

**SAVE THE DATE!**

# Workshop Photonics Packaging

**Date:** Friday, October 23, 2009

**Location:** Aristo Utrecht, Brennerbaan 150, 3524 BN Utrecht  
(located at railway station Utrecht-Lunetten, free car parking)

- Presentation of the new MIT roadmap on photonics
- Short Course micro-photonics
- Discussion of novel photonic packaging concepts.

## Program

9:00h	Reception and coffee	
9:30h	Welcome address	<b>Dr. Willem Hoving</b> <i>XiO Photonics, Enschede</i>
9:35h	Short Course micro-photonics I: Technology Elements	<b>Prof. Lionel Kimerling</b> <i>Massachusetts Institute of Technology, Cambridge (MA)</i> <i>Director Microphotonics Center,</i> <i>Industry Consortium Program Manager</i>
10:30h	Coffee break	
10:50h	Short Course micro-photonics, II: the Roadmap to Implementation	
12:00h	Lunch break	
13:00h	Photonics packaging scenarios discussions with the audience	<b>Mr. Rick Clayton</b> <i>Clayton &amp; Associates, Kanata (ON), Canada</i> <i>Photonics business and technology consulting</i>
15:00h	Tea break	
15:30h	System aspects and photonics packaging	<b>Dr. Richard R Grzybowski</b> <i>Corning Inc., Corning (NY)</i> <i>Director, Systems Engineering &amp; Program Management</i>
16:30h	Reception and drinks	
17:30h	End of the workshop	

**In collaboration with the CTR  
Microphotonics Roadmap Group  
of the MIT, Cambridge**

- Packaging of optoelectronics for high volumes is complicated by:
  - lack of consensus on various options
  - lack of knowledge about some fundamental aspects
  - high sensitivity to changes in configuration and environment
  - onerous requirements on physical positioning and stability
- A key missing element is a highly manufacturable coupler
  - spatially adaptive
  - locally precise enough
  - globally compliant
  - rapidly "fixable"
  - i.e. there is no optical "wire bond"
- (ref. R.Clayton)
- Lack of consensus
  - Edge vs surface coupling
  - Wavelength choices
  - Material systems (opto & package)
  - Source architecture
  - Single mode vs multi-mode
- Lack of knowledge
  - Is hermetic packaging required?
  - Do we need isolation?
- High sensitivity to configuration
  - Optical isolation
  - Temperature and gradients
  - Signal "direction"
  - Connector interface
- Onerous physical requirements
  - Micron to sub-micron position requirements
  - WDM sensitivity to temperature (differences)
- These affect technology insertion approaches and the ability to provide a "future proof" evolution path

Registration fee: 250 Euro, including lunch

Students of IOP Photonic Devices, STW and Memphis projects: 50 Euro

Registration deadline 9 October 2009; late registration +20%

**Registration and information:**

[workshop@xiophotonics.com](mailto:workshop@xiophotonics.com)

