

DMITRY CHELKAK – LIST OF PUBLICATIONS

• **Preprints:**

- (1) Dmitry Chelkak, Planar Ising model at criticality: state-of-the-art and perspectives. [arXiv:1712.04192](#), prepared for the *Proceedings of the ICM2018*.
- (2) Dmitry Chelkak, 2D Ising model: correlation functions at criticality via Riemann-type boundary value problems. [arXiv:1605.09035](#), to appear in *Proceedings of the 7ECM*.
- (3) Dmitry Chelkak, Alexander Glazman, Stanislav Smirnov, Discrete stress-energy tensor in the loop $O(n)$ model. [arXiv:1604.06339](#).

• **Published:**

- (4) Dmitry Chelkak, David Cimasoni, Adrien Kassel, Revisiting the combinatorics of the 2D Ising model, *Ann. Inst. Henri Poincaré D* 4 (2017), no. 3, 309–385.
- (5) Dmitry Chelkak, Robust discrete complex analysis: a toolbox, *Ann. Probab.* 44 (2016), no. 1, 628–683.
- (6) Dmitry Chelkak, Hugo Duminil-Copin, Clément Hongler, Crossing probabilities in topological rectangles for the critical planar FK Ising model, *Electron. J. Probab.*, 21 (2016), paper no. 5, 28pp.
- (7) Dmitry Chelkak, Clément Hongler, Konstantin Izyurov, Conformal invariance of spin correlations in the planar Ising model, *Ann. Math.* 181 (2015), no. 3, 1087–1138.
- (8) Dmitry Chelkak, Hugo Duminil-Copin, Clément Hongler, Antti Kemppainen, Stanislav Smirnov, Convergence of Ising interfaces to Schramm’s SLE curves, *C. R. Acad. Sci. Paris, Ser. I* 352 (2014), 157–161.
- (9) Dmitry Chelkak, Konstantin Izyurov, Holomorphic spinor observables in the critical Ising model, *Comm. Math. Phys.* 322 (2013), no. 2, 303–332.
- (10) Dmitry Chelkak, Stanislav Smirnov, Universality in the 2D Ising model and conformal invariance of fermionic observables, *Invent. Math.*, 189 (2012), no. 3, 515–580.
- (11) Dmitry Chelkak, Stanislav Smirnov, Discrete complex analysis on isoradial graphs, *Advances in Mathematics*, 228 (2011), no. 3, 1590–1630.
- (12) An application of the fixed point theorem to the inverse Sturm-Liouville problem. Chelkak, D.: *Записки научных семинаров ПОМИ*, 370 (2009), 203–218.
English translation: *J. Math. Sci.* 166 (2010), no. 1, 118–126.
- (13) Обратная задача Штурма-Лиувилля со смешанными краевыми условиями, Е. Л. Коротяев, Д. С. Челкак: *Алгебра и анализ*, 21 (2009), no. 5, 114–137.
English translation: *St. Petersburg Math. J.* 21 (2010), no. 5, 761–778.
- (14) Weyl-Titchmarsh functions of vector-valued Sturm-Liouville operators on the unit interval. Chelkak, D.; Korotyaev, E.: *Journal of Functional Analysis* 257 (2009), 1546–1588.
- (15) The inverse problem for perturbed harmonic oscillator on the half-line with a Dirichlet boundary condition. Chelkak, D.; Korotyaev, E.: *Ann. Henri Poincaré* 8 (2007), no. 6, 1115–1150.
- (16) Parametrization of the isospectral set for the vector-valued Sturm-Liouville problem. Chelkak, D.; Korotyaev, E.: *Journal of Functional Analysis* 241 (2006), 359–373.
- (17) Spectral estimates for Schrodinger operator with periodic matrix potential on the real line. Chelkak, D.; Korotyaev, E.: *Int. Math. Res. Not.*, 2006, Article ID 60314, 1–41.

DMITRY CHELKAК – LIST OF PUBLICATIONS (CONTINUED)

- (18) Inverse problem for harmonic oscillator perturbed by potential, characterization. Chelkak, D.; Kargaev, P.; Korotyaev, E.: *Comm. Math. Phys.* 249 (2004), no. 1, 133–196.
- (19) Inverse problem for harmonic oscillator perturbed by potential. Chelkak, D.; Kargaev, P.; Korotyaev, E.: Inverse problems and spectral theory, 93–102, *Cont. Math.* 348, AMS, Providence, RI, 2004.
- (20) Асимптотика спектральных данных гармонического осциллятора, возмущенного потенциалом с конечной энергией. Д. С. Челкак: *Зап. Науч. Сем. ПОМИ* 303 (2003) 223–271. English translation: *J. Math. Sci.* 129 (2005), no. 4, 4053–4082.
- (21) Аппроксимация в пространстве спектральных данных возмущенного гармонического осциллятора. Д. С. Челкак: *Проблемы Мат. Анализа* 26 (2003) 287–300. English translation: *J. Math. Sci.* 117 (2003), no. 3, 4260–4269.
- (22) An inverse problem for an harmonic oscillator perturbed by potential: uniqueness. Chelkak, D.; Kargaev, P.; Korotyaev, E.: *Lett. Math. Phys.* 64 (2003), no. 1, 7–21.