

Room D (Capri), 2F

Chair: Di Che (Nokia Bell Labs)

**Tu3D**

June 30 (Tue), 2026

High-Symbol-Rate, High-Capacity Optical Transmission

13:15-14:45

**Tu3D-1 Tutorial 13:15-14:15**



**DSP-Enabled High-Symbol-Rate Optical Transmission with Wideband Analog Front-Ends**

Masanori Nakamura  
NTT, inc.

Increasing symbol rates beyond 200 GBd is key to scaling per-wavelength capacity in optical transmission. This tutorial covers bandwidth-extension methods using wideband electrical front-ends and digital decomposition and recombination processing, and DSP-based equalization and impairment compensation techniques.

**Tu3D-2 Invited 14:15-14:45**

**Ultra-Wideband Multi-Band Transmission and Band-Expansion Using Wavelength Conversion**

Tomoyuki Kato  
Finity, Inc.

This paper presents wavelength conversion techniques for ultra-wideband multi-band optical transmission. This approach facilitates spectral expansion and increased utilization across the transparent fiber window, aiming to boost overall capacity for future high-demand networks.