Math/Stat Colloquium

Of Mice and Math: mathematical models in medicine

The title is meant to suggest that mathematics can be a link between experimental science and practical medicine, although in reality only a few mice will actually appear in this talk. I hope to tell you a story of discovery through interdisciplinary collaboration. In particular, I will tell you about some collaborations between mathematicians and scientists in which I have taken part. How can we design cancer vaccines? How can we make the ideal time-release tablet? How much blood-thinner should we prescribe? What are the best shoes to wear to improve your balance? When do we need to perform a Caesarian? These problems illustrate different types of mathematical models, and different mathematical techniques used to reach different goals, but all of them bridge the gap from bench to bedside, and beyond.

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Tuesday, Oct. 1st
SC 199, Refreshments 4:15pm, Lecture 4:30pm