DATE & VENUE

May 30–June 3, 2022 (Mon–Fri)
Faculty of Electrical Engineering, Czech Technical University in Prague
Technická 2, Prague 6, Czech Republic
Room No. C3-135

ORGANIZERS

Faculty of Electrical Engineering, Czech Technical University in Prague

ORGANIZING COMMITTEE

Zdeněk Mihula (Chair)
Hana Turčinová
Luboš Pick

**FACULTY
OF ELECTRICAL
ENGINEERING
CTU IN PRAGUE**

ORGANIZING SECRETARIAT

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SOCIAL PROGRAM

WEDNESDAY, June 1, 2022

Sightseeing tour of Prague (walking tour)

14:30   Meeting point at the conference venue
14:30–17:30   Walking tour
              Places of interest: Prague Castle, Nerudova street, Charles Bridge,
              Malostranské Square, Old Town of Prague, Old Town Square

The tour will finish in the Restaurant & Club Lávka.

17:30–22:00   Conference dinner
              Restaurant & Club Lávka
              Novotného lávka 1, Prague 1

HOW TO GET TO DIRECTLY TO THE DINNER

20 min from "Dejvická" station.
2 stops by metro **Line A** **from "Dejvická" station to Staroměstská station**.
Restaurant & Club Lávka is located 500m from the station
(1 stop by Tram to "Karlovy lázně" stop).

SCIENTIFIC PROGRAM

MONDAY, MAY 30, 2022

8:00	**Registration**
8:30	**Opening ceremony**
9:00–9:50	**Invited lecture** **Symmetric gradient Orlicz-Sobolev spaces** *Andrea Cianchi	University of Florence*
10:00–10:50	**Invited lecture** **Strongly nonlinear multiplicative inequalities with elliptic operators** *Agnieszka Kałamajska	University of Warsaw*
10:50–11:20	**Coffee break**
11:20–12:10	**Invited lecture** **Supercaloric functions for the parabolic p-Laplace equation** *Juha Kinnunen	Aalto University*
12:10–14:30	**Lunch break**
14:30–15:20	**Invited lecture** **Weighted inequalities involving Hardy operators,** **new results and applications** *Amiran Gogatishvili	Institute of Mathematics, CAS*
15:20–15:50	**Coffee break**
15:50–16:05	**Marcinkiewicz-Zygmund inequalities for scattered and random data on the q-sphere** *Thomas Jahn	TU Chemnitz*
16:10–16:25	**Rate-optimal sparse approximation of compact break-of-scale embeddings** *Janina Hübner	Ruhr University Bochum*
16:30–16:45	**Regularity results for parabolic PDEs in scale of Besov and weighted Sobolev spaces** *Flóra Szemenyei	Friedrich-Alexander-Universität Erlangen-Nürnberg*
16:50–17:05	**Optimal domains for the Cesaro operator minus Identity** *Sorina Barza	Karlstad University*
17:10–17:25	**Monotonicity in ordered measure spaces** *Alejandro Santacruz Hidalgo	Western University, London, ON*

17:30–17:45	**Existence of parabolic minimizers to the total variation flow on metric measure spaces** *Cintia Pacchiano	Aalto University*
17:50–18:05	**Hausdorff dimension of the critical set for violation of the Lusin N condition** *Tomáš Roskovec	University of South Bohemia in Ceske Budejovice, University of Hradec Kralove*

TUESDAY, MAY 31, 2022

9:00–9:50	**Invited lecture** **Strongly nonlinear multiplicative inequalities with elliptic operators** *Agnieszka Kałamajska	University of Warsaw*
10:00–10:50	**Invited lecture** **Symmetric gradient Orlicz-Sobolev spaces** *Andrea Cianchi	University of Florence*
10:50–11:20	**Coffee break**
11:20–12:10	**Invited lecture** **Supercaloric functions for the parabolic p-Laplace equation** *Juha Kinnunen	Aalto University*
12:10–14:30	**Lunch break**
14:30–15:20	**Invited lecture** **Gradient flows in metric spaces in applications to solid mechanics** *Martin Kružík	Institute of Information Theory and Automation, CAS*
15:20–15:50	**Coffee break & poster session**
15:50–16:05	**Weak limit of homeomorphisms in $W^{1,n-1}$ and (INV) condition** *Anna Doležalová	Charles University*
16:10–16:25	**3D Schrödinger equations with singularities** *Nevena Dugandžija	University of Novi Sad*
16:30–16:45	**The Wolff-Denjoy type theorem for semigroups of nonexpansive mappings** *Aleksandra Huczek	Pedagogical University of Krakow*
16:50–17:05	**Oscillations in Triebel-Lizorkin-Morrey spaces** *Markus Weimar	Ruhr University Bochum*
17:10–17:25	**Characterising mixed Besov spaces with the half-period cosine basis** *Kai Lüttgen	TU Chemnitz*

17:30–17:45   **Microlocal defect distributions related to Hörmander spaces**
Ivana Vojnovic| University of Novi Sad

17:50–18:05   **Optimal range for the Hilbert transform among fully symmetric spaces**
Kanat Tulenov | Institute of Mathematics and Mathematical Modeling, Al-Farabi Kazakh National University

WEDNESDAY, JUNE 1, 2022

9:00–9:50   **Invited lecture**
Weighted inequalities involving Hardy operators, new results and applications
Amiran Gogatishvili | Institute of Mathematics, CAS

10:00–10:50   **Invited lecture**
Gradient flows in metric spaces in applications to solid mechanics
Martin Kružík | Institute of Information Theory and Automation, CAS

10:50–11:20   **Coffee break**

11:20–12:10   **Invited lecture**
Morrey smoothness spaces: A new approach
Dorothee D. Haroske | Friedrich Schiller University

12:10–14:30   **Lunch break**

14:30   **Sightseeing tour of Prague (walking tour)**

17:30   **Conference dinner**

THURSDAY, JUNE 2, 2022

9:00–9:50   **Invited lecture**
Multilinear inequalities with singular kernels
Lenka Slavíková | Charles University

10:00–10:50   **Invited lecture**
Regularity of paths of the Wiener process and of the Brownian sheet
Jan Vybíral | Czech Technical University in Prague

10:50–11:20   **Coffee break**

11:20–12:10   **Invited lecture**
Morrey smoothness spaces: A new approach
Dorothee D. Haroske | Friedrich Schiller University

12:10–14:20	**Lunch break**

14:20–14:35	**Hermite-Hadamard type inequalities and Fejer type inequalities with applications** *Mihaela Ribičić Penava | University of Osijek*
14:40–14:55	**On Hausdorff and quasi-Hausdorff operators** *Pankaj Jain | South Asian University*
15:00–15:15	**A numerical method for solving first order fuzzy initial value problems** *Qamar Dallashi | United Arab Emirates University*

15:20–15:50	**Coffee break**

15:50–16:05	**The space of Hardy-weights for quasilinear equations: Maz'ya-type characterization and sufficient conditions for existence of minimizers** *Ujjal Das | Technion-Israel Institute of Technology, Haifa, Israel*
16:10–16:25	**Optimal Gagliardo-Nirenberg interpolation inequality for rearrangement invariant spaces** *Filip Soudský | Technical University of Liberec*
16:30–16:45	**Inhomogeneous cancellation conditions for local Hardy spaces and applications** *Galia Dafni | Concordia University*
16:50–17:05	**Faber-Schauder representations for limiting (mixed) Besov spaces and consequences for optimal recovery** *Serhii Stasyuk | TU Chemnitz*
17:10–17:25	**An efficient numerical method for locating zeros of polynomial systems using multi-resultant** *Muhammed Syam | United Arab Emirates University*
17:30–17:45	**End-point norm estimates for Hardy operator** *Bizuneh Demissie | Karlstad University*
17:50–18:05	**Derivations of flow of quantum genetic Lotka-Volterra algebras on M2(C)** *Sondos Syam| United Arab Emirates University*
18:10–18:25	**Refinements of some classical inequalities via superquadraticity** *Markos Fisseha Yimer | Karlstad University*

FRIDAY, JUNE 3, 2022

9:00–9:50 **Invited lecture**
Multilinear inequalities with singular kernels
Lenka Slavíková | Charles University

10:00–10:50 **Invited lecture**
Regularity of paths of the Wiener process and of the Brownian sheet
Jan Vybíral | Czech Technical University in Prague

10:50–11:20 **Coffee break**

11:20–12:10 **Closing ceremony**