
DePrima Lecture

Using Math to Invent Solutions to Large-Scale Human Problems, Just in Time to Survive AI

TUESDAY
NOVEMBER 5TH,
2024

310 LINDE HALL
AT 4PM



Po-Shen Loh

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"Can you get a job with a math degree?" — the question often asked by students considering studying math.

The speaker will share his story of using his math background (which included studying math at Caltech) to devise new win-win solutions to two practical problems that affect our whole society: disease control and education. The mathematical areas of graph theory and game theory feature as inspirations in his work. During the COVID lockdown, he invented an app (<https://straitstimes.com/tech/tech-news/us-prof-keen-to-work-with-spore-on-app-that-warns-users-before-they-are-exposed-to>) which addresses the incentive misalignment problem intrinsic in contact tracing: in the traditional approach, people are asked to isolate to protect others against infection, not to save themselves.

He has also been working for a decade at the intersection of education and technology. His latest creation there is a new, highly-scalable ecosystem for teaching secondary school students how to invent their own solutions to unfamiliar (math) problems, powered by a unique incentive alignment structure that involves professionally trained actors and comedians collaborating with math stars (<https://www.cnn.com/world/professor-po-shen-loh-actors-classrooms-spc>). This comes just in time, as the rise of AI necessitates more advanced skills.

Getting Here: Parking is available in Lot 3 (underground parking #126 on campusmap) on California Blvd. between Wilson and Arden (near the tennis courts). Linde Hall is located directly across the street.

Questions? Please email mathinfo@caltech.edu or call 626-395-4335
