

2007 Award for an Exemplary Program or Achievement in a Mathematics Department

The Award for an Exemplary Program or Achievement in a Mathematics Department was established by the AMS Council in 2004 and was given for the first time in 2006. The purpose is to recognize a department that has distinguished itself by undertaking an unusual or particularly effective program of value to the mathematics community, internally or in relation to the rest of society. Departments of mathematical sciences in North America that offer at least a bachelor's degree in the mathematical sciences are eligible. The award carries a cash prize of US\$1,200 and is given annually.

The award is presented by the AMS Council acting on the recommendation of a selection committee. For the 2007 award the members of the selection committee were: Sheldon Axler, Joel V. Brawley, James H. Curry, Karl Knight (chair), and Donal B. O'Shea.

The previous recipient of the award is Harvey Mudd College (2006).

The recipient of the 2007 Award for an Exemplary Program or Achievement in a Mathematics Department is the MATHEMATICS DEPARTMENT AT THE UNIVERSITY OF CALIFORNIA, LOS ANGELES.

Citation

The American Mathematical Society (AMS) presents its second annual Award for an Exemplary Program or Achievement in a Mathematics Department to the University of California, Los Angeles (UCLA). The Mathematics Department at UCLA was awarded a VIGRE [Vertical Integration of Research and Education, a program of the National Science Foundation] grant in 2000 which was renewed in 2005. The department has created a comprehensive vision for its undergraduate, graduate, and postdoc training programs which involves important interactions with the Institute for Pure and Applied Mathematics (IPAM) at UCLA. Through these unusually large training programs, UCLA has become one of the largest pipelines to mathematical careers in the United States.

The undergraduate mathematics program at UCLA has seen tremendous growth in the past ten years, increasing mathematics degrees by 81% from 1996 to 2005. Part of this increase is due to the department's pioneering broad-based major which has enough options to draw a diverse group

of students. The department has also invested considerable efforts to reach out to underrepresented minorities, so that 15%-22% of its recent graduates are minority students. Undergraduate REU [Research Experiences for Undergraduates] participation has been an important component of its program, and this has been broadened to include the new Applied Mathematics Laboratory where students participate in actual physical experiments involving robotics and fluid flow.

The graduate mathematics program has also seen considerable growth, going from about 112 students in 2000 to over 200 students today. The department has restructured its graduate program into one where the students learn in a research group environment early in their studies. Ph.D. students take special seminar courses after their first year to streamline them into research projects. This seminar series, which has been expanded to include participation in long programs at IPAM, has students reading current literature and presenting their work. The department also has a new graduate internship program which allows Ph.D. students to work for one summer with a faculty member from another discipline or with someone in industry. The department's postdoctoral program is one of the largest in the country, with over thirty postdocs last academic year.

UCLA is home to the Institute for Pure and Applied Mathematics, which was conceived of and founded by faculty from the department and is currently run by Mark Green, with help by Stanley Osher, both long-time department members. The department has been influential in creating and developing programs as well as training REU students through the Research in Industrial Projects for Students (RIPS) Program. Interactions with the IPAM have also led to several important initiatives, such as the NIH [National Institutes of Health] Center for Computational Biology, participation in the California NanoSystems Institute, and a leadership role in the new Institute for Digital Research and Education, all of which directly involve many students and postdocs in the department.

The mathematics community is fortunate to have UCLA present such an outstanding example of an exemplary program in a mathematics department.