

## Center for Applied Mathematics 2009 - 2014, Synopsis Report

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The Center for Applied Mathematics (CAM) was created to support the development and application of mathematics at the University Florida. Its mission and goals are to:

- Support top quality research in multi-disciplinary, applied, and applicable mathematics.
- Facilitate collaborative research projects between mathematicians and researchers from other disciplines and industry. These collaborations should produce significant practical and theoretical results while providing research and training opportunities for graduate students.
- Strengthen the graduate program in all aspects of mathematics including recruitment and training.
- Provide computational infrastructure necessary for mathematics research. Specifically, acquire hardware and software to support mathematical experimentation, algorithm development, and the numerical solution of mathematical problems that arise in wide-spread applications.

The development and application of mathematics is an essential part of any research university. This research is centered in the Mathematics Department with significant activity in a variety of disciplines and departments. CAM is the only entity at the UF solely dedicated to the growth and development of cross-disciplinary mathematics, and CAM has played a significant role in building and maintaining mathematical excellence at the UF by providing vital support for student and faculty research.

Advances in mathematics do not require a great deal of physical infrastructure, but rather depend on sustained interactions between experts with overlapping or complementary interests. Thus CAM has made the strategic decision to focus its resources on providing numerous moderate size awards to support faculty and student travel to conferences (\$5-600 each). This we have found to be a high return, efficient use of the Center's resources. We also support the annual CAM Colloquium (\$1-2,000 each), the annual CAM Summer Graduate Research Fellowship (\$3000 each), visits to the UF by prospective graduate students, conferences at UF (\$1000 each), and computational infrastructure.

The Center for Applied Mathematics is a University of Florida type III center. It is thus solely funded by a portion of the grant overhead generated by Mathematics Department faculty. The income over the last five years was \$42,716.

Here is a summary of our expenditures during the reporting period by categories: \$33,538 for 59 graduate student trips; \$9,404 for 18 faculty trips; \$2,896 for three conferences; \$11,519 for hardware (8 computers and a printer for the graduate student lab and a laptop for seminar presentations); \$6,000 for two Summer Graduate Research Fellowships; \$100 for a prospective graduate student trip; and \$1,800 for two CAM/Ulam Colloquiums. Note that there is no FTE-funded support to CAM, and we entered the reporting period with a positive balance which was spent down.