

Talk 150, 11/21/2025

150th meeting of The Lyncean Group of San Diego

Date: Friday, 21 November 2025

Location: Southwestern Yacht Club, 2702 Qualtrough Street, San Diego, CA 92106

Speaker: Dr. Rose Yu, Associate Professor, Department of Computer Science and Engineering, University of California, San Diego (UCSD)



Source: UCSD

Topic: Frontiers of Artificial Intelligence (AI) for Science and Engineering

Abstract: Innovations in AI continue to shape the future of humanity across nearly every industry. However, when applied to scientific discovery and engineering problems, existing AI methods still face many challenges. In this talk, Dr. Yu will discuss her team's research efforts to improve the efficiency, credibility and physical consistency of AI methods for science and engineering tasks. She will showcase the applications of this research to improve transportation, climate modeling and physical sciences.

Speaker bio: Rose Yu is an associate professor in the UCSD department of Computer Science and Engineering and an Amazon Scholar. She is a primary faculty member with the AI Group. Her research interests lie primarily in machine learning, especially for large-scale spatiotemporal data. She is particularly excited about AI for scientific discovery. She has won Presidential Early Career Award for Scientists and Engineers (PECASE), DARPA Young Faculty Award, ECASE Award, NSF CAREER Award, Hellman Fellowship, Faculty Awards from Sony, JP Morgan, Meta, Google, Amazon, and Adobe, several Best Paper Awards, Best Dissertation Award at USC. She was named as MIT Technology Review Innovators Under 35 in AI. For more details, see her [Curriculum Vitae](#).



After lunch, Bill Hagan kicked off the meeting and introduced Dr. Yu.



Dr. Yu presented an historical overview of the development of AI and how AI applications in science and engineering can be more challenging than popular AI applications using tools such as ChatGPT because of the need to comply with physical laws.



This is planned as the first of a three-part series of presentations on AI applications in science and engineering. The subsequent AI presentations will be added to the Lyncean Group's [Upcoming Talks](#) calendar when details have been finalized.



Bill Hagan made a speaker appreciation presentation worthy of Issac Asimov's "I, Robot."



Dr. Rose Yu & Bill Hagan.



Our January 2026 speaker, Dr. Yadi Cao with Dr. Yu & Bill Hagan.

Dr. Yu's presentation slides are posted [here](#).

The Lyncean Group meeting slides are posted [here](#) as a downloadable PowerPoint file. Page manually thru the slideshow to the very end for an audio message. The meeting slides also are available as a pdf file [here](#).