

# 17<sup>th</sup> MATHEMATICAL AND STATISTICAL MODELING OF COMPLEX SYSTEMS WORKSHOP

SGH Warsaw School of Economics & Northeastern Illinois University  
in Chicago

19 – 27 April 2021  
16:00 – 18:30 CET  
9:00 – 11:30 CST

## WORKSHOP AGENDA

### Day I – Monday, April 19, 2021

16:00 – 16:15 Opening remarks – **Prof. Jacek Prokop**

Vice Rector for International Relations  
SGH Warsaw School of Economics

**Prof. Michael Stern**

Dean of College of Graduate Studies and Research  
Northeastern Illinois University in Chicago

**Prof. Lidia Filus**

Chair of Mathematics  
Northeastern Illinois University in Chicago

**Prof. Christina Ciecierski**

Department of Economics  
Northeastern Illinois University in Chicago

**Prof. Marzenna Anna Weresa**

Director of World Economy Research Institute  
SGH Warsaw School of Economics

The project is financed by the Polish National Agency for Academic Exchange (NAWA).

- 16:15 – 16:45**      **Racial and Ethnic Disparities in Illinois Lung Cancer Incidence, Mortality Stage at Diagnosis, Surgical Treatment, and Screening**  
Joe Feinglass  
Northwestern University Feinberg School of Medicine
- 16:45 – 17:15**      **Innovation Performance in China and Poland, with focus on Healthcare and Pharmaceutical Industry**  
Arkadiusz Michał Kowalski  
SGH Warsaw School of Economics
- 17:15 – 17:45**      **Meeting Grand Challenges. Assessment of Horizon 2020 Health, Demographic Change and Wellbeing projects**  
Małgorzata Stefania Lewandowska  
SGH Warsaw School of Economics
- 17:45 – 18:15**      **Bank Density, Population Density, and Economic Deprivation Across the United States**  
Scott W. Hegerty  
Northeastern Illinois University in Chicago

## **Day II – Tuesday, April 20, 2021**

- 16:00 – 16:30**      **Portfolio hedging with gold. The perspective of the Polish investor**  
Izabela Pruchnicka-Grabias  
SGH Warsaw School of Economics
- 16:30 – 17:00**      **Role of human capital in determining the domestic value added in exports. Does health matter?**  
Tomasz Marcin Napiórkowski  
SGH Warsaw School of Economics

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**17:00 – 17:30**      **Impact of COVID-19 on position of undergraduates on the labor market – Survey Outcomes**

Dagmara Ruskiewicz and Julian Smółka  
SGH Warsaw School of Economics

**17:30 – 18:00**      **How to prevent cancer? A Cluster Analysis of Risk Factors across EU Countries**

Dawid Majcherek  
SGH Warsaw School of Economics

### **Day III – Monday, April 26, 2021**

**16:00 – 16:30**      **Tumor Evolution during Immunotherapy: A Study of Parameters that Influence the Dynamics of a Darcy's Law Model**

Sarah Redemalla and Emma Turian  
Northeastern Illinois University in Chicago

**16:30 – 17:00**      **A Mathematical Model of Tumor Evolution in Mice using Functionality that Employs Saturation Levels**

Katherine Flores and Emma Turian  
Northeastern Illinois University in Chicago

**17:00 – 17:30**      **Quantify the robustness of causal inferences for dichotomous outcomes**

Qinyun Lin  
University of Chicago

**17:30 – 18:00**      **Tumor-Immune Evolution Response: A Comparison of Time Delayed Growth Models**

Samantha Condo and Emma Turian  
Northeastern Illinois University in Chicago

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## **Day IV – Tuesday, April 27, 2021**

**16:00 – 16:30**      **Trends in Incidence of Zoonotic Foodborne Diseases in the United States, 2010-2019**

Sayansk Da Silva, Joseph E. Hibdon, Jr.  
Northeastern Illinois University in Chicago

**16:30 – 17:00**      **Survival Analysis and Prognostic Factors of Primary Intramedullary Spinal Cord Astrocytoma Based on the 2016 Revised World Health Organization Classification of the Central Nervous System Tumors**

Shan Wang  
University of San Francisco

**17:00 – 17:30**      **VBHC as a tool for achieving clinical effectiveness**

Ewelina Nojszewska and Agata Sielska  
SGH Warsaw School of Economics

**17:30 – 18:00**      **Modelling the relationship between CSR involvement and business performance: challenges and best practices**

Piotr Zaborek  
SGH Warsaw School of Economics

**18:00 – 18:30**      **Modifying the Wolf-Sheep Predation Model to Utilize Flocking and Herding Dynamics Found in Traditional Agricultural Systems to Reduce Sheep Predation in NetLogo**

Rut Ortiz, Vada Becker, Christina Rouhotas, Joseph E. Hibdon, Jr.  
Northeastern Illinois University in Chicago

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