• FELLOWS SOCIETY •

FOOD FOR THOUGHT | NETWORKING

Fellows Research Sharing

Online

12:00 AM - 1 :30 PM

Wednesday, April 15, Spring 2020

Registration Link: https://fla.st/2R8Dere
For more information visit: fellowssociety.fsu.edu

Valeria M. Rigobon, *Psychology*

Adult Bilinguals' Orthographic Representations: How Does Cognate Knowledge Contribute To Accurate English Word Spelling?

Spelling a word is more difficult than reading it, suggesting that spelling requires a high-quality orthographic representation and a greater degree of word knowledge. When tasked to spell a complex word with no high-quality representation present, spellers often rely on other information (e.g., letter to sound relationships) to aid spelling. We examined the role of word-level predictors (e.g., word frequency, cognate status) and person-level predictors in monolingual (English) and bilingual (Spanish-English) university students' spelling performance on complex words. Cognates are words that share similar spellings and meanings across languages; thus, we examined whether bilingual participants would show higher spelling accuracy of complex English words that are Spanish cognates and whether prompting to consider Spanish spelling would facilitate bilinguals' spelling accuracy.

Jamie Fox, *Financial Math*

Can we do better than random?

Monte Carlo methods rely on pseudorandom numbers in order to approximate the expectation of a function. Alternatively, quasi-Monte Carlo methods approximate the expectation using special number-theoretic sequences. For low-dimensional functions, quasi-Monte Carlo provides a significantly faster convergence rate to the true solution, but for high-dimensional functions, its advantage is often negligible for moderate samples sizes. However, many numerical results have shown that high-dimensional functions which behave like low-dimensional functions also work very well with quasi-Monte Carlo. Our research investigates how an orthogonal matrix based on a second-degree polynomial chaos approximation can transform a high-dimensional function to behave like a low-dimensional function in order to improve quasi-Monte Carlo simulation.

Elaina Gonsoroski, *Geography*

Relating Indoor Heat Exposure to Emergency Medical Calls in New York City

Extreme heat events are projected to increase in both frequency and intensity with climate change. Understanding the ways in which heat influences health outcomes is critical to mitigating its effect both now and in the future through targeted interventions and adaptations. However, few studies have been able to analyze the role of indoor conditions in influencing health therefore missing a critical component of the environment. This presentation will discuss the results of a case-control study conducted in New York City in partnership with the city's Fire Department's Emergency Medical Services. I analyzed a dataset compiled from emergency calls during the summer of 2016 in order to evaluate the risk of higher indoor temperatures.