

---

# Mathematics People

## Kuijlaars Receives Popov Prize

A. B. J. KUIJLAARS has received the Popov Prize for outstanding research in approximation theory. The prize was presented on January 4, 1998, during the Approximation Theory IX Conference in Nashville, Tennessee. Created in memory of Vasil Popov and his many contributions to approximation theory, the prize is restricted to mathematicians who have held the doctorate for less than six years.

Kuijlaars was cited for his innovative work on Chebyshev quadrature problems for the sphere in arbitrary dimensions, his solutions of several difficult problems posed by V. Totik concerning approximation by polynomials with varying weights, and his contributions to asymptotic theory for minimum energy point arrangements on the sphere.

Kuijlaars did his undergraduate studies in mathematics at the Technical University in Eindhoven, the Netherlands, and his graduate work at the University of Utrecht under the direction of Emile Bertin. After completing his Ph.D. in 1991, Kuijlaars took a postdoctoral position at the University of Amsterdam, where he worked closely with Jaap Korevaar. Kuijlaars spent two semesters in the U.S., where he collaborated with Ed Saff at the University of South Florida and Walter Gautschi at Purdue University. Kuijlaars is now at the Katholieke Universiteit in Leuven, Belgium.

The Popov Prize was first awarded in 1995 to Albert Cohen. The selection committee for the 1998 prize consisted of Charles Chui, Ron DeVore, Paul Nevai, Pencho Petrushev, Allan Pinkus, and Ed Saff. The third Popov Prize will be awarded in 2001.

—from announcement of the Popov Prize Committee

## NSF Program for Women

The National Science Foundation has made about 100 awards in its Professional Opportunities for Women in Research and Education (POWRE) program. POWRE supports activities designed to promote the development of scholarly and institutional leaders in research and education. The former Visiting Professorships for Women, Faculty Awards for Women, Research Planning Grants for Women, and Career Advancement Awards for Women programs

have been integrated and incorporated into the POWRE program.

Among the POWRE awardees are a number who work in the mathematical sciences. They are listed below, together with their affiliations and the titles of their projects. MIN CHEN, Pennsylvania State University, Study of model equations for water waves; ZHILAN FENG, Purdue University, Mathematical models for host-parasite systems; RUTH E. GORNET, Texas Tech University, Spectral geometry of nil-manifolds and Kleinian groups; SUSAN LANDAU, University of Massachusetts, Amherst, Certification of security protocols; GAIL LETZTER, Virginia Polytechnic Institute, New constructions for quantized and classical enveloping algebras; DEBORAH NOLAN, University of California, Berkeley, Statistics: Research, education, and application; and SUELY OLIVEIRA, Texas A&M University, New numerical algorithms for particle transport and integral equations.

—from NSF announcement

## Deaths

EUGENE J. GEHRIG, of Chicago, IL, died on October 18, 1997. Born on September 23, 1925, he was a member of the Society for 39 years.

DENNIS M. GIRARD, of the University of Wisconsin-Green Bay, died on December 10, 1997. Born in 1939, he was a member of the Society for 27 years.

THIRZA A. MOSSMAN, of Manhattan, KS, died on October 10, 1997. Born on March 8, 1895, she was a member of the Society for 74 years.

GYORGY TARGONSKI, professor emeritus, University of Marburg, Germany, died on January 10, 1998. Born on March 27, 1928, he was a member of the Society for 34 years.

### About the Cover

The computer-generated image "Twisted Symmetries" is reproduced with the permission of Michael Field and Martin Golubitsky of the University of Houston. The quilt is a pattern of symmetry type **pg4** and was created using methods based on iterated function systems.

## Invited Speakers for ICM-98

The International Congress of Mathematicians (ICM) 1998 will be held in Berlin, Germany, August 18–27, 1998. Presented below are the names and affiliations of individuals invited to present lectures at the Congress. For further information, consult the ICM Web site <http://elib.zib.de/ICM98/>. The ICM Second Announcement appeared in the February 1998 issue of the *Notices*, pages 317–341.

### Plenary Speakers

JEAN-MICHEL BISMUT, U. Paris-Sud, Orsay, France; CHRISTOPHER DENINGER, U. Münster, Germany; PERSI DIACONIS, Cornell U., USA; GIOVANNI GALLAVOTTI, U. La Sapienza, Roma, Italy; WOLFGANG HACKBUSCH, U. Kiel, Germany; HELMUT H. W. HOFER, Courant I., New York U., USA; EHUD HRUSHOVSKI, Hebrew U., Jerusalem, Israel; I. G. MACDONALD, Queen Mary and Westfield College, U. London, UK; STÉPHANE MALLAT, École Polytechnique, Palaiseau, France; DUSA McDUFF, SUNY Stony Brook, USA; TETSUJI MIWA, RIMS, Kyoto U., Japan; JÜRGEN MOSER, ETH, Zürich, Switzerland; GEORGE C. PAPANICOLAOU, Stanford U., USA; GILLES PISIER, U. Paris 6, France, and Texas A&M U., USA; PETER SARNAK, Princeton U., USA; PETER W. SHOR, AT&T Labs, USA; KARL SIGMUND, U. Vienna, Austria; MICHEL TALAGRAND, C.N.R.S., U. Paris 6, France; CUMRUN VAFA, Harvard U., USA, and Tehran, Iran; MARCELO VIANA, IMPA, Rio de Janeiro, Brazil; VLADIMIR VOEVOVSKY, Northwestern U., USA.

### 45-minute Speakers

Note: Each speaker will present only one talk. Some speakers are listed more than once because they fall under more than one section.

**Section 1: Logic.** MATTHEW FOREMAN, U. California-Irvine, USA; GREGORY HJORTH, U. California-Los Angeles, USA; LUDOMIR NEWELSKI, U. Wrocław, Poland; STEVO B. TODORCEVIC, U. Toronto, Canada, U. Paris 7, France, and Matematiki I., Beograd, Yugoslavia; ALEX JAMES WILKIE, U. Oxford, UK.

**Section 2: Algebra.** ERIC MARK FRIEDLANDER, Northwestern U., USA; SERGEI IVANOV, U. Illinois-Urbana, USA; WILLIAM M. KANTOR, U. Oregon, USA; GUNTER MALLE, I.W.R., Heidelberg, Germany; ALEKSANDR PUKHLIKOV, Moscow State U., Russia; IDUN REITEN, Norwegian U. Science and Tech., Trondheim, Norway; JEREMY C. RICKARD, U. Bristol, UK; ANER SHALEV, Hebrew U., Jerusalem, Israel.

**Section 3: Number Theory and Arithmetic Algebraic Geometry.** VLADIMIR BERKOVICH, Weizmann I. of Science, Rehovot, Israel; PIERRE COLMEZ, ENS, DMI, Paris, France; WILLIAM DUKE, Rutgers U.-New Brunswick, USA; FRANÇOIS GRAMAIN, U. Jean Monnet Saint-Etienne, France; LOIC MEREL, U. Paris 7, France; SHINICHI MOCHIZUKI, RIMS, Kyoto U., Japan; HANS PETER SCHLICKWEI, U. Marburg, Germany; TAKESHI TSUJI, RIMS, Kyoto U., Japan; SHOU-WU ZHANG, Columbia U., USA.

**Section 4: Algebraic Geometry.** PAUL S. ASPINWALL, Duke U., USA; VICTOR V. BATYREV, U. Tübingen, Germany; MAURIZIO D. T. CORNALBA, U. Pavia, Italy; JOHAN DE JONG, Princeton U., USA; ROBERT DIJKGRAAF, U. Amsterdam, Netherlands; MARK

GREEN, U. California-Los Angeles, USA; MIKHAIL M. KAPRANOV, Northwestern U., USA.

**Section 5: Differential Geometry and Global Analysis.** DMITRI BURAGO, Pennsylvania State U., USA; TOBIAS H. COLDING, Courant I., New York U., USA; SIMON K. DONALDSON, Stanford U., USA; BORIS DUBROVIN, SISSA, Trieste, Italy; YAKOV ELIASBERG, Stanford U., USA; SYLVESTRE GALLOT, ENS de Lyon, U.M.P.A., France; GERHARD HUISKEN, U. Tübingen, Germany; DOMINIC JOYCE, Lincoln College, Oxford, UK; FRANÇOIS LABOURIE, U. Paris-Sud, Orsay, France; JOACHIM LOHKAMP, U. Augsburg, Germany; ULRICH PINKALL, TU Berlin, Germany; LEONID POLTEROVICH, Tel Aviv U., Israel; YONGBIN RUAN, U. Wisconsin-Madison, USA.

**Section 6: Topology.** ALEXANDER N. DRANISHNIKOV, U. Florida, USA; WILLIAM G. DWYER, U. Notre Dame, USA; RONALD A. FINTUSHEL, Michigan State U., USA; MICHAEL H. FREEDMAN, U. California-San Diego, USA; MARK MAHOWALD, Northwestern U., USA; TOMOTADA OHTSUKI, Tokyo I. of Technology, Japan; ROBERT A. OLIVER, U. Paris-Nord, Villetaneuse, France; RONALD J. STERN, U. California-Irvine, USA; CLIFFORD H. TAUBES, Harvard U., USA.

**Section 7: Lie Groups and Lie Algebras.** JAMES G. ARTHUR, U. Toronto, Canada; JOSEPH BERNSTEIN, Tel Aviv U., Israel; IVAN V. CHEREDNIK, U. North Carolina-Chapel Hill, USA; ALEXANDER ESKIN, U. Chicago, USA; ROBERT E. KOTTWITZ, U. Chicago, USA; LAURENT LAFFORGUE, U. Paris-Sud, Orsay, France; SHAHAR MOZES, Hebrew U., Jerusalem, Israel; VERA SERGANOVA, U. California-Berkeley, USA; KARI VILONEN, Brandeis U., USA; MINORU WAKIMOTO, Kyushu U., Fukuoka, Japan.

**Section 8: Analysis.** KARI ASTALA, U. Jyväskylä, Finland; MICHAEL CHRIST, U. California-Berkeley, USA; NIGEL D. HIGSON, Pennsylvania State U., USA; MICHAEL T. LACEY, Georgia I. of Technology, USA; PERTTI MATTILA, U. Jyväskylä, Finland; VITALI MILMAN, Tel Aviv U., Israel; DETLEF H. MÜLLER, U. Kiel, Germany; STEFAN MÜLLER, MPI f. Math. in den Naturwissenschaften, Leipzig, Germany; SERGEY I. PINCHUK, Chelyabinsk State U. Technology, Russia; KRISTIAN SEIP, Norwegian U. Science and Technology, Trondheim, Norway; HART F. SMITH, U. Washington, USA; NICOLE TOMCZAK-JAEGERMANN, U. Alberta, Edmonton, Canada; STEPHEN WAINGER, U. Wisconsin-Madison, USA; THOMAS WOLFF, Caltech, USA.

**Section 9: Ordinary Differential Equations and Dynamical Systems.** WELINGTON DE MELO, IMPA, Rio de Janeiro, Brazil; HÅKAN ELIASSON, Royal I. of Technology, Stockholm, Sweden; SHUHEI HAYASHI, School of Commerce, Waseda U., Tokyo, Japan; MICHEL HERMAN, U. Paris 7, France; YURI KIFER, Hebrew U., Jerusalem, Israel; SERGEI B. KUKSIN, Steklov Math. I., Moscow, Russia, and Heriot-Watt U., Edinburgh, UK; KRYSZYNA M. KUPERBERG, Auburn U., USA; CURTIS T. McMULLEN, Harvard U., USA; GRZEGORZ SWIATEK, Pennsylvania State U., USA; ZHIHONG XIA, Northwestern U., USA.

**Section 10: Partial Differential Equations.** FABRICE BETHUEL, U. Paris-Sud, Orsay, France; FRÉDÉRIC HÉLEIN, CMLA, ENS-Cachan, France; ROBERT R. JENSEN, Loyola U., USA; HANS LINDBLAD, U. California-San Diego, USA; MATEI MACHEDON, U. Maryland, USA; FRANK E. MERLE, U. Cergy-Pontoise, France; GUSTAVO A. PONCE, U. California-Santa Barbara, USA; MIKHAIL V. SAFONOV, U. Minnesota-Minneapolis, USA; GUNTHER A. UHLMANN, U. Washington, USA; DMITRI YAFAEV, IRMAR, U. Rennes-1, France.

**Section 11: Mathematical Physics.** PAUL S. ASPINWALL, Duke U., USA; EUGENE BOGOMOLNY, I. de Physique Nucleaire, U. Paris Sud, Orsay, France; DETLEV BUCHHOLZ, I. f. Theoret. Physik, U. Göttingen, Germany; JENNIFER CHAYES, Microsoft Research, USA; PIERRE COLLET, Centre de Physique Théorique, Palaiseau, France; ROBERT DIJKGRAAF, U. Amsterdam, Netherlands; ANTONIO GIORGILLI, U. Milano, Italy; GIAN M. GRAF, ETH-Hönggerberg, Zürich, Switzerland; BARRY MCCOY, I. for Theoret. Physics, SUNY, Stony Brook, USA; ROBERTO SCHONMANN, U. California-Los Angeles, USA; FEDOR SMIRNOV, LPHE, U. Pierre et Marie Curie, Paris, France; HORNG-TZER YAU, Courant I., New York U., USA.

**Section 12: Probability and Statistics.** DAVID JOHN ALDOUS, U. California-Berkeley, USA; MARCO AVELLANEDA, Courant I., New York U., USA; MAURY D. BRAMSON, U. Minnesota-Minneapolis, USA; MARK FREIDLIN, U. Maryland, USA; JAYANTA K. GHOSH, Indian Statistical I., Calcutta, India; FRIEDRICH GÖTZE, U. Bielefeld, Germany; PETER G. HALL, Australian National U., Canberra, Australia; IAIN M. JOHNSTONE, Stanford U., USA; JEAN-FRANÇOIS LE GALL, ENS, DMI, Paris, France; DAVID O. SIEGMUND, Stanford U., USA; ALAIN-SOL SZNITMAN, ETH, Zürich, Switzerland; BORIS TSIRELSON, Tel Aviv U., Israel; RUTH J. WILLIAMS, U. California-San Diego, USA.

**Section 13: Combinatorics.** BÉLA BOLLOBÁS, Trinity College, Cambridge, UK, and U. Memphis, USA; ANDRÁS FRANK, Eötvös U., Budapest, Hungary; ALAIN LASCoux, U. Marne-la-Vallée, Noisy-le-Grand, France; JIRI MATOUŠEK, Charles U., Praha, Czech Republic; HARALD NIEDERREITER, Austrian Acad. Sci., Vienna, Austria; NEIL J. A. SLOANE, AT&T Research Labs, USA; JOSEPH A. F. THAS, U. Ghent, Belgium; ANDREI V. ZELEVINSKY, Northeastern U., USA.

**Section 14: Mathematical Aspects of Computer Science.** MIKLOS AJTAI, IBM Almaden Research Center, USA; JOAN FEIGENBAUM, AT&T Research Labs, USA; JOHAN HASTAD, Royal I. of Technology, Stockholm, Sweden; TONIANN PITASSI, U. Arizona, USA; MADHU SUDAN, MIT, USA; EMO WELZL, ETH, Zürich, Switzerland.

**Section 15: Numerical Analysis & Scientific Computing.** GREGORY BEYLKIN, U. Colorado-Boulder, USA; PERCY A. DEIFT, Courant I., New York U., USA; BJORN E. ENGQUIST, KTH-NADA, Stockholm, Sweden, and U. California-Los Angeles, USA; HISASHI OKAMOTO, Kyoto U., Japan; JAN-OLOF STRÖMBERG, U. Tromsø, Norway; LLOYD N. TREFETHEN, U. Oxford, UK.

**Section 16: Applications.** a) MARCO AVELLANEDA, Courant I., New York U., USA; ULF GRENANDER, Brown U., USA; GERARD M. IOOSS, I. Universitaire de France, INLN, Valbonne, France.

b) BONNIE BERGER, MIT, USA; WILLIAM J. COOK, Rice U., USA; ANDREAS W. M. DRESS, U. Bielefeld, Germany; FRANK HOPPENSTEADT, Arizona State U., USA; CHARLES S. PESKIN, Courant I., New York U., USA.

c) LESLIE FREDERICK GREENGARD, Courant I., New York U., USA; THOMAS YIZHAO HOU, Caltech, USA; GRAEME W. MILTON, U. Utah, USA; ROLF RANNACHER, U. Heidelberg, Germany.

**Section 17: Control Theory and Optimization.** WILLIAM J. COOK, Rice U., USA; MICHEL X. GOEMANS, CORE, Louvain-L.-N., Belgium; JORGE NOCEDAL, Northwestern U., USA; WILLIAM R. PULLEYBLANK, IBM T.J. Watson Research Center, USA; ALEXANDER SCHRIJVER, CWI, Amsterdam, Netherlands; JAN C.

WILLEMS, U. Groningen, Netherlands; JOCHEM ZOWE, U. Erlangen, Germany.

**Section 18: Teaching and Popularization of Mathematics.** JAMES STIGLER, U. California-Los Angeles, USA; JAN DE LANGE, Freudenthal I., U. Utrecht, Netherlands; MOGENS NISS, Roskilde U., Denmark.

a) *Speak and answer:* MICHELE ARTIGUE, U. Paris 7, France; HANS-GEORG STEINER, IDM, U. Bielefeld, Germany.

b) *Roundtable:* GEORGE E. ANDREWS, Pennsylvania State U., USA; DONALD J. LEWIS, National Science Foundation, USA; DAVID ALEXANDER SMITH, Duke U., USA.

c) *Roundtable:* MIGUEL DE GUZMAN, U. Complutense de Madrid, Spain; BERNARD R. HODGSON, Université Laval, Québec, Canada; ALINE ROBERT, U. Paris 7, France; VINICIA VILLANI, U. degli Studi di Pisa, Italy.

**Section 19: History of Mathematics.** KARINE CHEMLA, Paris, France; JOSEPH DAUBEN, City U. New York, USA; JEREMY J. GRAY, Open U., Milton Keynes, UK.

—from ICM Announcement