



**The 61<sup>st</sup> International Conference on  
Electron, Ion, and Photon Beam  
Technology, and Nanofabrication**

**May 30 – June 2, 2017**

**[www.eipbn.org](http://www.eipbn.org)**

**Walt Disney World  
Disney's Coronado Springs Resort  
Lake Buena Vista, Florida**



The EIPBN Steering Committee and I would like to invite you to attend the upcoming 61<sup>st</sup> Annual International Conference on Electron, Ion, and Photon Beam Technology, and Nanofabrication. This exciting annual conference brings together experts from academia and industry to explore the cutting edge science and engineering associated with micro- and nanomanufacturing and all of its myriad of applications. The guide below gives some additional information on the conference, its background, the technical areas covered, and a tentative conference schedule. Additional information will be continuously updated on the conference website over the coming months until the conference.

In addition to the traditional conference technical sessions, there are a number of other conference activities including: short courses available to help those new to the field get up to speed and trained, numerous commercial user group meetings, a conference banquet dinner featuring a nationally known science and engineering comedian, and a commercial session that includes equipment and materials vendors ready to discuss how they can help you achieve your technical goals.

This year's conference is in a particularly exciting location, the Walt Disney World Coronado Springs Resort in sunny Orlando, FL. So we hope you come join us for some stimulating technical discussions but also tack on some time to go enjoy the resort amenities and the many wonderful things to do in the Walt Disney World resort area. There is something for everyone, both young and old. Activities available include world class dining and shopping, championship caliber golf, relaxing spas, pools of all shapes and sizes, theme parks loved by all, and many others too numerous to list. So we encourage you to bring your families as well and make both some technical and family memories that will last a lifetime. We look forward to seeing you at the conference.



Cliff Henderson  
2017 EIPBN Conference Chair

## Conference Organizers

### Conference Chair

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### Program Chair

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## Conference Background

The EIPBN Conference is dedicated to lithographic patterning science, micro- and nano-manufacturing process technology, and the applications these methods enable. For 60 years, and 61 meetings the conference has brought together engineers and scientists from industries and universities from all over the world to report on and discuss recent progress and future trends.

## Meeting Format

The conference will open on Tuesday with short courses and a special commercial session featuring equipment and materials vendors that are relevant to the conference. Wednesday will open with plenary sessions featuring invited speakers from a variety of fields related to the conference and then the conference will transition to a parallel session format. Speakers will be allotted 30 minutes for invited papers and 20 minutes for contributed papers.

A poster session that includes invited and contributed papers will be displayed for informal viewing throughout the conference. A series of "Best Poster Awards" will be judged and awarded. A special "Start-up Showcase" session will allow start-up companies to display in a poster or short oral talk their activities. A "Best EIPBN 2017 Start-up Award" will be judged and awarded.

Abstracts representing high quality original research are invited in the topics of patterning and fabrication. Example topic areas include:

- Nanoimprint lithography
- Directed Self-Assembly (DSA)
- Biologically-Inspired Assembly
- Atomic Layer Processes
- Electron- and Ion-Beam Lithography
- Advanced and EUV optical lithography
- Dimensional Metrology & Alignment
- Imaging Methods
- Scanning-Probe-Based Patterning
- Resists and Resist Processing
- Maskless Lithography
- Soft Lithography and Embossing
- 3D Micro- and Nano-Patterning
- Nanoscale Processing Techniques
- Charged Beam Induced Processes
- 3D and 4D Printing

Topics related to fabrication and patterning for emerging technologies include:

- Modeling of micro- & nanofabrication
- Integrated nano-photonics
- Nanostructures for Quantum Computing
- Nano-electronics
- Nanostructures for Biology and Nanomedicine
- MEMS, NEMS, and micro- and nano-fluidics
- Nanofabrication for energy sources

## Conference Registration

We strongly encourage you to register on-line by using our website [www.eipbn.org](http://www.eipbn.org). Early registration and special student rates are available. The early registration deadline is April 30, 2017.

## Conference Location



The conference will be held at Disney's Coronado Springs Resort at the Walt Disney World Resort in Lake Buena Vista, FL. Come relive the romance of Spanish Colonial Mexico at this enchanting resort which includes brightly colored casitas and rustic ranchos hotel rooms. At the resort, amenities include a number of on-site restaurants, health club, salon, arcade, marina, and multiple pools including a Mayan pyramid themed resort pool complex. There is plenty to do in your free time at the resort while attending the conference. In addition, the resort is located inside the larger Walt Disney World Resort, so you also have access to all of the resort's theme parks, restaurants, shopping, clubs, golf, and other amenities. Free transportation from the airport to the resort and inside the Walt Disney World Resort complex is included free of charge for guests staying on the property.

On-line hotel registration is available via a link on the EIPBN website. Attendees are encouraged to register for hotel accommodations as soon as they become available due to the popularity of this incredible Florida resort. Some additional hotel rooms are available at the conference rate for several days before and after the conference ends and will be made available on a first come first served basis.

## Specialty Tours and Events

Several optional tours and special events will be setup on days during and after the conference for those that would like to participate. Check back on the website for updates or make sure you are on the EIPBN mailing list for conference schedule and event updates.

## Conference Schedule

### Tuesday – May 30, 2017

|                   |  |
|-------------------|--|
| 8:00 AM – 3:00 PM | Short Courses                              |
| 3:00 PM – 6:00 PM | Commercial Exhibition Session              |
| 6:30 PM – 9:00 PM | Welcome Reception – Coronado Springs Beach |

### Wednesday – May 31, 2017

|                     |  |
|---------------------|--|
| 8:00 AM – 10:15 AM  | Conference Kick-Off and Plenary Session              |
| 10:15 AM – 10:30 AM | Break (exhibits open)                                |
| 10:30 AM – 12:00 PM | Poster Session – Session 1 & Best Poster Competition |
| 12:00 PM – 1:15 PM  | Women in Nanofabrication Lunch or Lunch on your own  |
| 1:15 PM – 3:15PM    | Parallel Oral Presentation Sessions #1               |
| 3:15 PM – 3:30 PM   | Break (exhibits open)                                |
| 3:30 PM – 5:30 PM   | Parallel Oral Presentation Sessions #2               |
| 5:30 PM – 5:45 PM   | Break  |
| 5:45 PM – 7:00 PM   | Poster Session – Session 2                           |

### Thursday – June 1, 2017

|                     |   |
|---------------------|---|
| 8:00 AM – 10:00 AM  | Parallel Oral Presentation Sessions #3        |
| 10:00 AM – 10:15 AM | Break (exhibits open)                         |
| 10:15 AM – 12:15 PM | Parallel Oral Presentation Sessions #4        |
| 12:15 PM – 1:30 PM  | Lunch on your own and explore (exhibits open) |
| 1:30 PM – 3:30PM    | Parallel Oral Presentation Sessions #5        |
| 3:30 PM – 3:45 PM   | Break   |
| 3:45 PM – 5:30 PM   | Parallel Oral Presentation Sessions #6        |
| 5:30 PM – 6:00 PM   | Break   |
| 6:00 PM - 9:00 PM   | EIPBN Conference Banquet                      |

### Friday – June 2, 2017

|                     |   |
|---------------------|---|
| 8:00 AM – 10:00 AM  | Parallel Oral Presentation Sessions #7  |
| 10:00 AM – 10:15 AM | Break                                   |
| 10:15 AM – 12:15 PM | Parallel Oral Presentation Sessions #8  |
| 12:15 PM – 1:30 PM  | Lunch on your own and explore           |
| 1:30 PM – 3:30PM    | Parallel Oral Presentation Sessions #9  |
| 3:30 PM – 3:45 PM   | Break                                   |
| 3:45 PM – 5:30 PM   | Parallel Oral Presentation Sessions #10 |

## Abstract Submission

**Abstracts should be submitted online at**

[www.eipbn.org](http://www.eipbn.org)

Abstracts are limited to one page of text (12 point or larger type) and a second, optional page with up to four figures.

**Abstract deadline: January 23, 2017**

Late submissions may be considered but only if they report truly outstanding results. Please prepare abstracts carefully and describe accomplishments specifically. Authors will be notified of acceptance by April 11, 2017.

## Micrograph Contest

On a more fun, yet scientific level, EIPBN offers the opportunity to immortalize your favorite micrograph(s). So plan to save and enter your favorite optical, electron, and scanning probe micrographs into the contest. Categories and previous winners are described on our website.

## Manuscript Submission

Manuscripts must be submitted around the time of the conference and will be subjected to a critical peer review before they can be accepted for publication in the Nov/Dec 2017 issue of the Journal of Vacuum Science and Technology. Please note that authors who are not members of the American Vacuum Society may be required to pay a per page publication charge.

## Student Support

Limited funds are available to support student travel. The Conference Chair must receive a letter requesting support from the student's advisor by May 1, 2016. For helping with housing costs a "Room with another student" option may be available via the website.