SI-CO MATHEMATICS COLLOQUIUM

Mathematics Appreciation Week Keynote Speaker

Helen Moore

Bristol-Myers Squibb

"Mathematical Optimization of Combination Therapy"

Monday, April 17, 2017

Talk at 4:00 – Park 243 Tea at 3:30 – Park 355, Math Lounge

Abstract:

In our attempts to help patients with serious diseases, combination therapy is playing an increasingly important role, and mathematics can help. Instead of running experiments with all possible combinations of dose levels, we can use mathematical modeling to predict the best multiple-drug regimen. This prediction can then be tested experimentally. I will show examples for optimizing combination therapy for patients with HIV and leukemia, with various dosing constraints.

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