

FOURTH POPOV PRIZE AWARDED TO SERGUEI DENISSOV

California Institute of Technology

May 19, 2004

The Fourth Vasil Popov Prize was awarded on May 19, 2004 to Serguei Denissov, California Institute of Technology, during the Eleventh International Conference in Approximation Theory held this year in Gatlinburg, Tennessee. 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.

Serguei Denissov was recognized for his contributions to Spectral theory and Orthogonal polynomials. He proved the continuous analog of Rakhmanov's Theorem for Jacobi matrices, which settled a conjecture of Paul Nevai that had been open for more than 15 years. Denissov has introduced new ideas and powerful new techniques in Spectral theory that enabled him to solve deep problems. In particular, he was the first to show that there exist Schrödinger operators with square integrable potentials for which absolutely continuous and singular spectrum co-exist on the same spectral interval.

The Prize which consists of a marble pyramid trophy and a cash award, was presented to Denissov by Pencho Petrushev of the University of South Carolina on behalf of the selection committee. The other members of the committee were Ronald

DeVore, Charles Chui, Paul Nevai, Allan Pinkus, and Edward Saff. After the Prize presentation, Denissov presented a plenary lecture entitled "On Different Applications of Approximation Theory in Mathematical Physics."

Denissov is the Taussky–Todd Instructor at the California Institute of Technology. He received his Ph.D. in Mathematics in July 1999 from Moscow State University under the supervision of Professor V. Il'in. Previous Popov Prize winners are Albert Cohen (Paris), Arno Kuijlaars (The Netherlands), and Emmanuel Candes (California Institute of Technology). The Fifth Popov Prize will be awarded in 2007.

