Workshop on
“Synthetic Curvature Bounds for Non-Smooth Spaces: Beyond Finite Dimension”
May 21 - 24, 2024
organized by
Lorenzo Dello Schiavo (ISTA, Klosterneuburg), Christian Ketterer (ALU Freiburg),
Chiara Rigoni (U of Vienna)

• Tuesday, May 21st, 2024
  09:00 – 09:30 Registration & Welcome
  09:30 – 10:15 Karl-Theodor Sturm (U Bonn)
  Wasserstein Diffusion on Multidimensional Spaces
  10:20 – 10:50 Coffee Break
  10:50 – 11:35 Nageswari Shanmugalingam (U of Cincinnati)
  Discrete approximations of metric measure spaces and nonlocal energies
  11:40 – 12:25 Nicola Gigli (SISSA, Trieste)
  Trading linearity for ellipticity - a novel approach to global Lorentzian geometry
  12:30 – 14:00 Lunch Break
  14:00 – 14:45 Shouhei Honda (Tohoku U)
  Gromov-Hausdorff stability of tori under Ricci and integral scalar curvature bounds
  14:50 – 15:35 Eva Kopfer (HCM, Bonn)
  Homogenisation of discrete dynamical optimal trans- port
  15:40 – 16:10 Coffee Break
  16:10 – 16:55 Raquel Perales (CIMAT, Guanajuato)
  Rigidity of mass-preserving 1-Lipschitz maps from integral current spaces into Euclidean space

• Wednesday, May 22nd, 2024
  09:00 – 09:45 Andrea Pinamonti (U of Trento)
  The Bernstein problem in Sub-Riemannian Heisenberg groups: Origins and new developments
  09:50 – 10:20 Coffee Break
  10:20 – 11:05 Davide Barilari (U of Padova)
  Unified synthetic Ricci curvature lower bounds for Riemannian and sub-Riemannian structures
  11:10 – 11:55 Maria (Masha) Gordina (U of Connecticut)
  Dimension-independent functional inequalities on sub-Riemannian manifolds
  12:00 – 13:30 Lunch Break
  13:30 – 14:15 Shin-ichi Ohta (U Osaka)
  Integral Varadhan formula for nonlinear heat flow
14:20 – 15:05 Andrea Mondino (U of Oxford)
A sharp isoperimetric-type inequality for Lorentzian spaces satisfying time-like Ricci lower bounds

15:10 – 15:40 Coffee Break

15:40 – 16:25 Clemens Sämann (U of Oxford)
TBA

18:30 – 22:00 Conference Dinner

• Thursday, May 23rd, 2024
09:00 – 09:45 Giuseppe Savaré (U Bocconi, Milano)
Sobolev spaces in extended metric-topological measure spaces

09:50 – 10:20 Coffee Break

10:20 – 11:05 Giorgio Stefani (SISSA, Trieste)
Sub-Riemannian manifolds are not CD

11:10 – 11:55 Kazuhiro Kuwae (Fukuoka U)
Riesz transforms for Dirichlet spaces tamed by distributional curvature lower bounds

12:00 – 13:30 Lunch Break

13:30 – 14:15 Fernando Galaz-García (Durham U)
TBA

14:20 – 15:05 David Tewodrose (Vrije U Brussels)
Kato meets Bakry-Emery

15:10 – 15:40 Coffee Break

15:40 – 16:25 Kohei Suzuki (Durham U)
Dyson Brownian Motion as a Wasserstein Gradient Flow

• Friday, May 24th, 2024
09:00 – 09:45 Patricia Alonso Ruiz (TAMU, College Station)
Looking for p-energy forms in Cheeger spaces.

09:50 – 10:20 Coffee Break

10:20 – 11:05 Elia Bruè (U Bocconi, Milano)
TBA

11:10 – 11:55 Daniele Semola (ETH Zurich)
Sharp concavity of the isoperimetric profile under lower Ricci bounds: recent results and open questions

12:00 – 12:30 Lunch Break

13:30 – 14:15 Qin Deng (MIT, Cambridge)
TBA

14:20 – 15:05 Danka Lučić (JYU, Jyväskylä)
Plans, derivations, and currents in metric measure spaces

15:10 – 15:40 Coffee Break

15:40 – 16:25 Mattia Magnabosco (U of Oxford)
Failure of the curvature-dimension condition in sub-Finsler manifolds

All talks take place at ESI Boltzmann Lecture Hall!