Division of Applied Mathematics

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Introduction

Applied Mathematics is rooted in the fundamental truths and basic concepts of the mathematical sciences but is concerned with using mathematical principles to solve problems in other areas of science, engineering, industry and society. "Applied" is distinguished from "pure" by a subtle combination of factors, including the motivation, familiarity, and attitude of researchers, and its close relationship to the area of application. Applied mathematics is uniquely interdisciplinary, and while it has significant overlap with pure mathematics, its primary focus is on solving the problem at hand.

The Division of Applied Mathematics emphasizes the importance of research and teaching relevant to applications of newly developing areas of mathematical science. Present activities include research involving wavelets, special functions, large scale computation, tele-communication, information technology, brain science, and modelling.

As applied mathematics and its applications evolve, so does the Division of Applied Mathematics. Yet our unified view of the mathematical sciences, and of their importance for modern science and society, remains constant. Because of the broad range of techniques which may be applicable to the study of specific phenomena, the course work and the research in the Division are designed to bring the student into contact with activity in several disciplines related to applied mathematics, such as engineering, computer science, and biology.

The development of applied mathematics is fundamental to the evolution of science and to our nation's technological competitiveness. Indeed, computation and mathematical modelling are fast becoming co-equal partners in modern sciences along with laboratory experiment and analytical theory. The Division of Applied Mathematics expects to provide continuing scientific leadership and direction in this vital endeavor.