

2022 FIELDS-CRM-PIMS Prize Announced

Bálint Virág



Pacific Institute *for the*
Mathematical Sciences

The 2022 CRM-Fields-PIMS Prize is awarded to Bálint Virág, of the University of Toronto for his exceptional contributions to mathematical research, more specifically in the area of probability.

Virág earned his Ph.D. at the University of California, Berkeley in 2000, after which he was a Moore Instructor at the Massachusetts Institute of Technology, before coming to the University of Toronto in 2003 as a Canada Research Chair. Among other awards, he has been received the Rollo Davidson Prize in Probability, the Canadian Mathematical Society's Coxeter-James Prize in 2010 and the John L. Synge Award from the Royal Society of Canada in 2014. Virág was a speaker at the International Congress of Mathematicians in 2014.

Virág's research has spanned a wide range of cutting-edge areas of probability, including random matrix theory, Kardar-Parisi-Zhang (KPZ) universality, random sorting networks and more. Referees cited the introduction of the "Brownian Carousel", by Virág and his former postdoc, Valkó, to describe the distribution of the point process arising from the collection of eigenvalues of large random matrices, citing its beauty and its fruitfulness in terms of leading to new results and links between probabilistic objects. Referees also point to his recent papers with his former graduate student, Duncan Dauvergne, and others on the "Directed Landscape", which is a probabilistic model arising as the limit of last passage percolation, expected to appear as the limit of all KPZ models.

Virág has an outstanding record of training students and postdoctoral fellows. Many of them have been gone on to become leaders in probability in their own right.

The CRM-Fields-PIMS prize is the premier Canadian award for research achievements in the mathematical sciences. It is awarded jointly by the three largest Canadian mathematics institutes: the Centre de Recherches Mathématiques (CRM) in Montreal, the Fields Institute in Toronto, and the Pacific Institute for the Mathematical Sciences (PIMS) in Vancouver. The winner's research should have been conducted primarily in Canada or in affiliation with a Canadian university. The main selection criterion is outstanding contribution to the advancement of research. As part of this recognition, Professor Virág will receive a monetary award and an invitation to present a lecture at each institute.

