Three Undergraduate Research Projects
by
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UMD Mathematics & Statistics Undergraduate Students

Abstract:

A Risk Analysis of Climate Change by Alex Lawrence

Climate change is correlated with increased temperatures, increased risk of damaging floods and an increase in the amount of damage done by natural disasters. We will discuss these changes and how they affect the cost incurred by insurance companies.

The Sum of Largest Values Problem by Isaac Wass

We provide a brief introduction to discrete order statistics generated by $m$ unbiased $n$-sided dice. We consider the sum of the $k$ largest values on these dice, analyzing special cases and give a formula for the probability that the $k$ largest values on $m$ $n$-sided dice has sum $s$.

Numerical Approximation of the Energy Decay Rate for a Vibrating String with Local K-V Damping by Zirui Zhao

We consider a partial differential equation that models the motion of a vibrating string with local Kelvin-Vogit damping to estimate the energy decay rate using finite dimensional approximating schemes. The location of the eigenvalues of these schemes is a good indicator to the energy decay rate.

Thursday, April 23, 2015
2:50-3:00 Refreshments
3:00-4:00 PM
CHEM 150
EVERYONE IS WELCOME

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