The SUMO Speaker Series for Undergraduates

Thursday, March 31 $4{:}30-5{:}20\mathrm{pm},$ Bldg. 380, room 384H

(Food Provided)

The fast multipole method



Professor Lexing Ying

Abstract

The fast multipole method (FMM) is a numerical algorithm for the N-body problem; i.e., evaluating the pairwise interaction between a large number of particles. It was ranked as one of the top ten algorithms of the 20th century and finds a wide range of applications in electromagnetics, astrophysics, statistics, etc. This talk will give a geometric introduction to the key ideas of the FMM.

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