

## PUBLICATIONS LIST

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### Significant publications

#### In print or to appear

- G. Amir, I. Corwin, J. Quastel. Probability distribution of the free energy of the continuum directed random polymer in  $1 + 1$  dimensions. *Comm. Pure Appl. Math.*, to appear in May 2011.
- G. Ben Arous, I. Corwin. Current fluctuations for TASEP: A proof of the Prähofer-Spohn conjecture. *Ann. Prob.*, to appear in January 2011.
- I. Corwin, P.L. Ferrari, S. Péché. Limit processes for TASEP with shocks and rarefaction fans. *J. Stat. Phys.* **140**:232-267 (2010).

#### Submitted

- I. Corwin, J. Quastel. Universal distribution of fluctuations at the edge of the rarefaction fan.
- I. Corwin, P.L. Ferrari and S. Péché. Universality of slow decorrelation in KPZ growth.

#### In preparation

- T. Alberts, I. Corwin, J. Quastel. Continuum limits of directed polymers with pinning in the intermediate disorder regime.
- G. Amir, I. Corwin, J. Quastel. Weakly asymmetric limit of the simple exclusion process: The effect of geometry, initial data and boundary conditions on the limiting KPZ equation.
- A. Auffinger and I. Corwin. Constrained Brownian motion versus KPZ line-ensembles.
- I. Corwin. Thesis: The Kardar-Parisi-Zhang equation and universality class.
- I. Corwin. The corner growth process with inhomogeneous external sources.
- I. Corwin and A. Hammond. The Brownian Gibbs property for line ensembles: The multi-line Airy Process.
- I. Corwin, N. O'Connell, T. Seppäläinen, N. Zygouras. The tropical RSK correspondence and discrete polymers.

### Review articles or published lecture notes

- I. Corwin. Lecture notes on the Kardar-Parisi-Zhang equation (based on lectures at U.C. Berkeley). In preparation.
- I. Corwin. Random matrix theory and growth processes (invited review article for new journal *Random Matrices: Theory and Applications*; Zhidong Bai and Yang Chen Co-Editors in Chief). In preparation.

### Undergraduate Thesis

- I. Corwin. Automorphic distributions from cocompact Fuchsian groups. Harvard honors thesis, with Professor W. Schmid (2006).

**Earlier  
publications**

- A. Othman, I. Corwin. Time inconsistency and uncertainty aversion in prediction markets. *Third Workshop on Prediction Markets, in conjunction with the ACM Conference on Electronic Commerce (EC)* (2008).
- J. Corneli, I. Corwin, S. Hurder, V. Sesum, Y. Xu, E. Adams, D. Davis, M. Lee, R. Visocchi. Double bubbles in Gauss space and spheres. *Houston J. of Math.* **31** (2008).
- E. Adams, I. Corwin, D. Davis, M. Lee, R. Visocchi. Isoperimetric regions in Gauss sectors. *Rose Hulman Undergrad. J. Math.* **8** (2007).
- I. Corwin, S. Hurder, V. Sesum, Y. Xu. Differential geometry of manifolds with density. *Rose Hulman Undergraduate. J. Math.* **7** (2006).
- I. Corwin, S. Ganatra, N. Rozenblyum. A single-car interaction based model of traffic for a highway toll-plaza. *UMAP Journal* **26** (2005).
- I. Corwin, S. Ganatra, N. Rozenblyum. A myopic aggregate-decision model for reservation systems in amusement parks. *UMAP Journal* **25** (2004).
- I. Corwin, S. Ganatra, N. Rozenblyum. A time-independent model of box safety for stunt motorcyclists. *UMAP Journal* **24** (2003).