

5 minute talk at MSRI

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General info

- 2021-2024 **NSF Postdoctoral Fellow** based at the University of Michigan, Ann Arbor. Sponsor: Jinho Baik.
- Fall 2021 **MSRI Postdoctoral Fellow**. Office 305. Mentor: Ken McLaughlin
- 2019 **PhD** from Indiana University-Purdue University Indianapolis. Supervisor: Alexander Its.
- 2017-present **Researcher** at the Saint-Petersburg State University.

Research interests

- Riemann-Hilbert problems
- Painlevé equations and its generalizations

Previous results

- 2018 Connection constant problem for **Painlevé tau functions** (with A. Its and O. Lisovyy)
- 2019 Constant in the lower tail asymptotic near the hard edge of **thinned LUE** (with T. Bothner and A. Its)
- 2019 Moments of logarithmic derivative of **characteristic polynomials of CUE** (with E. Bailey, S. Bettin, B. Conrey, G. Blower, M. Rubinstein, N. Snaith)

Current projects

- Tracy Widom β distribution for **even β** : matrix Painlevé equations, Riemann-Hilbert problem construction, constant in the lower tail (with A. Its)
- **Multitime distribution** for KPZ fixed point and for TASEP: matrix KP equation, lower tail and upper tail, discrete KP equation (with J. Baik and G. Silva)
- **Rational solutions** of Painlevé III equation: large degree asymptotics in the neighborhood of zero (with A. Barhoumi, P. Miller and O. Lisovyy)
- Connection constant of Painlevé tau function and **$c \rightarrow \infty$ conformal block** on the torus (with H. Desiraju and P. Ghosal)
- Explicit formula for the **full asymptotic expansion** of upper tail of Tracy-Widom distribution (with H. Desiraju and A. Its)