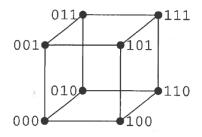
Applied Mathematics Seminar



The three-dimensional hypercube.

Dr. Jiyeon Suh, GVSU Mathematics

Friday, January 20 1-1:50pm

MAK TBD or via zoom (request password from ortizron at gvsu dot edu)

Simple Random Walk on the Hypercube

We first learn in Biology about cell division, and it is used often as an example of the exponential function in the study of Algebra. But we know that there is a chance it may, or it may not divide as we expect it to. Stochastic is another term people use other than probabilistic to refer to this uncertainty of a situation where the sequence of random events is involved. Stochastic modeling means mathematical modeling which also try to address this uncertainty using tools in Probability theory. A Stochastic Process is a sequence of functions defined on a set of random events.

We will use an example of a Stochastic Process called Simple Random Walk (SRW in the title) on the 3D Hypercube graph to be introduced to some basics of Stochastic Process theory and to see the appearance of a classical example of the Markov Chain that is used very often in Stochastic modeling. If you have heard about Markov Chain, learned about it in some courses such as Linear Algebra, or are just curious about what it is, and would like to hear a little story about some Markov chains, please come join this seminar.



