RISE Talks Series

Who?	Professor Steven Kass, Department of Mathematics and Computer Science
What?	The Mathematics of CAT Scans
When?	12:00-1:00 on Thursday, October 8
Where?	Hall of Sciences, Room 326

"[We] are studying these topics because they are interesting in their own right as mathematical problems, and that is what science is all about." —*Allan M. Cormack*

The 1979 Nobel Prize in Physiology or Medicine went to Allan M. Cormack and Godfrey N. Hounsfield "for the development of computer assisted tomography." CAT scans produce detailed cross-sectional images of a body without physical slicing. How? With mathematics. Amazingly, as Cormack discovered years after he began working on the problem, an Austrian mathematician had worked out the mathematics in 1917, but until the development of computers, the practical application to medical imaging was inconceivable. The fascinating mathematics behind CAT scans (which, along with a bit of mathematical history, is the subject of this talk) is just one of many examples of mathematical breakthroughs that have found important applications only decades or centuries after they were developed.