

Title: Transmission and switching techniques for data centers

Chairperson:

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Sponsors of Workshop (Companies and/or Research Projects): N/A

Description:

Data center traffic is growing rapidly at an yearly rate of ~25%. Photonic technologies for transmission and switching can provide solutions to deal with this fast growth with high capacity, compact footprint and low power consumption.

Optical interconnects within and between the data centers are key technologies. High data rate and low cost are desired in designing and implementation of transmission systems. Modulation and multiplexing techniques will be discussed and explored. Furthermore, the back planes of the electronic switches seem to impose limitations on data transfer speed and interconnect density. Optical switching may be able to handle large traffic of coarse granularities if combined with electronic switches for fine granularities. At the device level, in addition to VESELs and other III-V components, silicon photonics has penetrated into data centers with PSM4 and WDM.

This workshop will address the latest achievements in datacenter transmission and switching technologies at the system and device levels. Technology roadmap and forward looking research will be discussed in an interactive manner. Current status and future perspectives will be provided by experts from both industry and academia.

List of Speakers (if available): N/A