

PUBLICATIONS LIST

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In print or to appear

1. G. Ben Arous, I. Corwin. Current fluctuations for TASEP: A proof of the Prähofer-Spohn conjecture. *Ann. Probab.*, **39**:104–138 (2011).
2. I. Corwin, P.L. Ferrari, S. Péché. Limit processes for TASEP with shocks and rarefaction fans. *J. Stat. Phys.* **140**:232–267 (2010).
3. I. Corwin, P.L. Ferrari, S. Péché. Universality of slow decorrelation in KPZ growth. *Ann. Inst. H. Poincaré B*, **48**:134–150 (2012).
4. G. Amir, I. Corwin, J. Quastel. Probability distribution of the free energy of the continuum directed random polymer in $1 + 1$ dimensions. *Commun. Pure Appl. Math.*, **64**:466–537 (2011).
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6. I. Corwin, J. Quastel, D. Remenik. Continuum statistics of the Airy₂ process. *Commun. Math. Phys.*, **317**:347–362 (2013).
7. A. Borodin, I. Corwin. Macdonald Processes. *Probab. Theo. Rel. Fields*, **158**:225–400 (2014).
8. I. Corwin, A. Hammond. Brownian Gibbs property for Airy line ensembles. *Inventiones Mathematicae*, **195**:441–508 (2014).
9. A. Borodin, I. Corwin, D. Remenik. Log-Gamma polymer free energy fluctuations via a Fredholm determinant identity. *Commun. Math. Phys.*, **324**:215–232 (2013).
10. I. Corwin, N. O’Connell, T. Seppäläinen, N. Zygouras. Tropical combinatorics and Whittaker functions. *Duke Math J.*, **163**:513–563 (2014).
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15. A. Borodin, I. Corwin. Discrete time q -TASEPs. *Int. Math. Res. Not.*, rnt206 (2013).
16. A. Borodin, I. Corwin, V. Gorin, Sh. Shakirov. Observables of Macdonald processes. *Trans. Amer. Math. Soc.*, **368**:1517–1558 (2016).
17. A. Borodin, I. Corwin, L. Petrov, T. Sasamoto. Spectral theory for the q -Boson particle system. *Compositio Mathematica*, **151**:1–67 (2015).
18. I. Corwin. The q -Hahn Boson process and q -Hahn TASEP. *Int. Math. Res. Not.*, rmu094 (2014).
19. I. Corwin, X. Sun. Ergodicity of the Airy line ensemble. *Elect. Commun. Probab.*, **19**:1–11 (2014).
20. I. Corwin, L. Petrov. The q -pushASEP: A new integrable particle system in $1 + 1$ dimension. *J. Stat. Phys.*, **160**:1005–1026 (2015).

21. I. Corwin, J. Quastel, D. Remenik. The renormalization fixed point of the Kardar-Parisi-Zhang universality class. *J. Stat. Phys.*, **160**:815–834 (2015).
22. I. Corwin, T. Seppäläinen, H. Shen. The strict-weak lattice polymer. *J. Stat. Phys.*, **160**:027–1053 (2015).
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25. A. Borodin, I. Corwin, D. Remenik. A classical limit of Noumi’s q -integral operator *SIGMA*, 098 (2015).
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30. G. Barraquand, I. Corwin. The q -Hahn asymmetric exclusion process. *Ann. Appl. Probab.*, **26**:2304–2356 (2016).
31. A. Bufetov, A. Borodin, I. Corwin. Directed random polymers via nested contour integrals. *Ann. Phys.*, **368**:191–247 (2016).
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40. J. Baik, G. Barraquand, I. Corwin, T. Suidan. Pfaffian Schur processes and last passage percolation in a half-quadrant.
41. J. Baik, G. Barraquand, I. Corwin, T. Suidan. Facilitated exclusion process.
42. A. Borodin, I. Corwin, P. L. Ferrari. Anisotropic $(2 + 1)$ D growth and Gaussian limits of q -Whittaker processes.
43. I. Corwin, E. Dimitrov. Transversal fluctuations of the ASEP, stochastic six vertex model, and Hall-Littlewood Gibbsian line ensembles.

44. G. Barraquand, A. Borodin, I. Corwin, M. Wheeler. Stochastic six-vertex model in a half-quadrant and half-line open ASEP.
45. A. Borodin, I. Corwin. Dynamic ASEP, duality and continuous q^{-1} -Hermite polynomials.

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46. I. Corwin. Exactly solving the KPZ equation. In *Random Growth Models Proceedings of Symposia in Applied Mathematics, AMS*, March 2016.
47. I. Corwin. Kardar-Parisi-Zhang universality. *Notices of the American Mathematical Society*, March 2016.
48. I. Corwin. Macdonald processes, quantum integrable systems and the Kardar-Parisi-Zhang universality class. *Proceedings of the International Congress of Mathematicians 2014*.
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50. I. Corwin. Macdonald processes. *Proceedings of the XVIIth Congress on Mathematical Physics*, World Scientific.
51. I. Corwin. The Kardar-Parisi-Zhang equation and universality class. *Random Matrices: Theory and Applications*, **1** (2012).
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53. I. Corwin, J. Quastel. Book: St. Flour Lecture notes, summer 2012. In preparation.
54. I. Corwin, M. Hilario, and A. Kassel. Probability and statistical physics in two and more dimensions (*Clay Mathematics Institute 2010 Summer School Report*; David Ellwood, Charles Newman, Vladas Sidoravicius and Wendelin Werner Organizers).

Ph.D. Thesis

55. I. Corwin. The Kardar-Parisi-Zhang equation and universality class. Courant Institute (NYU) Ph.D. thesis (2011). Advisor: Gérard Ben Arous; Committee: Sourav Chatterjee, Percy Deift, Charles Newman, S.R.S. Varadhan.

Undergraduate Thesis

56. I. Corwin. Automorphic distributions from cocompact Fuchsian groups. Harvard honors thesis (2006). Advisor: Professor W. Schmid.

Earlier publications

57. I. Corwin, F. Morgan. The Gauss-Bonnet formula on surfaces with densities. *Involve*. **4** (2011).
58. 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).
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