

The Competition for the Best Dissertation Defended in 2023

Category 1: Economics, Finance and Management

Economics, Finance and Management	
• Aneta Siwczyk	• David Neděla
• Anna Kozak	• Adam Piasecki
• Rijad Trumić	• Agnieszka Majorek-Gdula

1 st	David Neděla
2 nd	Agnieszka Majorek-Gdula
3 rd	Rijad Trumić

Final results
Best 5 dissertations defended
in 2023

Category 2: Raw materials, Energy and the Environment

Raw materials, Energy and the Environment	
• Bartłomiej Rutczyk	• Matěj Křístek
• Oliwia Metryka	• Kateřina Stejskalová
• Juraj Struhár	

1 st	Oliwia Metryka
2 nd	Bartłomiej Rutczyk
3 rd	Kateřina Stejskalová

Category 3: Health and Applications in Healthcare

Health and Applications in Healthcare	
• Anna Skorupa	• Alžbeta Bugáňová
• Joanna Tobiasz	• Justyna Mika
• Marta Biesok	• Łucja Waligóra

1 st	Joanna Tobiasz
2 nd	Anna Skorupa
3 rd	Justyna Mika

Category 4: Information Technology and Electrical Engineering

Information Technology and Electrical Engineering	
• Radek Halfar	• Paulina Rutecka
• Maciej Klimas	• Ivana Králíková

1 st	Radek Halfar
2 nd	Maciej Klimas
3 rd	Ivana Králíková

Category 5: Competitive Engineering and Materials Research

Competitive Engineering and Materials Research	
• Adam Skowronek	• Katarzyna Młynarek-Żak
• Oktawian Białas	• Paweł Świec

1 st	Oktawian Białas
2 nd	Adam Skowronek
3 rd	Katarzyna Młynarek-Żak

Final results

- **Category: Economics, Finance and Management**

1st - David Neděla - Analysis of Complex Portfolio Strategies with Return Approximation Techniques

2nd - Agnieszka Majorek-Gdula - The Value Of Unused Urban Spaces

3rd - Rijad Trumić - Optimal Behaviour Towards Suppliers In The Automotive Industry

- **Category: Raw Materials, Energy and the Environment**

1st - Oliwia Metryka - Induction of oxidative stress in bacterial cells by selected metallic nanoparticles and its relationship with antimicrobial activity

2nd - Bartłomiej Rutczyk - Experimental and mathematical investigation into the heat-transfer processes within the heat exchangers of an α type Stirling engine

3rd - Kateřina Stejskalová - Effect of plasters containing PCMs on the thermal stability of attic rooms in buildings

- **Category: Health and Applications in Healthcare**

1st - Joanna Tobiasz - Machine learning methods in support of multiomics signature identification for breast cancer patient subpopulations

2nd - Anna Skorupa - Multi-scale modelling of heat and mass transfer in tissues and cells during cryopreservation including interval methods

3rd - Justyna Mika - Effects of low dose radiation exposure and ageing on T cell receptor beta chain (TCR β) repertoire in human and mice

- **Category: Information Technology and Electrical Engineering**

1st - Radek Halfar - Dynamics of cardiac electrophysiology models

2nd - Maciej Klimas - Comparative analysis and implementation of selected new alternating current electric arc models

3rd - Ivana Králiková - Investigation and analysis of the electric field of selected biological structures, design and implementation of the human-computer interface

- **Category: Competitive Engineering and Materials Research**

1st - Oktawian Bialas - The influence of hybrid processes of surface microalloying on the structure and properties of surface layers of Ti and Ti alloy-based biomedical materials

2nd - Adam Skowronek - Improvement of the ductility of high-strength medium-Mn steels through intercritical annealing

3rd - Katarzyna Młynarek-Żak - Designing the chemical composition of aluminium alloys with amorphous, nanocrystalline and quasicrystalline structures on the basis of thermodynamic calculations