North American Workshop on Silicon Photonics for High Performance Computing

May 17-18 2018, Fort Collins, CO

Multi-Tbps scale InP-based systems-on-chip photonics for high capacity optical interconnects

Pavel Studenkov
Infinera
pstudenkov@infinera.com

Abstract

State of the art large scale InP-based coherent Tx (Rx) PICs with hybrid integrated SiGe drivers have been demonstrated to operate at up to 100GBd data rates, and utilize advanced modulation formats such as 64QAM, to enable Tb/wave transmission capacity. As PIC technology continues to scale, it remains at the leading edge of system performance, combined with superior reliability enabled by high levels of integration.

Bio

Dr. Pavel Studenkov holds M.S. degree in semiconductor physics from St. Petersburg State Technical University, Russia (1993), and M.S. and Ph.D. in electrical engineering from Princeton University, NJ, USA (1998/2001). From 2001 to 2006 he worked at ASIP in Somerset, NJ developing twin-waveguide technology for monolithic photonic integration on InP. Since 2006 he has been with Infinera in Sunnyvale, CA where he was involved in development of several generations of densely integrated InP PICs for DWDM optical links. Dr. Studenkov has co-authored more than 30 scientific papers and holds 12 patents.