

Citation for Jacob Tsimerman. The Ostrowski Prize for 2023 is awarded to Jacob Tsimerman in recognition of his work at the interface of transcendence theory, analytic number theory and arithmetic geometry, including recent breakthroughs on the André-Oort and Griffiths conjectures.

Shimura varieties are algebraic varieties of great interest. Introduced by Shimura and Deligne in order to generalize modular curves, they nowadays play a central role in the theory of automorphic forms, the study of Galois representations, and in Diophantine geometry. The André-Oort conjecture describes the distribution of special points, also called points of complex multiplication, on a Shimura variety. The conjecture is an analogue of the Manin-Mumford conjecture for Shimura varieties. It lies at the confluence of Diophantine problems and the arithmetic of modular forms. The proof of the general case of the André-Oort conjecture required overcoming a number of highly non-trivial obstacles. It was achieved recently by Tsimerman and collaborators and is the pinnacle result of this type.

Jacob Tsimerman, born 1988, is a Canadian mathematician. He won the International Mathematics Olympiad Gold Medal in the years 2003 and 2004. He studied mathematics at the University of Toronto and received his doctorate from Princeton University in 2011, under the supervision of Peter Sarnak. He had a post-doctoral position at Harvard University as a Junior Fellow of the Harvard Society of Fellows. In July 2014 he was awarded a Sloan Fellowship and he started his term as assistant professor at the University of Toronto, where he is now a full professor.

The Ostrowski Foundation was created by Alexander M. Ostrowski who was for many years a professor at the University of Basel. He left his entire estate to the foundation and stipulated that the income should provide a prize for outstanding achievements in mathematics. The prize is awarded every other year and is currently 100,000 Swiss francs.