

Extract from OP-SF NET

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Subject: Gábor Szegő Prize 2017

Gábor Szegő Prize 2017

Official announcement

The SIAM Activity Group on Orthogonal Polynomials and Special Functions awards the Gábor Szegő Prize every two years to an early career researcher for outstanding research contributions, as determined by the prize committee, in the area of orthogonal polynomials and special functions. The contributions must be contained in a paper or papers published in English in peer-reviewed journals. The prize can only be awarded to a researcher who has at most 10 years (full time equivalent) of involvement in mathematics since PhD at the award date.

The selection committee of the Gábor Szegő Prize 2017 has decided unanimously to award the Gábor Szegő Prize 2017 to Thomas Trogdon for his paper *Rational approximation, oscillatory Cauchy integrals and Fourier transforms*, *Constructive Approximation*, 43 (2016), no. 1, pp. 71-101. He deserves the prize for “his versatility in combining orthogonal polynomials and special functions in new and creative ways to deduce results in a variety of fields, such as rational approximation, random matrices, and Riemann-Hilbert problems”.

Thomas Trogdon obtained his PhD in 2013 from the University of Washington, Seattle, where his supervisor was Bernard Deconinck. He was an NSF fellow at the Courant Institute of New York University in 2013-2016 where we worked with Percy Deift. In 2016 he became Assistant Professor at the University of California, Irvine, California.

The selection committee was impressed with the quality of the book *Riemann-Hilbert problems, their numerical solution, and the computation of nonlinear special functions* (SIAM, 2015), written with Sheehan Olver, which is an expanded version of his PhD thesis from 2013 for which he received the 2014 Richard C. DiPrima Prize from SIAM. The committee was also pleased to see new results in orthogonal polynomials, such as the fast computation of Gauss quadrature nodes and new asymptotic results for orthogonal polynomials, various results in random matrix theory, such as sampling of unitary ensembles and the computation of eigenvalues of random matrices, and his groundbreaking work (with Sheehan Olver) on numerical solutions of Riemann-Hilbert problems.

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Selection committee 2017:

Kerstin Jordaan, University of South Africa, South Africa

Andrei Martínez Finkelshtein, Universidad de Almería, Spain

Adri Olde Daalhuis, University of Edinburgh, UK

Yuan Xu, University of Oregon, USA