

Workshop Speaker	
Full Name	Chongjin Xie
Affiliation	Alibaba
Presentation Title	Coherent is more attractive for short- and intermediate-haul inter-datacenter applications
Biography	
<p>Chongjin Xie is a senior director and chief communication scientist in Alibaba Infrastructure Service at Alibaba Group, leading an optical research, architecture, design and testing team to develop datacenter optical interconnects and networking technologies to support Alibaba online platform and cloud services. Prior to joining Alibaba Group in 2014, Dr. Xie was a distinguished member of technical staff at Bell Labs, Alcatel-Lucent (now Nokia), doing research on optical communication systems and networks. He did his postdoctoral research at Chalmers University of Technology in Sweden from 1999 to 2001, and received his M.Sc. and Ph.D. degrees from Beijing University of Posts &amp; Telecommunications in 1996 and 1999, respectively. Dr. Xie has published one book, 3 book chapters and over 200 journal and conference papers. He is an associate editor of Journal of Lightwave Technology, and has served as chairs, TPC chairs or TPC members in many conferences. Dr. Xie is a Fellow of OSA and a senior member of IEEE.</p>	
200 words abstract	
<p>Due to its lower cost and complexity, direct detection had been the primary choice for short-reach applications, whereas coherent-detection technology has been widely used in long-haul systems, which require a higher spectral efficiency and better performance. With the advances in digital signal processing and bit rates getting higher, the boundary between direct detection and coherent detection becomes blurred in short- and intermediate-haul applications. In this presentation, we will discuss the pros and cons of these two technologies, and show why coherent detection technology is more attractive for real deployment for longer than 10-km datacenter interconnect applications, especially for bit rates of 400G and beyond.</p>	