

The 9th International Conference on the Dynamics of Information Systems (DIS 2026)

May 31- June 4, 2026, Czech Republic

Conference Program-DIS 2026

Sunday, May 31, 2026	
20:00 – 21:30	<u>Session 1</u> : Welcome Reception. Kampuska Kafe-Pasteurova 5, 400 01 Ústí nad Labem-město
Monday, June 1, 2026	
08:00 – 16:00	<u>Session 2</u> : Registration of participants – Ground Floor of the CPTO building
09:00-09:30	Session 3: Opening ceremony
09:30-10:30	<u>Session 4: Plenary Talk</u> : A New Frontier: From a Single Network to a Network of Networks -Panos M. Pardalos- Chair: Hossein Moosaei
10:30-11:00	<u>Session 5</u> : Coffee break
11:00-12:30	<u>Session 6</u> : Presentations- Chair: Panos M. Pardalos
11:00-11:20	Automated Information Extraction from Historical Archives via OCR and NER, Zbyněk Zajíc, Ivan Gruber, Adam Frémund, Luděk Müller
11:20:11:40	Iterative improvement GA based algorithm for a car production process specified by an extended task graph, Adam M. Górski
11:40-12:00	Global QUBO Formulation of the Vehicle Routing Problem for Urban Waste Collection: Feasibility, Cost, and Scalability, Mahdia Ahmadi, Catarina Baldaia, P. J. Rodrigues, Getúlio Peixoto Igrejas, Rui Pedro Lopes
12:00-12:20	Adiabatic Quantum Computing in Urban Waste Collection Logistics Optimization, Mahdia Ahmadi, Catarina Baldaia, P. J. Rodrigues, Getúlio Peixoto Igrejas, Rui Pedro Lopes
12:30-13:30	<u>Session 7</u> : Lunch Pajda Bistro-České mládeže 8, 400 01 Ústí nad Labem-město

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13:30-14:30	<u>Session 8</u> : Presentations- Chair: Abdul-Rahman Mawlood-Yunis
13:30-13:50	Dynamic Knowledge Lifecycle Management for Academic Advising RAG Systems, Abdul-Rahman Mawlood-Yunis
13:50-14:10	Rethinking Cloud Elasticity: AutoML-Driven Predictive Scaling for Bursty Workloads, Mohib Magbool, Dariush Ebrahimi, Daniel Ramirez Bumaguin, MUSTAFA DARAGHMEH
14:10-14:30	When Does Forecasting Improve Cloud Auto-Scaling? A Trace-Driven Evaluation, Syed Muneeb Saeed, Sulaiman Sultan, Dariush Ebrahimi, MUSTAFA DARAGHMEH
14:30 -15:30	<u>Session 9</u> : Coffee break
Tuesday, June 2, 2026	
08:00 – 16:00	<u>Session 10</u> : Registration of participants (latter arrival)-Ground Floor of the CPTO
09:00-10:00	<u>Session 11</u> : Plenary Talk : From the Ball-proximal (Broximal) Point Method to Efficient Training of Large Language Models, Peter Richtárik- Chair: Hossein Moosaei
10:00-10:30	<u>Session 12</u> : Coffee break
10:30-12:00	<u>Session 13</u> : Presentations - Chair: David Hartman
10:30-10:50	Network distance based on graphlets, David Hartman, Jaroslav Hlinka
10:50-11:10	Comparing the Effectiveness of Influence Maximization Algorithms Across Changing Network Parameters, Anna Kmentová, Dávid Kubek, David Hartman, Jaroslav Hlinka
11:10-11:30	Reliability-Aware Hybrid Autoscaling: Integrating Forecasting and AIOps with LLM Guardrails, Sufiya

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	Rahemtulla, MUSTAFA DARAGHMEH, Dariush Ebrahimi
11:30-11:50	Shadow Technical Debt: The Dark Matter of Engineered Systems, Jason Pyeron
12:00-13:00	<u>Session 14</u> : Lunch Pajda Bistro-České mládeže 8, 400 01 Ústí nad Labem-město
13:00-15:00	<u>Session 15</u> : Presentations- Chair: Eva K Lee
13:00-13:20	Environmental Risk and Antimicrobial Resistance Potential of Antibiotics in Aquatic Systems: A Modeling Study of Ciprofloxacin and Doxycycline, Eva K Lee
13:20-13:40	A Reinforcement-learning-based Column Generation Algorithm for Integrated Operating Room Planning and Scheduling, Hossein Hashemi Doulabi
13:40-14:00	Extreme points and faces in the moment problem, Stephan Weis, Didier Henrion, Martin Kružík
14:00-14:20	Recent Advances in Clustering and Classification-based Algorithms for Big Data management, Emrah Arslan, Javad Hassannataj Joloudari, Hanieh Khosravi, Bitā Mesbahzadeh, Amir Mashmool, Roohallah Alizadehsani
14:20-14:50	Deep learning framework based on multi-source data fusion for real-time monitoring and prediction of air quality index in smart cities using CNN-LSTM hybrid architecture, Fatemeh Ashtari Gargari, Kimia Shirini, Sina Samadi Gharehveran, Siamak Pedrammehr, Roohallah Alizadehsani
14:50-15:10	Value of Information in Monte-Carlo Dataset Undersampling, Ghurumuruhan Ganesan, Ka Nam Lam, Priyanshu Gurjar
15:10	<u>Session 16</u> : Coffee break and social programme (Collaborative Research Discussion and Initiatives)

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Wednesday, June 3, 2026

08:00 – 16:00	<u>Session 17: Registration of participants (latter arrival)</u> – Ground Floor of the CPTO
09:00-10:00	<u>Session 18: Plenary Talk:</u> Value of Information and Entropic Optimal Transport- Roman Belavkin Chair: Panos M. Pardalos
10:00-10:30	<u>Session 19:</u> Coffee break
10:30-12:00	<u>Session 20:</u> Presentations- Chair: Roman Belavkin
10:30-10:50	Integrating Standards and Agile Workflows for a Multilayered Quality Assurance Approach in the Virtual Museum Framework, Olena Shlyakhetko, Yuriy Syerov, Natalia Kryvinska
10:50-11:10	A Framework for Behavioral and Linguistic Data Acquisition Using a VR-Based LLM Conversational Avatar for Older Adults with Cognitive Impairment, Pavel Beránek, Jan Čmuchař, Marie Kleckerová, Zbyšek Posel, Michal Vostrý
11:10-11:30	From Words to Games: Evaluating Large Language Models as Game-Theoretic Modelers, Michaela Tichá
11:30-11:50	A Note on Endogenous Information Costs in Rational Inattention via Convex Duality, Stefan Behringer
12:00-13:00	<u>Session 21:</u> Lunch Pajda Bistro-České mládeže 8, 400 01 Ústí nad Labem-město
13:00-22:00	<u>Session 22:</u> Excursion and Conference dinner Conference excursion to Děčín Castle followed by dinner at Nebíčko Restaurant. Departure: 14:45 (CPTO), Bus: 15:00. Castle visit: 16:00 (≈50 min). Dinner: 18:00–20:00. Return: 20:00 (bus to university).

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Thursday, June 4, 2026

09:00-10:00	Session 23: Plenary Talk: AI-Driven Labeling and Data Augmentation for ICU Monitoring-Zbyšek Posel Chair: Hossein Moosaei
10:00-10:30	Session 24: Coffee break
10:30-12:00	Session 25: Presentations and closing session- Chair: Hossein Moosaei
10:30-10:50	Missing values in Intracranial pressure and how to handle them, Michal Soukup
10:50-11:10	Applications of federated learning in optical coherence tomography image analysis, Ali Jafarizadeh, Hamidreza Ashayeri, Fatemeh Razmjooei, Mahdi Mohammadkhani, Roohallah Alizadehsani
11:10-11:30	Learning Optimal Decision Trees with MILP-Based Splitting and Greedy Decomposition, MOHAMED AHMED, Mujahid N. Syed
11:30-11:50	The dynamics of artificial intelligence in healthcare: From data silos and external validity issues to privacy-preserving and explainable solutions, Faezeh Darvishi, Hamidreza Ashayeri, Parisa Rostami, Hadi Vahedi, Ali Jafarizadeh, Hossein Moosaei, Roohallah Alizadehsani
11:50-12:10	Initial Evaluation of Stacked Hourglass Networks for Automated Cervical Vertebrae Keypoint Detection, Adéla Svítlová, Jaroslav Radimský, Petr Kubera, Jiří Škvára
12:10-12:20	Closing
12:20-13:00	Session 25- Lunch Pajda Bistro-České mládeže 8, 400 01 Ústí nad Labem-město