



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

**Transport Layer Innovations in Ultra-low Latency Video Streaming**

by

**Prof. Zili Meng**

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**Date : 1 November 2023 (Wednesday)**

**Time : 11:00am – 12:00pm**

**Venue : Rm 833, Ho Sin Hang Engineering Building, CUHK**

Abstract

In the post-pandemic era, ultra-low latency video streaming is increasingly popular nowadays. Numerous applications like videoconferencing, cloud gaming, virtual reality, remote driving are coming or have come to our daily life. However, these interactive video streaming applications require ultra-low and consistent latency to ensure the interactive experience, which challenges how the sender is transmitting packets and reacting to fluctuations nowadays.

My research rethinks the latency in interactive video streaming in an end-to-end way, and tries to share some preliminary thoughts on what the network and related communities should do to enable the wide deployment of these applications. In this talk, I will present our work on how to achieve a consistent low latency for interactive video streaming. Specifically, I will talk about how we control the tail latency on the transport layer from the perspective of last-mile router (Zhuge, SIGCOMM'22) and end devices (Hairpin, NSDI'24).

Biography

Zili Meng is an assistant professor at HKUST. He received his B.Eng. (Hons) and Ph.D. (Hons) from Tsinghua University. His current research interest focuses on the ultra-low latency applications in the real world. He has published 6 papers at SIGCOMM and NSDI. He is the recipient of Microsoft PhD Fellowship (Asia), the Gold Medal of SIGCOMM 2018 Student Research Competition, best paper awards from ICC'20 and IWQoS'21, and SIGCOMM China Doctoral Dissertation Award.

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