

The Fifth Vasil Popov Prize

awarded to

Mauro Maggioni of Duke University

*Twelfth International Conference in Approximation Theory
San Antonio, Texas
March 6, 2007*

The Popov Prize honors the memory of Vasil A. Popov (1942-1990), the Bulgarian analyst best known for his work in nonlinear approximation. The Prize is awarded every third year to a young mathematician (less than six years removed from the Ph.D.) who has made outstanding research contributions in approximation theory and/or related areas. Previous Popov Prize winners are Albert Cohen (Paris), Arno Kuijlaars (The Netherlands), Emmanuel Candes (California Institute of Technology), and Serguei Denissov (California Institute of Technology). The Sixth Popov Prize will be awarded in 2010.

Mauro Maggioni was recognized for his contributions to Harmonic analysis on graphs, in particular for his work on diffusion geometry and the construction of Multiscale analysis and wavelets based on diffusion processes on graphs. Maggioni has introduced novel ideas and powerful new techniques which allow him to seamlessly integrate empirical applied mathematics with the deepest theoretical tools in pure mathematics. His work has already had a seminal impact in the fields of information organization, machine learning, spectral graph theory, image analysis, and medical diagnostics.

The Prize, which consists of a marble pyramid trophy and a cash award, was presented to Maggioni by Pencho Petrushev of the University of South Carolina on behalf of the Selection Committee. The other members of the Committee were Charles Chui, Wolfgang Dahmen, Paul Nevai, Allan Pinkus, and Edward Saff. After the Prize presentation, Mauro Maggioni presented a plenary lecture entitled "Diffusion processes on graphs and multiscale analysis of high-dimensional data."



Mauro Maggioni is an Assistant Professor at the Department of Mathematics of Duke University. He received his Ph.D. in Mathematics in May 2002 from Washington University, St. Louis, under the supervision of Guido Weiss.