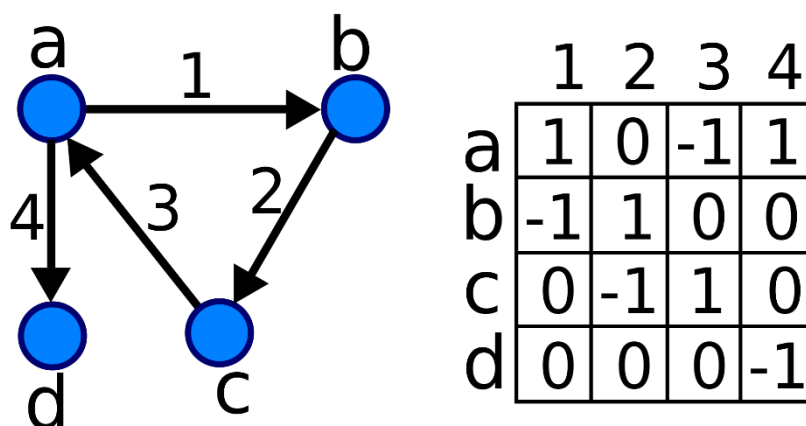# Mathematics Graduate Seminar

Mysteries of Combinatorial Matrix Theory (CMT) with Proof Complexity

Dr. A. Fernandez

On one side, we talk about what is Combinatorial Matrix Theory (CMT), what is Proof Complexity, and we show how to combine this two fields, in order to present a feasible framework to analyze and formalize concepts in CMT. We take a proof-complexity approach to formalize Mini-Max type of reasoning within our framework. And finally, we present a new Permutation Based Algorithm which arise from taking a CMT-approach to an important problem in Matching Theory.

On the other side, I am going to expose my PhD experiences, addressing some questions about why I decided to do a PhD, what were the different stages of the process of doing my PhD, which obstacles that I have faced, and how I exceeded. Finally, I would like to expose how and what I learned in my PhD that helps me to run a better business in my country.

When: Monday, September 26th from 6 – 7pm

Where: CSUCI, Broome Library 1360