

Mathematics People

1998 AMS Centennial Fellowships Awarded

The AMS has awarded four Centennial Fellowships for 1998-99. The recipients are MARK ANDREA A. DE CATALDO, STAVROS GAROUFALIDIS, SÁNDOR J. KOVÁCS, and YANGUANG LI.

Mark Andrea A. de Cataldo

Mark Andrea A. de Cataldo received his Ph.D. from the University of Notre Dame in 1995 under the direction of Andrew J. Sommese. He has been a visiting assistant professor at Washington University in St. Louis and a research fellow at the Max-Planck-Institut für Mathematik in Bonn.



Photograph courtesy of Fotoatelier, Bonn, Germany.

de Cataldo's area of research is algebraic geometry. His earlier activity has been in classical projective geometry and low codimension embeddings of projective varieties in homogeneous spaces. His recent work is on notions of singular hermitian metrics and of semipositivity for holomorphic vector bundles with applications to effectivity problems in algebraic geometry by the use of algebraic and analytic techniques.

He plans to use the Centennial Fellowship to visit Harvard University.

Stavros Garoufalidis

Stavros Garoufalidis received his Ph.D. in 1992 from the University of Chicago under the guidance of Melvin Rothenberg.



Photograph courtesy of Stavros Garoufalidis.

After a year at MSRI he spent two years at MIT as a Moore Instructor. Since then he has held one-year visiting positions at Brown University (1995-96) and Harvard University (1996-97) and is currently at Brandeis University (1997-98).

Garoufalidis's research has been in the interaction of 3-dimensional topology and mathematical physics. Motivated by the ideas of Chern-Simons exact and perturbative theory, he has given applications of topological quantum field theory invariants to 3-dimensional topology and knot theory. In addition, he has studied relations between new (Jones polynomial) and old (Alexander polynomial) invariants of knots. In the past three years he has been involved in the development of a theory of finite type 3-manifold invariants, with applications in the structure of the mapping class group and in quantum cohomology.

His research plans include a study of Chern-Simons theory, deformation quantization, and quantum cohomology, with a view towards applications to 3-dimensional topology. He will use his Centennial Fellowship to visit Harvard University and the Georgia Institute of Technology.