

The Committee, composed by Michele Benzi, Piero Colli Franzone, Albert Fathi, Vincenzo Ferone (President) and Gigliola Staffilani awarded Gabriel Peyré as recipient of the “Enrico Magenes” Prize 2019.

Gabriel Peyré’s mathematical activity over the years has been of exceptional quality and intensity and it encompasses some of the most promising current directions in applied and computational mathematics: data analysis, imaging, machine learning, geometric structures, inverse problems. His work has rigorous foundations in the classical fields of calculus of variation, PDEs, harmonic analysis, probability theory and numerical analysis. He has made spectacular progresses in the field of Numerical Optimal Transport: he has achieved a major breakthrough by developing new techniques based on entropic regularization and by solving challenging problems that still recently had been considered intractable.

His work is already having a major impact on the solution of problems arising in data science and machine learning, combining regularization techniques and optimal transport with a geometric viewpoint.

Thanks to the scientific direction of two research projects funded by ERC grants, Gabriel Peyré has also been forming a school of brilliant young researchers in these important fields of applied mathematics.