# AIME22

# Thursday, 17 November 2022 - Friday, 18 November 2022 Mercure Budapest Castle Hill

# **Scientific Programme**

#### **November 17**

09:00-09:15: Dr. István Szabó (NKFIH): Opening

**09:15-09:50:** Z. Fóris (Human Mind Project): *Natural Language Understanding using the Concept Network Model* 

**09:50-10:15:** A. Horváth (PPKE): *Preventing and restoring adversarial attacks in machine learning solutions* 

**10:15-10:40:** Han Dols (CERN): Accelerating Innovation: How CERN Technology Makes its Way into Society

#### 10:40-11:10: coffee break

**11:10-11:55:** A. György (Deepmind): On the Role of Neural Collapse in Transfer and Few-Shot Learning

**11:55-12:20:** P. Kovács (ELTE): Spiking Variable Projection Neural Networks for Arrhythmia Detection

**12:20-12:45:** G.G. Barnaföldi (Wigner RCP): One Lab Many Projects -- Review of the Wigner Scientific Computing Laboratory

#### 12:45-14:00: Lunch

14:00-14:35: P. Antal (BME): Bayesian (artificial) intelligence in the automation of science

**14:35-15:00:** Chang Liu (SZTAKI): UAVs collaborate with satellites in an early wildfire monitoring and rescue system

**15:00-15:25:** Z. Somogyvári (Wigner RCP): *How to find a Unicorn: model free anomaly detection in time series* 

### 15:25-16:00: coffee break

16:00-16:35: Balázs R. Sziklai (KRTK): Testing Rankings with Cross-Validation

16:35-17:00: M. Szabari (ELTE): System identification with rational orthogonal functions

17:00-17:25: P. Posfay (Wigner RCP): Classifying ECG signlas using linear laws

#### 18:00- social dinner

#### November 18:

09:00-09:15: Károly Solymár (TIM) Deputy State Secretary

**09:15-09:50:** Tommaso Calarco (PGI-8, Jülich): *Building the second quantum revolution in Europe:* from a flagship to a fleet

**09:50-10:20:** Yasser Omar (PQI, Lisszabon): *The Revolution of Quantum Technologies* **10:20-10:45:** Tamás Kiss (Wigner RCP): *Quantum Key Distribution: theory and practice* 

# 10:45-11:00: coffee break

11:00-11:25 Zoltán Zimborás (Wigner RCP): Simulation of quantum

computers via FPGA based data-flow engines

**11:25-12:00:** Anna Kaminska (Creotech Instruments S.A.) : *Building quantum computers - engineering challenges* 

**12:00-12:25:** Mátyás Koniorczyk (Wigner RCP): No-signaling and quantum correlations from the applications' point of view

12:25-12:50: Zoltán Kolarovski (Wigner RCP): Piquasso: Simulating photonic quantum computers

#### 12:45-14:00: Lunch

## Join Zoom Meeting

# Day 1:

https://wigner-hu.zoom.us/j/83530204761?pwd=WXAwcGo1SXA5U1UxRTZvaGFkWUVxZz09

Meeting ID: 835 3020 4761

Passcode: 174934

## Day 2:

https://wigner-hu.zoom.us/j/88967921592?pwd=WC9SVE85U1ljdDFhem03TlBaVjhZUT09

Meeting ID: 889 6792 1592

Passcode: 596333