

Workshop on
“Geometric and Asymptotic Group Theory with Applications 2023 - Groups and
Dynamics”

July 17 - 21, 2023

organized by

Christopher Cashen (U of Vienna), Javier de la Nuez González (KIAS, Seoul), Alexandra
Edletzberger (U of Vienna), Yash Lodha (U of Hawaii, Honolulu)

• Monday, July 17th, 2023

09:00 – 09:30 **Registration & Welcome**

09:30 – 10:15 **Pierre Mathieu (Aix-Marseille)**

TBA

10:15 – 11:00 **Coffee break**

11:00 – 11:45 **Delaram Kahrobaei (CUNY, New York)**

Post-quantum Blockchains using hash functions using higher dimensional special linear groups over finite fields as platforms

12:00 – 14:00 **Lunch break**

14:00 – 14:40 **Tomasz Z. Szarek (BCAM, Bilbao)**

Pointwise ergodic theorems on nilpotent groups

14:00 – 14:40 **Donggyun Seo (Seoul National U)**

*RAAGs generated by Dehn twists with uniform intersection number
Parallel session at the Schrödinger Lecture Hall*

14:50 – 14:40 **Arman Darbinyan (Vienna)**

TBA

14:50 – 15:30 **Harry Petyt (U Oxford)**

Obstructions to coarse cubulation

Parallel session at the Schrödinger Lecture Hall

15:30 – 16:00 **Coffee break**

16:00 – 16:40 **Michele Triestino (UB)**

Actions on the circle with at most N fixed points

16:00 – 16:40 **Matt Cordes (ETH Zürich)**

*Coxeter groups with (locally)-connected Morse boundary
Parallel session at the Schrödinger Lecture Hall*

- **Tuesday, July 18th, 2023**

09:00 – 09:45 **Volodymyr Nekrashevych (TAMU, College Station)**

Topological and conformal dimensions of self-similar groups

10:00 – 10:45 **Tom Hutchcroft (Cal Tech)**

TBA

10:45 – 11:15 **Coffee break**

11:15 – 12:00 **Quick Talks**

11:17 – 11:27 **Henry Bradford (U Cambridge)**

Equations with constants in some hyperbolic and linear groups

11:28 – 11:38 **Davide Spriano (Oxford)**

11:39 – 11:49 **Hanna Oppelmayer (U of Innsbruck)**

Amenable IRAs

11:50 – 12:00 **Kevin Li (Regensburg)**

12:00 – 14:00 **Lunch break**

14:00 – 14:40 **James Hyde (U of Copenhagen)**

Finitely Presented Simple Groups of Homeomorphisms of the Reals

14:00 – 14:40 **Ariel Yadin (Ben-Gurion)**

Metric-functional boundary of Cayley graphs

Parallel session at the Schrödinger Lecture Hall

14:50 – 15:30 **Francesco Fournier-Facio (ETH Zürich)**

Ulam stability of Thompson groups

14:50 – 15:30 **Adam Dor-On (Haifa U.)**

Ratio-limit boundaries for random walks on relatively hyperbolic groups.

Parallel session at the Schrödinger Lecture Hall

15:30 – 16:00 **Coffee break**

16:00 – 16:40 **Javier de la Nuez González (KIAS, Seoul)**

Minimality of the compact-open topology on diffeomorphism and homeomorphism groups

16:00 – 16:40 **Ecaterina Sava-Huss (U of Innsbruck)**

Abelian sandpile Markov chains

Parallel session at the Schrödinger Lecture Hall

- **Wednesday, July 19th, 2023**

09:00 – 09:45 **Richard Sharp (U Warwick)**

A non-symmetric Kesten criterion for random walks on groups

10:00 – 10:45 **Alexander Stottmeister (ITP Hannover)**

Operator Algebras, the Renormalization Group, and Jones' Actions of Thompson's Groups

10:45 – 11:15 **Coffee break**

11:00 – 11:45 **Poster Session**

11:45 – 12:30 **Problem Session**

12:30 – 16:40 **Free collaboration time/time to solve the problems from the Problem Session**

- **Thursday, July 20th, 2023**

09:00 – 09:45 **Collin Bleak (U of St Andrews)**

Embeddings into Finitely Presented Simple Groups

10:00 – 10:45 **Clara Löh (U Regensburg)**

Vanishing of logarithmic torsion homology growth via dynamics

10:45 – 11:15 **Coffee break**

11:15 – 12:00 **Nicolás Matte Bon (Institute Camille Jordan, U Lyon)**

Liouville property for self-similar groups via conformal dimension

12:00 – 14:00 **Lunch break**

14:00 – 14:40 **Rémi Coulon (U Rennes 1)**

Equations in periodic groups

14:00 – 14:40 **Joseph Maher (CUNY, New York)**

Singularity of measures for Cannon-Thurston maps

Parallel session at the Schrödinger Lecture Hall

14:50 – 15:30 **Jean Lécureux (Orsay) Jean Lécureux (U Paris-Saclay)**

“Homogeneous” measures for \tilde{A}_2 buildings and a normal subgroup theorem

14:50 – 15:30 **Rhiannon Dougall (Durham)**

TBA Parallel session at the Schrödinger Lecture Hall

15:30 – 16:00 **Coffee break**

16:00 – 16:40 **Samuel Tapie (U Lorraine)**

Entropy at infinity in negative curvature and applications

16:00 – 16:40 **Talia Fernos (UNC Greensboro)**

TBA Parallel session at the Schrödinger Lecture Hall

• **Friday, July 21st, 2023**

10:00 – 10:45 **Pim van der Hoorn (TU Eindhoven)**

Convergence of Ollivier-Ricci curvature in random geometric graphs on Riemannian manifolds

10:45 – 11:15 **Coffee break**

11:15 – 12:00 **Kasra Rafi (Toronto)**

TBA

12:00 – 14:00 **Lunch break**

14:00 – 14:40 **Cagri Sert (Zurich)**

TBA

14:00 – 14:40 **Yulan Qing (Fudan)**

Boundary of Groups

Parallel session at the Schrödinger Lecture Hall

14:50 – 15:30 **Thomas Koberda (U Virginia)**

First order theory of homeomorphism groups of compact manifolds

14:50 – 15:30 **Ilya Gekhtman (Technion Haifa)**

Stationary random subgroups and injectivity radius of hyperbolic manifolds

Parallel session at the Schrödinger Lecture Hall

15:30 – 16:00 **Coffee break**

The main sessions take place at ESI Boltzmann Lecture Hall. The parallel sessions at the ESI Schrödinger Lecture Hall! Zoom coordinates for attending online are available on request by sending an email to secr@esi.ac.at latest by Friday, July 14, 2 p.m. After registering as an online-participant zoom coordinates will be provided.