

Integrated Photonics – Are the design tools ready for HPC Design?

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Abstract –

Photonic design today mirrors IC design in the early 80's. Design tools were basic, and led to low productivity.

Tools and methodologies need to improve to enable the design of HPC's. Photonic designers will need to adopt some traditional EDA methodologies and tools in order to create the large HPC designs. These tools today regularly produce multi – billion gate CMOS designs that are correct the first time.

Photonic designer will need to accept design abstracts in order to improve productivity. They also need to work with the EDA companies on developing photonic specific standards.

To get HPC in a timely manner, we need to grow the number of designer who can implement the photonic designs.

Based on the improvements in the design tools over the past 30 years, adopting abstractions, methodologies and standards, we can provide the tools that are needed for HPC design.

This talk will focus on what methodologies and design tools are needed for you to design and verify a high performance computer design.

Bio – Tom started his career as an intern supporting the memory designers at Harris Semiconductor. After graduation from Clemson University he became a full custom designer at Gould AMI. He continued his custom design work Wafer Scale Integration. Tom has spent the last 25 years working in various EDA applications, sales, and marketing roles. Tom is current a product manager in Mentor ICDS division, responsible for the photonics design tools.