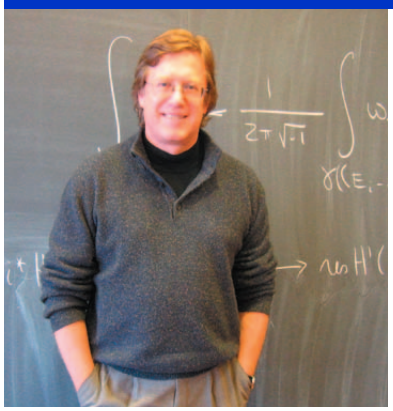
Letter from the President



Dear Friends of Mathematics:

It has been a great pleasure working at the Clay Mathematics Institute the past eight months. Rarely does a mathematician have the opportunity to serve the discipline in such a capacity, and I look forward with great anticipation to what we can accomplish during the next few years. There are three areas to which I am devoting special attention: increasing public awareness and understanding of mathematics, support of individual researchers, and programs that attract talented young people to mathematics.

CMI offices in Cambridge

Concerning the first point, our goal is a gradual but definitive change in the public perception of mathematics. It should be part of our shared culture that mathematics is not a static, finished subject, but one that abounds in unsolved problems and grand intellectual challenges. It should be common knowledge that mathematics provides a deep and powerful way of thinking about the world, one that is extraordinarily useful in fields as diverse as physics and finance, mineral exploration and medical imaging. The Millennium Prize Problems take a significant step toward this goal: With almost no expenditure of resources, the level and frequency of public conversation about mathematics has been raised. But there is much more to be done, and, of course, much more than any single institution can do. For its part, CMI will continue to sponsor public lectures, commission publications, organize events, and contribute to other initiatives. With time, we hope any schoolchild, layman, or professional will be able to call to mind an important mathematician or an important mathematical result, just as today we call to mind the names of Einstein or Edison when physics or invention is mentioned. With time, we should all have a notion of the mathematics which lies behind technologies like those of the Google search engine or internet commerce – or at least we should all know that behind each of these technologies stands, invisible but powerful, a piece of mathematics.

Who is it that solves the difficult problems and creates new mathematical knowledge? It is, of course, the individual mathematician, conversing with colleagues, perservering to find insight and bring it to fruition. Therefore no effort can be more important than the identification and support of promising mathematical researchers. It is to such support – support of its Research Fellows and Scholars – that CMI devotes, and will continue to devote, by far the greatest part of its budget. Fellows, currently ten in number, are appointed for a period of two to five years and select whichever host institution best suits their needs. Fellows define their own research program, travel and pursue collaborations anywhere in the world, supported by CMI.

Research mathematicians do not, of course, arise by spontaneous generation or intervention of miracle. At one time each was a student with a budding interest in this beautiful, challenging, and rewarding subject. It is vital that we identify such students and give them the intellectual sustenance and stimulation needed to thrive, to grow to their full potential. It is obvious in our society that this should be done in athletics and in music, but it is just as true in mathematics. Through its partnership with the Ross and PROMYS programs, its involvement in the Mathematics Olympiad, through the Clay Research Academy held each spring in Cambridge, and through other initiatives, CMI continues to nurture young people's interest and development in mathematics.

We look forward to the coming year and the new mathematics that it will bring.

Sincerely,

James A. Carlson, President