

CONFERENCE INFORMATION

HOTEL LOCATION: The 2016 conference will be held at the Wyndham Grand Pittsburgh Downtown

Wyndham Grand Pittsburgh Downtown
600 Commonwealth Place, Pittsburgh, PA 15222
Tel: (412) 391-4600

REGISTRATION: The conference registration desk at the Wyndham will be open during the hours listed below. Please check in upon arrival. Badges are required to attend the technical sessions.

ONSITE REGISTRATION HOURS

The registration desk is located in the Grand Ballroom Foyer

Tuesday, May 31	7:00 a.m. - 6:00 p.m.
Wednesday, June 1	7:30 a.m. - 5:00 p.m.
Thursday, June 2	7:30 a.m. - 5:00 p.m.
Friday, June 3	7:30 a.m. - 12:00 p.m.

CONFERENCE SCOPE: EIPBN, the “3-Beams”, Conference, is the premier conference on the science and technology of nanopatterning. Traditionally focused on electron, ion, and photon beams, (the 3 beams), the technology of nanofabrication covered in this conference has grown to include nanoimprint and molecular self-assembly as well. This conference is the place to hear the newest techniques and the latest advances in patterning and device fabrication technology.

CONFERENCE EVENTS

Tuesday Short Courses

The Conference opens on Tuesday morning with 2 short courses:

1. EIPBN will offer a short course this year on State-of-the-Art Nanofabrication - Fundamentals and Advanced Applications. This course is intended to bring researchers new to the field of nanofabrication up to speed on the fundamentals of techniques such as thin film deposition and etching, lithography and characterization. A detailed discussion of advanced applications of complex nanofabrication will also be presented. The course will run Tuesday, May 31st from 8:30 to 3:30 pm with a break for lunch.
2. The AVS is offering a course on Vacuum Fundamentals and Pumping The course objectives
 - Learn vacuum fundamentals including pipe flow and contamination effects.
 - Learn selected pump technologies for high and low vacuum regimes.
 - Conduct hands-on flow tests and pump disassembly, with various models on display.

Commercial Session

On Tuesday, 3:00 pm – 6:00 pm, the Commercial session is open. The Commercial Session features vendors of materials and equipment which are relevant to the conference. Here is your

opportunity to meet with vendors who are eager to discuss their latest lithography systems, materials, and characterization instruments and related products.

The commercial exhibition schedule is:

Tuesday, May 30, 3:00 pm to 6:00 pm
Wednesday, June 1, 10:00 am – 4:30 pm
Thursday, June 2, 10:00 am – 1:00 pm

Participating companies include system suppliers for lithography, metrology, inspection, processing, nanofabrication, and characterization. They also include suppliers of simulation tools, data management, materials, services and subsystems. It is a complete cross section of our industry. Representatives from all suppliers are available to give information about their companies and products and to answer your questions. The suppliers especially welcome students who wish to learn more about industry and its opportunities. The setting is informal, and light refreshments are available on Tuesday from 3:00 pm to 6:00 pm.

Participants in this year's commercial session include: A&D Company Ltd., Amuneal Mfg Corp, Applied Physics Technologies, Carl Zeiss Microscopy, LLC, Cornell University, CRESTEC Corporation, Electron Microscopy Sciences, Electron Optica/MEBS, GeniSys GmbH, Heidelberg Instruments Inc., JEOL USA, INC, Keysight Technologies, MicroChem Corp, Nanonex Corporation, Nanoscribe GmbH, PhoeniX Software, Raith America, Inc., ReynoldsTech Fabricators, Inc., solar-semi GmbH, Specialty Coating Systems, STS-Elionix, SwissLitho AG, Trion Technology, ULTRATECH/CNT, University of Pittsburgh, Vistec Electron Beam GmbH, Zyvex Labs LLC.

Tuesday Welcome Reception

Tuesday night join us at the Welcome Reception from 7:00 pm – 9:30 pm in the Commonwealth Room. One ticket to the Welcome reception is included in the registration fee. Additional tickets are for sale at registration.

Technical Sessions

The Plenary session begins on Wednesday morning. The rest of the conference has three parallel sessions from Wednesday afternoon through Friday afternoon.

Poster sessions begin after the plenary session on Wednesday, and again in the evening. Refreshments will be provided. The poster schedule is:

- Wednesday, 10:50 am – 1:00 pm – a box lunch will be served
- Wednesday, 5:00 pm – 7:30 pm – light snacks will be available

The Poster are available for viewing on Thursday, June 2, 10:00 am – 1:00 pm. The Poster presenters will not be at the posters on Thursday.

Posters with invited status will be considered for the best-poster award by a panel of judges. Awards will be announced at the conference banquet.

Thursday Banquet

Thursday's banquet will be held at the Phipps Conservatory and Botanical Gardens. Banquet tickets cost \$100.00 each. Buses will depart the Wyndham Hotel from 5:30 pm – 5:45 pm. They will return to the hotel departing Phipps Conservatory at 9:30 pm.

Specialty Tours

1. Wednesday evening tours are scheduled for the University of Pittsburgh and Carnegie Mellon Nanoscience Centers as well as the manufacturing center for the Kurt J Lesker company. Buses leave the Wyndham promptly at 7 and advance registration is required. These tours were sold out in Advance Registration
2. A bus tour to Frank Lloyd Wright's masterpiece, Fallingwater is planned for Saturday, June 4th, departing the Wyndham at 9:30, returning by 3pm. \$42 per person includes transportation and admission.

SPONSORS: EIPBN gratefully thanks our conference sponsors. Our current list of sponsors is:

- AVS, APS Physics, Optical Society of America, and the US Department of Energy for their general sponsorship
- GenlSys GmbH for the Wednesday morning coffee break
- JEOL USA, Inc. for the conference padfolio and pens
- NuFlare Technology, Inc. for the conference lanyard
- Raith America, Inc. for the Poster Reception and student support sponsorship
- STS-Elionix for the conference bag

MICROGRAPH CONTEST: On the lighter side, for the 22nd year, the conference will sponsor a micrograph contest. Here is your chance to share those strange or beautiful micrographs that you have taken in the course of your work! John Randall, the 1995 conference chairman, presides over this annual event. See the EIPBN website for details.

PUBLICATION: The proceedings of this conference will be published in the November/December 2016 issue of the Journal of Vacuum Science and Technology (JVST). Accepted papers will have publication charges waived and AVS offers membership free to the first and corresponding authors on accepted JVST papers. This eliminates page charges as members publish for free.

CONFERENCE INFORMATION ON THE WEB: You can find up-to-date information on all aspects of EIPBN at www.eipbn.org.

Tuesday, May 31			
Start Time	End Time	Session	Location
7:00 am	6:00 pm	Registration	
8:30 am	3:00 pm	State-of-the Art Nano-fabrication-Fundamentals and Advanced Applications	Kings Garden 5
8:30 am	3:00 pm	AVS Workshop Vacuum Fundamentals & Pumping	Sterlings Room
3:00 pm	6:00 pm	Commercial Exhibit	Grand Ballroom
7:00 pm	9:30 pm	Welcome Reception	Commonwealth Room
Wednesday, June 1			
Start Time	End Time	Session	Location
7:30 am	5:00 pm	Registration	Grand Ballroom Foyer
8:15 am	10:50 am	Plenary Session	Kings Garden 4/5
10:00 am	4:30 pm	Exhibits	Grand Ballroom
10:50 am	1:00 pm	Poster Session	Grand Ballroom
1:15 pm	3:15 pm	Session 1A – Advanced Etching Techniques 1	Kings Garden 3
		Session 1B – Optical and EUV Lithography	Kings Garden 4
		Session 1C – Nanofabrication & Biology 1	Kings Garden 5
3:15 pm	3:35 pm	Break	
3:35 pm	5:25 pm	Session 2A - Electron Beam Lithography 1	Kings Garden 3
		Session 2B – Tip-based Lithography	Kings Garden 4
		Session 2C – Nanoelectronics 1	Kings Garden 5
5:30 PM	7:00 PM	Poster Session	Grand Ballroom
7:00 pm buses depart		University of Pittsburgh and CMU tour	Advance Registration required
7:00 pm buses depart		Tour of the manufacturing center for the Kurt J Lesker company	Advance Registration required
5:30 PM	7:00 PM	Poster Session	Grand Ballroom
6:00 pm	7:00 pm	Student Mentoring Program	Grand Ballroom Foyer
Thursday, June 2			
Start Time	End Time	Session	Location
7:30 am	5:00 pm	Registration	
8:00 am	9:50 am	Session 3A – Nanofabrication for Quantum Computing	Kings Garden 3
		Session 3B – Multi-beam Characterization and Lithography	Kings Garden 4
		Session 3C – Nanophotonics 1	Kings Garden 5
9:50 am	10:10 am	Break	
10:00 am	1:00 pm	Commercial Exhibit and Poster viewing	Grand Ballroom
10:10 am	11:50 am	Session 4A - Plasmonics	Kings Garden 3
		Session 4B – Novel Imaging and Characterization Techniques	Kings Garden 4
		Session 4C – Nano-mechanical Systems	Kings Garden 5
12:00 pm	1:30 pm	Women in Nanofabrication	Bridges Room

		Networking lunch and panel discussion	
12:15 pm	1:30 pm	Lunch on your own	
Start Time	End Time	Session	Location
1:50 pm	3:40 pm	Session 5A – Nanoimprint Lithography 1	Kings Garden 3
		Session 5B - Atomic Layer Deposition	Kings Garden 4
		Session 5C – Nanofabrication through Self-Assembly	Kings Garden 5
3:40 pm	4:00 pm	Break	
4:00 pm	5:00 pm	Session 6 – EIPBN History	Kings Garden 4/5
6:00 pm	9:30 pm	Banquet – need a ticket	Phipps Garden
Friday, June 3			
Start Time	End Time	Session	Location
7:30 am	12:00 pm	Registration	
8:00 am	9:50 am	Session 7A – Lithographic Materials	Kings Garden 3
		Session 7B – Emerging Fabrication Techniques 1	Kings Garden 4
		Session 7C - Focused Beam Induced Processing	Kings Garden 5
9:50 am	10:10 am	Break	
10:10 am	11:50 am	Session 8A – Nanoimprint Lithography 2	Kings Garden 3
		Session 8B – Emerging Fabrication and Characterization Techniques 2	Kings Garden 4
		Session 8C – Nanophotonics 2	Kings Garden 5
12:20 pm	1:20 pm	Lunch on your own	
1:20 pm	3:10 pm	Session 9A – Focused Ion Beam Lithography	Kings Garden 3
		Session 9B – Nanofabrication and Biology 2	Kings Garden 4
		Session 9C – Nanoelectronics 2	Kings Garden 5
3:10 pm	3:30 pm	Break	
3:30 pm	5:20 pm	Session 10A – Advanced Etching Techniques 2	Kings Garden 3
		Session 10B - Micro- and Nanofluidics	Kings Garden 4
		Session 10C – Electron Beam Lithography 2	Kings Garden 5