

André Lichnerowicz prize in Poisson Geometry - 2016

The André Lichnerowicz prize in Poisson geometry was established in 2008. It is awarded for notable contributions to Poisson geometry, every two years at the "International Conference on Poisson Geometry in Mathematics and Physics", to researchers who completed their doctorates at most eight years before the year of the Conference.

The prize is named in memory of André Lichnerowicz (1915-1998) whose work was fundamental in establishing Poisson geometry as a branch of mathematics. It is awarded by a jury composed of the members of the scientific and advisory committees of the conference.

The recipients of the 2016 André Lichnerowicz prize in Poisson geometry are:

Pavel Mnev & Travis Schedler

Pavel Mnev received his PhD in 2008 at the Steklov Mathematical Institute in St. Petersburg, under the supervision of Ludwig Faddeev. He is currently a junior faculty member at the Max Planck Institute for Mathematics in Bonn.

Mnev has made important contributions in developing homotopy theory techniques in Topological Quantum Field Theory (TQFT). One of his achievements is the construction of the simplicial BF theory. This was the first concrete example of Batalin-Vilkovisky (BV) renormalization. Furthermore, it provided formulas for the homotopy transfer of L_∞ algebras, and led to Merkulov's wheeled properadic approach to the quantum master equation. Later on, in collaboration with Cattaneo and Reshetikhin, Mnev put forward an ambitious program of constructing quantum field theories on manifolds with corners in terms of perturbative BV path integrals. It will make it possible to build TQFTs on complicated spaces by gluing from simple pieces. Parts of this program are already in place and they carry great promise.

Travis Schedler received his PhD degree in 2008 from the University of Chicago under the supervision of Victor Ginzburg and Pavel Etingof.

His research concentrates on noncommutative and Poisson algebras from (symplectic) geometric, representation-theoretic, and cohomological points of view. He developed the Poisson-de Rham homology, as well as other new homology theories, for Poisson varieties and their quantizations. In a joint work with V. Ginzburg, he defined new constructions of cyclic homology and its Gauss-Manin connection. Another important achievement of Schedler was the computation of Hochschild (co)homology of preprojective and Frobenius algebras. In a joint work with Bellamy, he classified symplectic resolutions of quotient singularities, while similar results for quiver varieties are on their way. Currently, Schedler also works on connections with topological field theories, Fukaya categories, and the b -function.