

The SUMO Speaker Series for Undergraduates

(food from Pizza Chicago)
Wednesday, October 21
4:15-5:05, room 380C



Three centuries of the 3-body problem

Professor Samuel Lisi

Abstract : The n -body problem dates back to Newton : given n point masses (celestial bodies) interacting under the influence of (Newtonian) gravity, describe their trajectories. Of particular interest is whether the trajectories of all the bodies stay bounded or not. The 2-body problem is completely understood, but the question becomes very difficult when there are 3 or more bodies. The list of mathematicians who have worked on this problem reads like a who's who : Newton, Euler, Lagrange, Laplace, Poincaré, Kolmogorov, Arnol'd, Herman, Conley... To this day, many questions remain unresolved, even for 3 bodies. This talk will be a short, idiosyncratic survey of some of the beautiful mathematics born of the various

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