

Easy, Hard, and Impossible: The Limits of Computation

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ABSTRACT: Every day we ask computers to solve problems for us — to find the fastest route across town, fold a protein into the right shape, or prove an unsolved mathematical question. In each case the space of possible solutions is vast. Why is it that for some problems, we can quickly zoom in on the solution, while for others it's like looking for a needle in a haystack? What is it about the structure of a problem that makes it easy, or hard, or even impossible to solve? Moore will take us from simple puzzles like coloring a map to the heights of universal computation, Turing's halting problem, Gödel's unprovable truths, and the nature of mathematical creativity.



Wednesday - October 6, 2021
6:00 – 7:00 PM 008 Kemeny Hall

