Optical Interconnect technologies are rapidly gaining momentum in HPC and DataCenter architectures, aiming at enabling an energy-efficient transition to Exascale processing systems. The recent commercialization of mid-board optical subassemblies and silicon photonic transceiver modules confirms the benefits of bringing optics closer to the processor and memory chip modules, while world-wide efforts for new Rack-Scale and Disintegrated Computing architectural schemes rely on the extensive use of forward-looking optical interconnect platforms. The main purpose of this Special Issue is to consolidate recent research and the most important advances along all relevant technologies and architectures in the field of optical interconnects.

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