Curriculum Vitae Tom Claeys

Contact information

Work address	Chemin du Cyclotron 2, bâtiment de Hemptinne b017
	B-1348 Louvain-La-Neuve, Belgium
Citizenship	Belgian
E-mail	tom.claeys@uclouvain.be
Personal web page	http://perso.uclouvain.be/tom.claeys

Education

- PhD in sciences, mathematics, Katholieke Universiteit Leuven (2003–2006), advisor: Prof. A. Kuijlaars, title PhD thesis "Universality in critical random matrix ensembles and pole-free solutions of Painlevé equations"

- Master in mathematics, Katholieke Universiteit Leuven (2001–2003)

- Bachelor in mathematics, Katholieke Universiteit Leuven (1999–2001)

Employment history

- Chargé de Cours at Université Catholique de Louvain, Belgium (09/2010–present)

- Maître de Conférences at Université de Lille 1, France (09/2009–08/2010)

- Post-doctoral researcher FWO (Foundation for scientific research Flanders)

    - Brunel University West-London, 10/2007–09/2008
    - Katholieke Universiteit Leuven, 10/2008–08/2009

- PhD student at Katholieke Universiteit Leuven, Belgium (09/2003-08/2007)

Research topics

- Random matrices, determinantal point processes, Toeplitz and Hankel determinants, integrable systems, asymptotic analysis, Riemann-Hilbert problems, Painlevé equations, orthogonal polynomials

Grants and awards

- Gabor Szegő Prize on Orthogonal Polynomials, Special Functions, and Applications, prize of the SIAM Activity Group OPSFA, August 2011

- Principal Investigator of ERC Starting Grant CRaMIS (Critical phenomena in random matrix theory and integrable systems), 2012–2017

- Member of the InterUniversity Attraction Pole DyGeSt (2012-2017), Belgian Science Policy Office

- FRS-FNRS Crédit aux Chercheurs 2012–2015

- Start-up grant from UCLouvain, 2010

- Team member of ERC Advanced Grant From-PDE, Principal Investigator Boris Dubrovin, 2008–2013

- Member of the InterUniversity Attraction Pole NOSY (2007–2012), Belgian Science Policy Office

Selected publications

- T. Claeys and I. Krasovsky, Toeplitz determinants with merging singularities, *Duke Mathematical Journal* 164 (2015), no. 15, 2897–2987

- T. Claeys, T. Grava, and K. T-R McLaughlin, Asymptotics for the partition function in two-cut random matrix models, *Communications in Mathematical Physics* 339, no. 2 (2015), 513–587

- T. Claeys, A. Its, and I. Krasovsky, Emergence of a singularity for Toeplitz determinants and Painlevé V, *Duke Mathematical Journal* 160 (2011), no. 2, 207–262

- T. Claeys and T. Grava, Painlevé II asymptotics near the leading edge of the oscillatory zone for the Korteweg-de Vries equation in the small dispersion limit, *Communication on Pure and Applied Mathematics* 63 (2010), 203–232

- T. Claeys, A. Kuijlaars, and M. Vanlessen, Multi-critical unitary random matrix ensembles and the general Painlevé II equation, *Annals of Mathematics* 167 (2008), 601–642

For a complete list of publications and preprints, see
http://perso.uclouvain.be/tom.claeys/papers.html

Administrative duties

- President of the Jury of the Master in Mathematics, UCLouvain, 2016–present

- Member of the Board of the Institut de Recherche en Mathématique et Physique (as responsible for the GPP Research Group), UCLouvain, 2015–present

- Member of the Board of the Ecole de Mathématique, UCLouvain, 2015–present

- Secretary of the Jury of the Master in Mathematics, UCLouvain, 2012–2016

PhD students

- Antoine Doeraene, defence expected in 2018

- Benjamin Fahs, defence expected in 2017

- Christophe Charlier, Toeplitz and Hankel determinants in random matrix theory, defended July 2016

Post-docs

- Martin Venker, 2016–2017

- Thorsten Neuschel, 2015–2018

- Manuela Girotti, 2014–2016

- Max Atkin, 2013–2015

- Stefano Romano, 2012–2013

Master thesis supervisions

- Thierry Simon, 2015–2016, Prix Ballieu for best presented thesis in mathematics

- Antoine Doeraene, 2013–2014

- Alexandre Lemestré, 2012–2013, Prix Ballieu for best presented thesis in mathematics

- Christophe Charlier, 2011–2012

- Baudouin Peltier, 2010–2011, Prix Ballieu for best presented thesis in mathematics

Selected invited talks

- Asymptotics in integrable systems, random matrices and random processes and universality, in honour of Percy Deift's 70th birthday, CRM Montréal (Canada), June 7-11, 2015

- Advanced School and Workshop on Random Matrices and Growth Models, ICTP Trieste (Italy), September 2-13, 2013

- Orthogonal Polynomials, Special Functions and Applications (OPSFA '11), Madrid (Spain), August 29-September 2, 2011 (plenary speaker)

- Random matrix theory and its applications, MSRI Berkeley (US), September 13-17, 2010

- Integrable systems in pure and applied mathematics, conference in honour of Boris Dubrovin's 60th birthday, Alghero, Sardinia (Italy), June 8-12, 2010