

Agenda of the 18th IPSSC

Day 1 (27th May)

Time	Activity	Presenting	Program Title
8.00-9.00			Registration
9.00-9.30			Welcome speech + Prof. Dr. Milena Horvat
09.30-10.30	Presentation session 1	1 Andrej Belcer	ICT A new multi-objective optimization algorithm using the covariance matrix adaptation evolution strategy
		2 Hamid Mohammadi	ICT Data Driven Approaches to Nanoparticle Protein Corona Formation
		3 Martin Perčinič	ICT Computational graphs for parameter estimation in symbolic regression
		4 Rok Cek	ICT Predicting electrical power in a grinding process
		5 Alja Kastrin	ICT Large language models for word sense disambiguation
		6 Usama Derbashi	ICT Towards Expert Local AI: Boosting Open-Weight Language Model Performance in Material Science
		7 Urša Kumelj	ICT Bi-objective Heterogeneous Green Vehicle Routing: Preliminary Investigation Using Weighted-Sum Scalarization and PyVRP
10.30-11.00			P1: Poster session with a coffee break
11.00-12.30			Talk: "Career Planning and Becoming a Great Scientist" - Richard Wheeler and Robert Zorec
12.30-14.00			Lunch
14.00-15.00	Presentation session 2	8 Jošt Tručl	NANO Colloidal Stabilisation of Magnetic Nanoplatelets in Low-polarity Solvents
		9 Adnan Kareem	NANO Magnetism of Na3Ni2BiO6 at high pressure and magnetic fields
		10 Lan Čuček Meršol	NANO Ferroelectric thin-film membranes for electrocaloric cooling of wearable devices (FEROCOOL)
		11 Reda Kardous	NANO Self-ferroelectric and piezoelectric responses driven by giant interfacial strain gradient in BiFeO3/BaTiO3 superlattices
		12 Maja Caf	NANO Magnetically Actuated Biocidal Nanorods for Biofilm Eradication
		13 Joyal Johnny	NANO Tri-metallic boride catalysts for efficient sea water electrolysis
		14 Subhashis Roop	NANO Influence of defects in Bi4Ti3O12 platelets on their transformation into SrTiO3 with preserved 2D morphology
		15 Alina Viktorovna Konstantinova	NANO De Novo design of anchors that bind to termini of designed protein fibers
16 Ivan Mitevski	ST Nanomaterials based genosensor with enzyme-assisted recycling amplification for pathogen identification		
15.00-15.30			P1: Poster session with a coffee break
15.30-16.30			Event: "Ask Me Anything" - Richard Wheeler and Robert Zorec
16.30-17.15	Presentation session 3	17 Musa Nicholas	NANO Magnetic-field-assisted printing of micro/nano devices for motor and sensing applications.
		18 Shafayet Yaseen	NANO Room temperature nucleation of confinement induced borophene seeds for next generation energy storage
		19 Lucija Drempetič	NANO Improving hexaferrite distribution in magnetoactive elastomers
		20 Andrii Hultiaiev	NANO Fascinating structural diversity and catalytic properties of CuCl-based coordination polymers
		21 Jošt Oblak	NANO Additive manufacturing of thick ceramic parts
		22 Nejc Flajšar	NANO Atomistic insights into chloride-induced copper removal at surface defects
23 Zhang Lin	NANO Hydroxylation-driven boron dissolution in Co-borides: a DFT study		
17.15-18.00			Talk: "AI Engineering at NLB" - Matej Kalc NLB
18.00-19.30			Dinner + Free time
19.30-			Getting together and social activities

Day 2 (28th May)

Time	Activity	Presenting	Program Title
7.30-9.00			Breakfast
9.00-10.00	Presentation session 4	24 Denica Kjorvezir	ICT Recipe Similarity Evaluation with Multi-View Metrics and Large Language Model Judges
		25 Jan Šifrer	ICT Enabling physically feasible manipulation of extended tools through redundancy-driven interaction
		26 Jan Jeričević	ICT Capability-guided execution for robust dual-arm robot cloth unfolding
		27 Sidorela Uku	ICT The Impact of Document Splitting on Question-Answering Systems Quality
		28 Maryam Gholami Shiri	ICT Graph instance landscapes: when structural similarity does (not) reflect shortest-path performance
		29 Christoforos Freris	ECO Detection of contaminants of emerging concern with targeted and non-targeted analysis applied to hair samples
		30 Klara Ogorevc	ECO Selective recovery of zinc using deep eutectic solvents
		31 Bruno Kovač	ECO Dynamics of air infiltration rates affected by meteorological conditions in a residential building
		32 Neža Kralj	ECO Identifying the sources of dark brown carbon in the Ljubljana region
		10.00-10.30	
10.30-11.45			Talk: "What is AI Really, and What are the Scientific Jobs of the Future" - Richard Wheeler
11.45-12.30			Event: "Student Pitch Session" - Richard Wheeler and Robert Zorec
12.30-14.00			Lunch
14.00-14.50	Presentation session 5	33 Eva Gregorc	ECO Development of 3D liver organoid model for in vitro genotoxicity testing
		34 Ivan Konjevič	ECO Electrochemical impedance spectroscopy for measuring surfactant-induced surface tension changes at a mercury electrode
		35 Kristjan Gašpirc	ECO MAP-Bio: A new paradigm for biofilm analysis by massively arrayed particle biofilms
		36 Antonia Talijančič	ECO Reducing sample heterogeneity contribution to measurement uncertainty in total and methylmercury determination in fish tissue
		37 Katja Ravnjak	ECO Multi-element and Lead Isotope Analysis of Contamination in Slovenia's Meža and Drava River Systems
		38 Miroslav Štrbac	ECO Isolation and aggregation of bacteria capable of reducing hexavalent chromium
		39 Mohammad Nausad	ECO Pesticide residues in honey, bees and pollen
14.50-15.10	Presentation session 6	40 Janko Stankič	ECO Genetic polymorphisms impacting urinary metabolites of polycyclic aromatic hydrocarbons in Slovene general population
		41 Nicola Paolinelli	ECO Deficit irrigation modulates the concentration of 3-sulfanylhexan-1-ol in Pinela (Vitis vinifera L.) wines
		42 Tomaž Mržljak	ECO XeF2 competing with weakly coordinating anions in the coordination sphere of metal complexes
		43 Sarra Trabelsi	ECO Mesoporosity modulations in carbon monoliths for enhanced adsorption of pharmaceutical contaminants
		44 Zala Sel	ECO Every oil has a unique signature
		45 Ekaterina Sokolova	ECO A Multi-Disciplinary Workflow for the Non-Destructive Restoration of Stone Heritage
		46 Filippos Karantoumanis	ECO Method development for separation and purification of Ag-111 from neutron irradiated Pd targets
16.00-			Dinner + Free time
17.00-			Winery tour

Day 3 (29th May)

Time	Activity	Presenting	Program Title
7.30-9.00			Breakfast
9.00-9.45			Talk: "Vaccum and Analytical Technologies at KemoLab" - Darko Delgalo, KemoLab
9.45-10.30	Presentation session 7	47 Tina Zavodnik	NANO Full capsids matter: towards optimized rAAV production with focus on vector genome integrity
		48 Pia Marinček	NANO No spore left uncultured: challenging fungi and dPCR assays
		49 Mikhail Kleimenov	ECO High-resolution anthropogenic benzo[a]pyrene emission inventory for Slovenia for chemistry transport modelling
		50 Neža Praček	ST Hidden in the water: monitoring of avian influenza viruses in environmental waters
		51 Mitja Koderman	ST Electrocatalytically enhanced nanobody-based electrochemical biosensor for prostate-specific antigen detection
10.30-11.00			P3: Poster session with a coffee break
11.00-11.45	Presentation session 8	52 Alberto Giribaldi	ST Comprehensive investigation of direct piezoelectric response of BiFeO3-BaTiO3 ceramics using a custom-made dynamic Berlincourt press
		53 Lana Vogrinec	ST Wastewater effluent shapes river viral communities
		54 Melanija Hadolin	ST Comparison of carbon-based screen-printed electrodes for detection of antibiotic sulfamethoxazole
		55 Vito Ham	ST Detection of genotoxic effects of xenobiotics using an advanced in vitro 3D hepatic cell model
		56 Kamil Abdulkarim	ST Development of Ni(OH)2/NiOOH-Polyaniline Electrochemical Sensors for Glucose Detection in Artificial Sweat
11.45-12.30			P3: Poster session with a coffee break
12.30-13.00			Talk: "Public Speaking in Science" - Rok Novak
13.00-13.00			P3: Poster session with a coffee break
13.00-14.00			Prof. Dr. Aleksander Zidanšek + Closing Remarks and Awards Ceremony

P1: Poster session

1	Andrej Belcer	ICT	A new multi-objective optimization algorithm using the covariance matrix adaptation evolution strategy
2	Hamid Mohammadi	ICT	Data Driven Approaches to Nanoparticle Protein Corona Formation
3	Martin Perčinić	ICT	Computational graphs for parameter estimation in symbolic regression
4	Rok Cek	ICT	Predicting electrical power in a grinding process
5	Alja Kastrin	ICT	Large language models for word sense disambiguation
6	Usama Derbashi	ICT	Towards Expert Local AI: Boosting Open-Weight Language Model Performance in Material Science
7	Urša Kumelj	ICT	Bi-objective Heterogeneous Green Vehicle Routing: Preliminary Investigation Using Weighted-Sum Scalarization and PyVRP
8	Vanja Anželovikj	NANO	Bioactive biomaterials based on hydroxyapatite doped with multiple ions for bone tissue regeneration
9	Lucija Bučar	NANO	Inverted pyramid evolution on Ge (001) surface via thermal etching
10	Federica Trifino	NANO	Conjugation of neuropeptide Y-analogues to erythrocyte membrane vesicles for active targeting purposes
11	Beatrice Massari	NANO	Development of a drug delivery system inspired by the red blood cell mimicry
12	Ana Koblar	NANO	Influence of hot deformation on corrosion behaviour and zirconium conversion coating formation of AlSi10Mg alloy
13	David Fabijan	NANO	Local lattice parameters through sub-pixel refinement of STEM images
14	Subhashis Rooj	NANO	Influence of defects in Bi4Ti3O12 platelets on their transformation into SrTiO3 with preserved 2D morphology
15	Alina Viktorovna Konstantinova	NANO	De Novo design of anchors that bind to termini of designed protein fibers
16	Musa Nicholas	NANO	Magnetic-field-assisted printing of micro/nano devices for motor and sensing applications.
17	Shafayet Yaseen	NANO	Room temperature nucleation of confinement induced borophene seeds for next generation energy storage
18	Lucija Drempetić	NANO	Improving hexaferrite distribution in magnetoactive elastomers
19	Andrii Hultiaiev	NANO	Fascinating structural diversity and catalytic properties of CuCl-based coordination polymers
20	Nejc Flajšar	NANO	Atomistic insights into chloride-induced copper removal at surface defects
21	Zhang Lin	NANO	Hydroxylation-driven boron dissolution in Co-borides: a DFT study
22	Milica Pena	NANO	Evaluation of Molecular Gas Transport Models in Microcapillaries
23	Viktorii Kukharuk	ECO	Reactivity of [PhC(NtBu)2]Si(=Se)Cl toward halogenating reagents

P2: Poster session

1	Denica Kjørvezir	ICT	Recipe Similarity Evaluation with Multi-View Metrics and Large Language Model Judges
2	Jan Šifrer	ICT	Enabling physically feasible manipulation of extended tools through redundancy-driven interaction
3	Jan Jeričević	ICT	Capability-guided execution for robust dual-arm robot cloth unfolding
4	Maryam Gholami Shiri	ICT	Graph instance landscapes: when structural similarity does (not) reflect shortest-path performance
5	Cathrine Terro	ECO	Advanced Saffron Origin Authentication Through Machine Learning and Isotopic-Elemental Fingerprinting
6	Brina Pavlovic	ECO	Geographical origin classification of fish using isotopic and elemental signatures with machine learning
7	Marko Marohnić	ST	Comparison of different viral enrichment methods for compost virome analysis
8	Črtomir Perharič Bailey	ECO	Variable sinking speed modelling of gelatinous zooplankton
9	Žan Zakošek	NANO	Hydrogen bond pathways for magnetic exchange in mononuclear copper(II) complexes
10	Boštjan Gec	ICT	Exact equation discovery from implicit, rational, and polynomial data
11	Antonia Taližančič	ECO	Reducing sample heterogeneity contribution to measurement uncertainty in total and methylmercury determination in fish tissue
12	Katja Ravnjak	ECO	Multi-element and Lead Isotope Analysis of Contamination in Slovenia's Meža and Drava River Systems
13	Mohammad Nausad	ECO	Pesticide residues in honey, bees and pollen
14	Janko Stankič	ECO	Genetic polymorphisms impacting urinary metabolites of polycyclic aromatic hydrocarbons in Slovene general population
15	Nicola Paolinelli	ECO	Deficit irrigation modulates the concentration of 3-sulfanylnhexan-1-ol in Pinela (Vitis vinifera L.) wines
16	Tomaž Mržljak	ECO	XeF2 competing with weakly coordinating anions in the coordination sphere of metal complexes
17	Sarra Trabelsi	ECO	Mesoporosity modulations in carbon monoliths for enhanced adsorption of pharmaceutical contaminants
18	Zala Sel	ECO	Every oil has a unique signature
19	Ekaterina Sokolova	ECO	A Multi-Disciplinary Workflow for the Non-Destructive Restoration of Stone Heritage
20	Igor Mendek	ICT	Swarmalators: the connection between synchronization and collective motion

P3: Poster session

1	Alberto Giribaldi	ST	Comprehensive investigation of direct piezoelectric response of BiFeO3-BaTiO3 ceramics using a custom-made dynamic Berlincourt press
2	Tina Zavodnik	NANO	Full capsids matter: towards optimized rAAV production with focus on vector genome integrity
3	Pia Marinček	NANO	No spore left uncounted: challenging fungi and dPCR assays
4	Aleksander Učakar	NANO	TGA/DSC Analysis of Atmospheric and Graphite Effects on SFO Sintering
5	Neža Praček	ST	Hidden in the water: monitoring of avian influenza viruses in environmental waters
6	Ali Eralp Birer	NANO	Formation and Characterization of TiO2 Nanotubes on DED-LB and Wrought Ti-6Al-4V Alloys with Copper Addition
7	Andrea Belamarić	ST	Survival and transmission risk of stable plant viruses in insect frass used as fertilizer
8	Daša Čebulj	NANO	Functionalized erythrocyte membrane vesicles as a novel drug delivery system for breast cancer treatment
9	Lana Vogrinec	ST	Wastewater effluent shapes river viral communities
10	Melanija Hadolin	ST	Comparison of carbon-based screen-printed electrodes for detection of antibiotic sulfamethoxazole
11	Vito Ham	ST	Detection of genotoxic effects of xenobiotics using an advanced in vitro 3D hepatic cell model
12	Kamil Abdulkareem	ST	Development of Ni(OH)2/NiOOH-Polyaniline Electrochemical Sensors for Glucose Detection in Artificial Sweat
13	Karina Enriquez Maruri	NANO	Ascorbic acid-assisted green hydrothermal synthesis of ZnO thin films for enhanced photocatalytic performance
14	Ivana Podlipnik	NANO	Modelling oxygen island formation on aluminum surfaces with on-lattice kinetic Monte Carlo
15	Katarina Meštrović	NANO	Artery-specific effects of cGMP on Ca2+ signaling: a model-based comparison of pulmonary and mesenteric arteries
16	Nejc Suban	ST	Preparation of polyimide thick films using powder aerosol deposition
17	Maria Daniela Serrano Larrea	NANO	Synthesis, characterization, and electrochemical evaluation of CuO-Decorated Carbon for Mg-S Batteries
18	Ivan Raič	NANO	Ammonia Synthesis using Magnetic Co-Ni@CeO2 Nanocomposite Catalysts: Synthesis, Activity and Stability under High-Pressure Conditions
19	Tomaž Ivančič	NANO	Effect of surface oxidation of SiC powders on the properties of photocurable suspensions