

TUOMAS SAHLSTEN

List of publications

February 25, 2025

SUBMITTED PREPRINTS

- (1) S. Baker, O. Khalil, T. Sahlsten: *Fourier decay from L^2 flattening*
Preprint at <https://arxiv.org/abs/2407.16699>, July 2024
- (2) S. Baker, T. Sahlsten: *Spectral gaps and Fourier dimension for self-conformal sets with overlaps*
Preprint at <https://arxiv.org/abs/2306.01389>, June 2023

PEER-REVIEWED SCIENTIFIC ARTICLES

- (3) T. Sahlsten, C. Stevens: *Fourier transform and expanding maps on Cantor sets*
American Journal of Mathematics (2024), Volume 146, Number 4, pp. 945–982
- (4) E. Le Masson, T. Sahlsten: *Quantum ergodicity for Eisenstein series on hyperbolic surfaces of large genus*
Mathematische Annalen (2024), Volume 389, pages 845–898
- (5) B. Kuca, T. Orponen, T. Sahlsten: *On a continuous Sárközy type problem*
International Mathematics Research Notices (IMRN) (2023), Volume 2023, Issue 13, Pages 11291–11315
- (6) J. Li, T. Sahlsten: *Trigonometric series and self-similar sets*
Journal of the European Mathematical Society (2022), 24(1), 341–368
- (7) G. Gilmore, E. Le Masson, T. Sahlsten, J. Thomas: *Short geodesic loops and L^p norms of eigenfunctions on large genus random surfaces*
Geometric and Functional Analysis (GAFA) (2021), 31, 62–110
- (8) I. Kangasniemi, Y. Okuyama, P. Pankka, T. Sahlsten: *Entropy in uniformly quasiregular dynamics*
Ergodic Theory and Dynamical Systems (2021), 41(8), 2397–2427
- (9) J. Li, T. Sahlsten: *Fourier transform of self-affine measures*
Advances in Mathematics (2020), 374, 107349
- (10) B. Li, T. Sahlsten, T. Samuel, W. Steiner: *Denseness of intermediate β -shifts of finite type*
Proceeding of the American Mathematical Society (2019), 147, 2045–2055
- (11) T. Jordan, S. Munday, T. Sahlsten: *Stability and perturbations of countable Markov maps*
Nonlinearity (2018), 31, No. 4, 1351–1377.
- (12) J. Fraser, T. Sahlsten: *On the Fourier analytic structure of the Brownian graph*
Analysis & PDE (2018), 11, 115–132
- (13) E. Le Masson, T. Sahlsten: *Quantum ergodicity and Benjamini-Schramm convergence of hyperbolic surfaces*
Duke Mathematical Journal (2017), 166, no. 18, 3425–3460.
- (14) T. Jordan, T. Sahlsten: *Fourier transforms of Gibbs measures for the Gauss map*
Mathematische Annalen (2016), 364, 3–4, pp 983–1023

- (15) B. Li, T. Sahlsten, T. Samuel: *Intermediate β -shifts of finite type*
Discrete and Continuous Dynamical Systems (2016), 36(1), 323-344.
- (16) A. Käenmäki, P. Shmerkin: *Dynamics of the scenery flow and geometry of measures*
Proceedings of the London Mathematical Society (2015) 110, no. 5, 1248-1280
- (17) A. Käenmäki, T. Sahlsten, P. Shmerkin: *Structure of distributions generated by the scenery flow*
Journal of the London Mathematical Society (2015) 91, no. 2, 464-494
- (18) T. Sahlsten: *Tangent measures of typical measures*
Real Analysis Exchange (2015), 40, no. 1, pp. 53-80.
- (19) A. Ferguson, J. Fraser, T. Sahlsten: *Scaling scenery of $(\times m, \times n)$ invariant measures*
Advances in Mathematics (2015), 268, 564-602
- (20) J. Fraser, T. Orponen, T. Sahlsten: *On Fourier analytic properties of graphs*
International Mathematics Research Notices (IMRN) (2014): 2730-2745
- (21) T. Sahlsten, P. Shmerkin, V. Suomala: *Dimension, entropy, and the local distribution of measures*
Journal of the London Mathematical Society (2013) 87 (1): 247-268
- (22) T. Orponen, T. Sahlsten: *Tangent measures of non-doubling measures*
Mathematical Proceedings of the Cambridge Philosophical Society (2012) 152: 555-569
- (23) T. Orponen, T. Sahlsten: *Radial projections of rectifiable sets*
Annales Academiæ Scientiarum Fennicæ Mathematica (2011) 36: 677-681

PEER-REVIEWED CONFERENCE PROCEEDINGS

- (24) T. Sahlsten: *Fourier transforms and iterated function systems*
Recent Developments in Fractals and Related Fields, Conference on Fractals and Related Fields IV, Ile de Porquerolles, France, 2022 (2025), to appear