steingartner, Valerie Novitzká</i>
14:35 – 14:55	SOME REMARKS ABOUT YOUNG MEASURES WITH DENSITIES <i>Piotr Puchała</i>
14:55 – 15:15	THE NONLOCAL PROBLEMS OF THERMAL CONTACT CONDUCTANCE AND THE RELATED TWO-PARAMETER FELLER SEMIGROUPS <i>Bohdan Kopytko, Roman Shevchuk</i>
15:15 – 15:35	MODELING OF TEMPERATURE FIELD DURING SURFACE MODIFICATION OF ALZN5.5MGCU ALUMINUM ALLOY USING GTAW TECHNOLOGY <i>Jerzy Winczek, Mateusz Matuszewski, Józef Iwaszko</i>
18:00	Barbecue
25.06.2019 Tuesday	
9:30 – 10:30	Breakfast
Session D Chair: William Steingartner	
10:30 – 10:50	THE UPPER LIMB – ANALYSIS OF KINEMATICS IN REFERENCE TO THE CONSTRUCTION OF THE REHABILITATION EXOSKELETON <i>Dawid Cekus, Ilona Kubik-Maciąg</i>
10:50 – 11:10	STABILITY OF COLUMN EXPOSED TO HIGH TEMPERATURE <i>Sebastian Uzny, Łukasz Kutrowski, Tomasz Skrzypczak</i>
11:10 – 11:30	THROAT LENGTH IMPACT ON MIXING CHARACTERISTICS IN A VENTURI GAS MIXER USING OPENFOAM <i>Mathias Romańczyk</i>
11:30 – 12:10	Coffee break

Didactic Panel Discussion - Session E

Moderators: *Tomasz Derda, Sylwia Lara-Dziembek, Edyta Pawlak-Kazior, Jowita Rychlewska*

12:10 – 12:30	RAPORT NIK: NAUCZANIE MATEMATYKI W SZKOŁACH <i>Tomasz Derda</i>
12:30 – 12:50	JAK DOBRZE POPROWADZIĆ WYKŁAD – PORADY PRAKTYCZNE <i>Sylwia Lara-Dziembek</i>
12:50 – 13:10	ZASADY KONSTRUKCJI TESTÓW EGZAMINACYJNYCH Z MATEMATYKI <i>Edyta Pawlak-Kazior</i>
13:10 – 13:30	PROBLEMY W ROZUMIENIU POJĘCIA TWIERDZENIA I DOWODU W NAUCZANIU MATEMATYKI <i>Jowita Rychlewska</i>
13:30 – 14:30	<i>Dinner</i>

Session F

I have a problem ...

Chair: *Tomasz Błaszczuk*

14:30 – 17:00	Presentation of unsolved problems and open questions
	Discussion
	Session Summary
18:00	Conference banquet

26.06.2019 Wednesday

9:00 – 10:00	<i>Breakfast</i>
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Session G

Annual gathering of Institute of Mathematics, CUT

Chair: *Andrzej Grzybowski, Tomasz Błaszczuk*

10:00 – 11:30	Discussion
11:30 – 12:00	<i>Coffee break</i>
12:00 – 12:30	Conference closing – Andrzej Grzybowski
13:00 – 14:00	<i>Dinner</i>