



## WEBINARS

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# Manufacturing-Aware Design of Photonic Integrated Circuits

**Thursday, September 5, 2024 1:00 PM - 2:00 PM EDT**

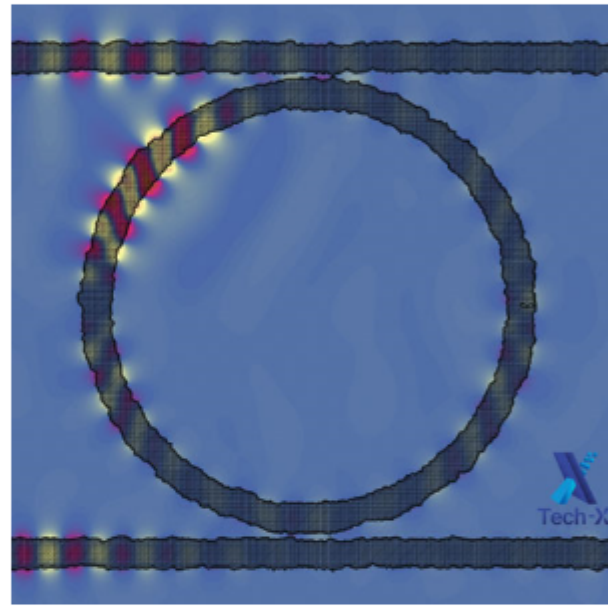
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PICs are a rapidly growing technology due to the unquenchable demand for high bandwidth communications in the data center. As the industry grows, new applications are being established to leverage the capabilities and advantages that PICs provide, and a robust design and manufacturing industry has arisen to meet these needs. Part of the need for industry maturation includes the development of a design process that accounts for manufacturing variations and imperfections prior to tape-out. Unfortunately, accounting for manufacturing realism adds to the computational cost of an already computationally expensive problem. Photonic devices containing large components, such as micro-ring resonators and grating couplers, can be at the limits of finite-difference time-domain (FDTD) simulations and limit the ability to perform parameter scans over manufacturing variations.

The development of accelerated computing using distributed computing across multiple graphics processing units, as well as inexpensive and easily available high-performance computer platforms at Amazon Web Services, enables manufacturing-aware explorations during design. In this webinar, John Cary from Tech-X demonstrates these capabilities with XSim, a new, highly accurate FDTD simulation tool for PIC designers. Accounting for manufacturing variations and imperfections in the design with more accuracy improves tape-out confidence before submission of a design for fabrication and testing. Presented by [Tech-X](#).



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- [Lights! Camera! Optics! Tricks of the Trade for Developing Front Ends for Machine Vision Systems, 9/10/2024 1:00:00 PM EDT](#)

## Archived Webinars

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