# The SUMO Speaker Series for Undergraduates

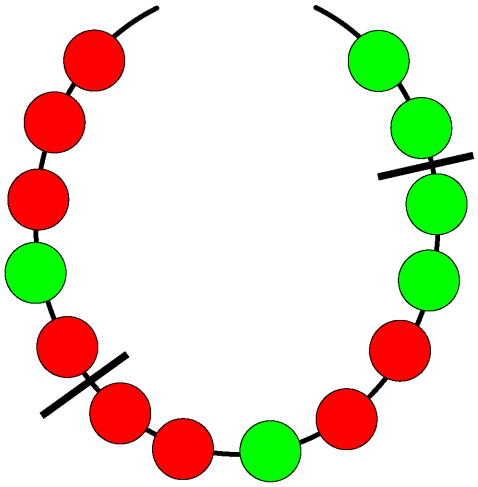
*(Food Provided)*

Wednesday, March 7th

**4:15-5:05, room 380C**

# Interactions between topology and combinatorics

Sam Nariman



ABSTRACT:

It is not hard to find applications of combinatorics in almost any field of mathematics, but the existence of applications of topology in combinatorics is quite surprising. A number of important results in combinatorics and discrete geometry have been proved via algebraic topology. Lovasz' striking proof of Kneser's conjecture from 1978 is among the first and most prominent examples, dealing with a problem about finite sets which has no apparent relation to topology. In this talk we will discuss the necklace splitting problem as an application in combinatorics of the Borsuk-Ulam theorem in topology (whose statement we will review).

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