Colloquium

August 31, 4:05 p.m. (9th Period)
(in the Atrium)

Speaker: Francis Adams

Title: Set Theory and Small Sets of Reals

<u>Abstract</u>

There are many ways to answer the question, "Which sets of reals are small?". One which is well known is sets of Lebesgue measure zero. Another, coming from the Baire Category Theorem, are meager sets i.e. sets covered by countably many closed nowhere dense sets. These two notions are not the same, and yet in many cases a theorem proved about sets of measure zero has an analogous version about meager sets and vice versa. After providing some examples illustrating how they are similar, I explain how set theory shows that these collections of small sets of reals are fundamentally different.