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## 2011 MIIPS<sup>®</sup> Pulse Shaping Workshop

August 19-21, 2011  
Michigan State University

Talks will take place in the BPS Building, Room 1425. Hands-on session will be held in Rooms 47, 50 or in the sub-basement Room 4 of the Chemistry Building (adjacent to BPS), according to group assignments. A shuttle will be available to take participants from the University Quality Inn to the workshop. Free parking is also available at the parking ramp across from the Chemistry Building after 6:00 pm on Friday, and all day Saturday and Sunday. A detailed map can be found at: <http://maps.msu.edu/interactive/index.php?location=Z9BQ>

### Friday, August 19

- 5:00 – 6:50 pm Registration and Dinner – BPS Building Courtyard  
(Posters session: Posters will be up until Saturday at noon)
- 6:50 – 7:00 pm **Dr. Igor Pastirk, CTO, Biophotonic Solutions**  
Welcome Remarks
- 7:00 – 7:45 pm **Dr. Dmitry Pestov, Applications Scientist, Biophotonic Solutions**  
Three methods to characterize and compress femtosecond pulses with a pulse shaper
- 8:00 – 8:45 pm **Professor Marcos Dantus, Michigan State University**  
Time resolved nonlinear intrapulse interferometry and its application to electronic coherence studies

### Saturday, August 20

- 7:30 – 8:30 am Complimentary continental breakfast at hotel
- 8:50 – 9:00 am **Prof. Marcos Dantus, Michigan State University**, Introduction
- 9:00 – 10:00 am **Prof. Andrew Weiner, Purdue University**  
The pulse shaper, from early concepts to the state of the art
- 10:00 – 10:30 am Coffee Break, Atrium
- 10:30 – 11:15 am **Prof. Koji Hatanaka, Tokyo University**  
Applications of pulse shaping to intense laser-matter interactions
- 11:15 – 12:00 pm **Dr. Sukesh Roy, Spectral Energies LLC**  
Applications of pulse shaping to gas phase sensing
- 12:00 – 1:00 pm **Lunch and Workshop Photo – BPS Building Courtyard**  
(Posters should be up.)
- 1:00 – 1:45 pm **Res. Prof. Vadim V. Lozovoy, Michigan State University**  
Precision and accuracy of MIIPS
- 1:45 – 2:15 pm **Bai Nie, Dantus Research Group, Michigan State University**  
New generation ultrafast fiber lasers producing high intensity sub-45 fs pulses, and their applications.

**Hands-on Sessions and Demonstrations: Participants will be divided into 5 groups A-E**

- Setup 1:** Rm. 47 Supercontinuum source producing 0.3 mJ/pulse sub-7 fs pulses, and its use for real-time single-beam CARS with chemically selective excitation.
- Setup 2:** Rm. 50 Multiphoton microscopy with sub-15 fs laser source, characterization and compression at the focal plane when using a high-NA objective
- Setup 3:** Rm. 47 Ultrafast fiber laser producing sub-45 fs pulses
- Setup 4:** Rm., 47 Ultrafast Ti:Sapph Regenerative Amplifier producing 0.75 mJ/pulse shaped amplified pulses, characterization, compression and shaping.
- Setup 5:** Rm. SB-4 Venteon Pulse One compressed to sub-5fs, KM Labs Griffin; Toptica FemtoFiber Pro compressed to sub-10fs.

	RM 47	RM 47	RM 47	RM 50	RM SB-4
2:30 – 3:15 pm	A	B	C	D	E
3:15 – 4:00 pm	E	A	B	C	D
4:00 – 4:15 pm					
4:15 – 5:00 pm	D	E	A	B	C
5:00 – 5:45 pm	C	D	E	A	B
5:45 – 6:30 pm	B	C	D	E	A

7:00 – 9:00 pm **Banquette** – SanSu Japanese Restaurant, 4750 Hagadorn Rd.

**Sunday, August 21**

- 8:00 – 8:40 am Complimentary continental breakfast at hotel
- 9:00 – 12:00 pm Installation and using the Utility Software, **Biophotonic Solutions Inc.**

We are grateful for the generous support from our sponsors:

