

High Index Contrast Integrated Optical Devices Based on Microring Resonators for application in optical communication and sensing

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In the last years much effort has been made to arrive at optical integrated circuits with high complexity and advanced functionality for application in optical communication and optical sensing. For this aim high index contrast structures, like optical microresonators, are employed that allow for a large number of functional elements within a given chip area: VLSI photonics. Experimental results of work performed at MESA+ will be presented including a microresonator based, ultra-compact reconfigurable OADM at 40 Gbit/s fabricated in SiON technology. In addition a discussion will be given of new challenges and possible solutions.

Monday, March 6, 2006. 4:00pm-5:00pm. Watson 104

Refreshments will be available in the Watson Lobby at 3:45pm.

Host: Prof. Kerry Vahala