



**THE CHINESE UNIVERSITY OF HONG KONG**  
Department of Information Engineering  
*Seminar*

**Toward Digitizing and Simulating the Physical World**

**By**  
**Prof. Shenlong WANG**  
University of Illinois Urbana-Champaign, USA

**Date : 2 August 2024 (Friday)**

**Time : 2:00 pm – 3:00 pm**

**Venue : Rm 801, Ho Sin Hang Engineering Building, CUHK**

*Abstract*

Our group's goal is to bridge reality and the digital world by enabling computers to create new, highly realistic, easily authored, and physics-plausible simulations to answer "what-if" questions. This talk will summarize our group's recent efforts toward this goal from two different perspectives: data-driven physical simulation as well as generative modeling.

Finally, I will provide a brief personal outlook on open research topics that involve combining these two worlds.

*Biography*

Shenlong Wang is an Assistant Professor in the Department of Computer Science at the University of Illinois Urbana-Champaign, specializing in computer vision and robotics. His research focuses on creating a digital replica of the world and simulating realistic new content to train and validate autonomous systems. Shenlong's past work received IROS Best Application Paper Runner-Up and CVPR Best Paper Candidate. His contributions to autonomy and simulation have led to 25 filed patents. Shenlong has received the NSF CAREER Award, Amazon Research Award, and various fellowships from Facebook, Adobe, and the Royal Bank of Canada. He regularly serves as an area chair for conferences in computer vision, robotics, and machine learning.

**\*\* ALL ARE WELCOME \*\***