PROGRAM

Wednesday, March 4, 2020	
14:30 - 18:00	Registration
15:00 - 19:30	**Tutorial: "Praktyczne Wprowadzenie do Obliczeń Neuronowych w Języku Python"**, M. Karwatowski, M. Pietroń, M. Wielgosz
Thursday, March 5, 2020	
8:00 -	Registration
9:00 - 10:20	**Session S1: Opening and CYFRONET presentations**, *Chair: Mariusz Sterzel* 9:00 **Opening and CYFRONET Presentation**, K. Wiatr 9:40 **Infrastruktura i Oprogramowanie dla Metod Sztucznej Inteligencji**, Ł. Flis 10:00 **Realizacja Obliczeń Metodami Sztucznej Inteligencji w ACK Cyfronet AGH**, P. Russek
10:20 - 10:50	coffee
10:50 - 11:50	**Session S2:** *Chair: Patryk Lasoń* **Current Status and Plans** – Panel Discussion
11:50 - 12:50	**Session S3: Contributed papers**, *Chair: Andrzej Zemła* 11:50 **Towards a Universal Platform for Large Scale Simulations on Prometheus**, M. Bubak, M. Kasztelnik, J. Meizner, P. Nowakowski, T. Gubała, M. Malawski 12:05 **High-Productivity, Interactive and Desktop-Like Platforms at ACC Cyfronet AGH-UST**, K. Noga, M. Czuchry, M. Pawlik, J. Budzowski, Ł. Flis, P. Lasoń, M. Magryś 12:20 **Evaluation of ARM Based System for Scientific Workloads**, M. Pawlik, M. Czuchry, K. Noga, J. Budzowski, M. Sterzel, Ł. Flis, P. Lasoń, M. Magryś 12:35 **Running Workloads on the Prometheus Cluster with Singularity**, J. Kapała, J. Meizner, P. Nowakowski, P. Wójtowicz, M. Bubak
12:50 - 14:20	lunch
14:20 - 16:00	**Session S4:** *Chair: Paweł Russek* **Invited talk** 14:20 **Quantum Computing – Current Status and Perspectives**, K. Rycerz **Contributed papers**

	15:00	**Computational Backend for Simulation-Based Reinforcement Learning with Application to Real-World Autonomous Driving**, B. Osiński, A. Jakubowski, P. Miłoś, P. Zięcina, K. Galias, H. Michalewski
	15:15	**Brute-Forcing Spin-Glass Problems with CUDA**, K. Jałowiecki, M. M. Rams, B. Gardas
	15:30	**Acceleration of Box Packing Algorithm Using OpenMP and CUDA**, R. Frączek, A. Dorobisz, P. Russek, K. Wiatr
	15:45	**Converting MPI Code to the MPI+OpenMP Hybrid**, A. Dorobisz, M. Czuchry, K. Noga
16:00 - 16:20	coffee	
16:20 - 17:50	**Session S5: Contributed papers**, *Chair: Janusz Orkisz*	
	16:20	**NLP: Training with Too Little Data**, M. Karwatowski, M. Wielgosz, M. Pietroń, D. Żurek, K. Piętak, K. Wiatr
	16:35	**Modelling Mechanical Properties of Aluminum Matrix Composite by Counter Propagation Network**, B. Sułkowski, M. Majchrowska
	16:50	**Multistart Approach to Identification of Phase Transformation Models for Steels Using HPC Infrastructure**, D. Bachniak, D. Szeliga
	17:05	**Structural and Electronic Properties of Multifunctional Carbon Composites of Organometal Halide Perovskite**, S. Klejna
	17:20	**Approximating Two-Electron Integrals with Pyramidal Convolutions**, A. Mreńca-Kolasińska, K. Kolasiński, B. Szafran
	17:35	**Steric and Electrostatic Stabilization in Unusual Beryllium(0) Complexes – Theoretical Research Based on Density Functional Theory (DFT)**, A. Ptaszek, F. Sagan, P. Kubisiak, M. P. Mitoraj
19:30 - 23:00	Dinner in „**Karczma Regionalna Przy Młynie**” ul. Bulwary Słowackiego 23, Zakopane	
Friday, March 6, 2020		
9:00 - 10:20	**Session S6: Invited talks**, *Chair: Karol Krawentek*	
	9:00	**Navigating Intel’s Future in Technology**, A. Jankowski, G. Kardaras
	9:30	**The HPE Route to Quantum Computing**, P. Lachamp
	10:00	**Automatyzacja Zarządzania Środowiskami Sieciowo-Serwerowymi na Przykładzie Systemu NEDAPS**, T. Paliczka

10:20 - 10:40	coffee
10:40 - 11:55	**Session S7: Contributed papers,** *Chair: Jacek Niemiec* 10:40 **Partnership for Advanced Computing in Europe Research Infrastructure – Scientific Opportunities**, K. Noga, M. Czuchry, A. Dorobisz, M. Pawlik, J. Budzowski, Ł. Flis, P. Lasoń, M. Magryś, M. Sterzel, Ł. Dutka 10:55 **Kinetic Simulations of Mildly Relativistic Perpendicular Shocks**, A. Ligorini, J. Niemiec, O. Kobzar, M. Iwamoto, T. Amano, M. Hoshino, Y. Matsumoto, M. Pohl 11:10 **Particle-In-Cell Simulations of the Cosmic Ray Leptons Interaction with Self-Generated Electromagnetic Turbulence**, O. Kobzar, Ł. Stawarz 11:25 **Particle-In-Cell Simulations of Shock Waves in Merging Galaxy Clusters**, K. Fułat, O. Kobzar, J. Niemiec 11:40 **Bayesian Analysis to Improve the Interpretation of Radiobiology Data**, K. Jeleń, L. Grzanka
11:55 - 12:15	coffee
12:15 - 13:30	**Session S8: Contributed papers**, *Chair: Klemens Noga* 12:15 **Molecular Dynamics Study of Correlations in Ion Transport in MeTFSI/EMIM-TFSI (Me = Li, Na) Electrolytes**, A. Eilmes, P. Kubisiak, P. Wróbel 12:30 **How the Shape of Macromolecules Affects Diffusion in Crowded Environments?**, T. Skóra, F. Vaghefikia, J. Fitter, S. Kondrat 12:45 **Estimates of Electric Conductivity from Molecular Dynamics – How to Improve the Averaging**, P. Kubisiak, A. Eilmes 13:00 **Classical and Ab Initio Molecular Dynamics of Magnesium Chloride Complexes in Dimethoxyethane Solutions**, P. Wróbel, P. Kubisiak, A. Eilmes 13:15 **A Software for Pharmacotherapy Optimization Project PharmOPTIM**, A. Mendyk, B. Baliś, M. Pawlik, L. Dekster, W. Turek, W. Frącz, B. Wiśniowska, Z. Tylutki, J. Szlęk, O. Shuklinova, M. Kisiel-Dorohinicki, A. Byrski, S. Polak
13:30 - 13:40	**Closing**
13:40 - 14:40	lunch