



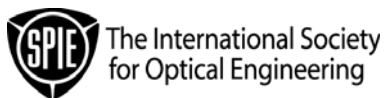
## OISE

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### Technical Conference and Tabletop Exhibit

November 4 - 5, 2004

[The University of North Carolina at Charlotte](#)  
Charlotte, North Carolina



**GENERAL DYNAMICS**  
Armament and Technical Products

***NORTHROP GRUMMAN***  
*Space Technology*

**SYNOPTICS**

## Program Committee

### Conference Co-Chairs

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## About Optics in the Southeast

### Photonic Devices, Imaging & Sensing, Micro & Nano Optics, Optical Science and Materials, Optical Communications, Education and Initiatives

The 2004 meeting of Optics in the Southeast will be held on Thursday and Friday, November 4 - 5, 2004. The University of North Carolina at Charlotte will host the meeting. Optics in the Southeast showcases optics research, programs and other initiatives occurring in the universities, industries, laboratories and organizations in the southeast region. The regional forum provides an excellent opportunity for students to present their latest research either as an oral or poster presentation. Traditionally about 40% of the presentations have come from students. Presentations by representatives from industry, government, research laboratories and universities describing new initiatives, programs and directions are welcome.

### Third Annual Optoelectronics Symposium

Everyone is invited to stay for the 3rd Annual Optoelectronics Symposium of the UNC Charlotte Center for Optoelectronics and Optical Communications on Saturday, November 6, located at the Charlotte Hilton at University Place. Exhibitors and student posters are encouraged. Registration is required at this event, but there is no registration fee.

3rd Symposium Annual Optoelectronics Symposium Program:

8:00 AM Breakfast and exhibits  
- 9:00  
AM

9:00 AM- Dr. James Woodward, Chancellor, *UNC Charlotte*  
9:05 AM

9:05 AM- Dr. Robert McMahan, Sr. *Science Advisor to NC*  
9:15 AM *Governor Easley*

9:15 AM- Dr. M.A. Fiddy, *UNC Charlotte Optics Center*, "Center  
9:30 AM Update"

9:30 AM- Dr. Fred Welsh, *formerly of OIDA*, "The Global  
10:00 AM Optoelectronics Market"

10:00 AM- Dr. George Simonis, *Microphotonics Branch Chief,*  
*formerly Acting Chief, Electro-optics and Photonics*

10:30 AM *Division at ARL*, "Optoelectronics Research at ARL"

10:30 Break and exhibits  
AM-  
11:00 AM

11:00 Dr. Steve Brueck, Director of the Center for High  
AM- Technology Materials, *Univ. of New Mexico*, "Phat  
11:30 AM Photons for Nifty Nanoscience"

11:30 AM Dr. Philip St. Russell, *CTO BlazePhotonics and*  
- 12:00 *Professor, U. Bath, U.K.* "Photonic Crystal Fibers"  
PM

12:00 Lunch and exhibits  
PM-1:00  
PM

1:00 PM- Dr. Andrew Westwood, *Agilent Technologies*, "Next  
1:30 PM generation integrated optical technologies"

1:30 PM- Dr. George Barbastathis, *MIT*, "Imaging using volume  
2:00 PM holograms"

2:00 PM- Dr. Kenneth Gonsalves, Distinguished Professor,  
2:30 PM Polymer Materials/Inorganic Chemistry, *UNC Charlotte*,  
"Next Generation Lithography: EUV down to the 32 nm  
node"

2:30 PM- **Northrop Grumman Invited Lecture:** Dr. M. Richardson & Dr. C-S  
3:00 PM Koay, *Univ. of Central Florida* "EUV Lithography: Overcoming the  
Source Problem"

3:00 PM Break and exhibits  
- 3:30  
PM

# CONFERENCE SCHEDULE AT A GLANCE

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## THURSDAY, November 4, 2004

7:30 AM		On-Site Registration (7:30 - 5:00)	Welwyn
8:30 - 10:00	SE01-A	Organic, Polymeric, and Hybrid Optical Materials; Structures and Devices	University A
8:30 - 10:15	SE03	Optical Imaging and Sensing	University B
8:30 - 10:00	SE06	Photonic Devices, Systems, and Optical Networks	Walden
10:00 - 10:30		Refreshments/Exhibits	University CDE
10:30 - 11:15	SE01-A	Organic, Polymeric, and Hybrid Optical Materials; Structures and Devices	University A
10:30 - 12:00	SE03	Optical Imaging and Sensing	University B
10:30 - 12:00	SE06	Photonic Devices, Systems, and Optical Networks	Walden
12:00 - 1:30		Box Lunch and Exhibits	University CDE
12:30 - 1:30		Poster Session	University CDE
1:30 - 2:15	SE01-B	Photonics, Crystals, and Photonic Band Gap Structures	University A
1:00 - 3:00	SE05	Non-Linear Optics and Ultrafast Phenomena	University B
1:30 - 3:00	SE06	Photonic Devices, Systems, and Optical Networks	Walden
3:00 - 3:30		Refreshments/Exhibits	University CDE
3:30 - 4:30	SE01-C	Inorganic Dielectric Optical Materials and Structures	University A
3:15 - 5:00	SE05	Non-Linear Optics and Ultrafast Phenomena	University B
3:30 - 5:00	SE06	Photonic Devices, Systems, and Optical Networks	Walden
5:30 - 7:00		Tour of Optics Building	Registration Desk
<b>6:30 - 9:00</b>		<b>Plenary Session, Cash Bar and Dinner</b>	<b>University AB</b>

## Visualizations and Visual Illusions: How the Mind Tricks Us

**Eric Mazur**

Harvard College Professor

Gordon McKay Professor of Applied Physics and Professor of Physics

Division of Engineering and Applied Sciences

Harvard University

Cambridge, MA 02138



# Annual Symposium (See Program Schedule Below)

## Center for Optoelectronics and Optical Communications

Saturday, November 6, 2004

### Immediately Following

#### *Optics in the South East November 4<sup>th</sup> and 5<sup>th</sup> (see <http://www.osa.org/opticssoutheast>)*

Keynote/plenary talk to be presented at the *Optics in the South East* on November 4th during the conference dinner at 7.00pm

#### *Visualizations and visual illusions: how the mind tricks us*

**Dr. Eric Mazur** Gordon McKay Professor of Applied Physics Harvard University

**Abstract:** Neurobiology and cognitive psychology have made great progress in understanding how the mind processes information – in particular visual information. The knowledge we can gain from these fields has important implications for the presentation of visual information and student learning.

#### *Symposium Reception Friday November 5<sup>th</sup>*

Follows the last session of OISE and will be held in the Glenwaters Room at the Hilton Charlotte, University Place from 5.00 to 7.00pm

#### *Symposium Program on Saturday November 6th*

**8.00 – 9.00am** *Breakfast and exhibits*

**9.00am** *Dr. James Woodward, Chancellor, UNC Charlotte*

**9.05am** *Dr. Robert McMahan, Sr. Science Advisor to NC Governor Easley*

**9.15** *Dr. M.A. Fiddy, UNC Charlotte Optics Center, "Center Update"*

**9.30** *Dr. Fred Welsh, formerly of OIDA, "The Global Optoelectronics Market"*

**10.00** *Dr. George Simonis, Microphotronics Branch Chief, formerly Acting Chief, Electro-optics and Photonics Division at ARL, "Optoelectronics Research at ARL"*

**10.30** *Break and exhibits*

**11.00** *Dr. Steve Brueck, Director of the Center for High Technology Materials, U. New Mexico, "Phat Photons for Nifty Nanoscience"*

**11.30** *Dr. Philip St. Russell, CTO BlazePhotonics and Professor, U. Bath, U.K. "Photonic Crystal Fibers"*

**12.00-1.00** *Lunch and exhibits*

**1.00** *Dr. Andrew Westwood, Agilent Technologies, "Next generation integrated optical technologies"*

**1.30** *Dr. George Barbastathis, MIT, "Imaging using volume holograms"*

- 2.00 *Dr. Kenneth Gonsalves, Distinguished Professor, Polymer Materials/Inorganic Chemistry, UNC Charlotte, "Next Generation Lithography: EUV down to the 32 nm node"*
- 2.30 Northrop Grumman Invited Lecture:  
*Dr. M. Richardson & Dr. C-S Koay, U Central Florida "EUV Lithography: Overcoming the Source Problem"*
- 3.00-3.30 *Break*

For details contact Dr. Michael A. Fiddy ([mafiddy@uncc.edu](mailto:mafiddy@uncc.edu)). There is no registration fee for the symposium.