

Simon Brendle:

For his outstanding results on geometric partial differential equations and systems of elliptic, parabolic and hyperbolic types, which have led to breakthroughs in differential geometry including the differentiable sphere theorem, the general convergence of Yamabe flow, the compactness property for solutions of the Yamabe equation, and the Min-Oo conjecture.

Emmanuel Breuillard:

For his important and deep research in asymptotic group theory, in particular on the Tits alternative for linear groups and on the study of approximate subgroups, using a wealth of methods from very different areas of mathematics, which has already made a long lasting impact on combinatorics, group theory, number theory and beyond.

Alessio Figalli:

For his outstanding contributions to the regularity theory of optimal transport maps, to quantitative geometric and functional inequalities and to partial solutions of the Mather and Mañé conjectures in the theory of dynamical systems.

Adrian Ioana:

For his impressive and deep work in the field of operator algebras and their connections to ergodic theory and group theory, and in particular for solving several important open problems in deformation and rigidity theory, among them a long standing conjecture of Connes concerning von Neumann algebras with no outer automorphisms.

Mathieu Lewin:

For his ground breaking work in rigorous aspects of quantum chemistry, mean field approximations to relativistic quantum field theory and statistical mechanics.

Ciprian Manolescu:

For his deep and highly influential work on Floer theory, successfully combining techniques from gauge theory, symplectic geometry, algebraic topology, dynamical systems and algebraic geometry to study low-dimensional manifolds, and in particular for his key role in the development of combinatorial Floer theory.

Grégory Miermont:

For his outstanding work on scaling limits of random structures such as trees and random planar maps, and his highly innovative insight in the treatment of random metrics.

Sophie Morel:

For her deep and original work in arithmetic geometry and automorphic forms, in particular the study of Shimura varieties, bringing new and unexpected ideas to this field.

Tom Sanders:

For his fundamental results in additive combinatorics and harmonic analysis, which combine in a masterful way deep known techniques with the invention of new methods to achieve spectacular applications.

Corinna Ulcigrai:

For advancing our understanding of dynamical systems and the mathematical characterisations of chaos, and especially for solving a long-standing fundamental question on the mixing property for locally Hamiltonian surface flows.