

## SUBMISSION OF ABSTRACTS

To be considered, Abstracts may be submitted for inclusion in the Seminar at any time up to January 18, 2018. Receipt of your Abstract will be acknowledged by email or airmail. Guidelines on how to prepare the manuscript for publication will be available on the IPSUSA Seminar website. Selection of the papers to be given at the Seminar will be made in February 2018, and a list of papers for oral and poster presentation will also be published and posted on the website in March 2018. The proceedings of the Seminar will be published in hard copy and as a CD. The CD will be distributed at the Seminar and a hard copy will be available for purchase at that time.

It is expected that an author will present each oral or poster paper. **It is our intent not to publish manuscripts of papers from authors who do not participate in the Seminar.** This standard is set to encourage attendance and participation in the Seminar and to encourage the open exchange of ideas. All papers will be presented and written in the English language. Furthermore, all submitted manuscripts must allow IPSUSA Seminars, Inc. to copyright their submissions in accordance with standard practice for the publication of all technical and scientific publications.

Authors are personally and solely responsible for obtaining organizational clearance for their paper (abstract and manuscript) before submitting it to the Seminar for presentation and publication. In granting the clearance approval, it should be understood that the abstract and manuscript will be published in the Seminar Proceedings in hard copy and on CD. These will be made available to the public at large.

## PASSPORT and VISA ADVISORY and WARNING

**In the process of obtaining your Visa for travel to the USA, you may be asked to appear for a personal interview. This will lengthen the time it takes to obtain a Visa.**

**We strongly recommend starting the Visa application process very early.**

## 2018 – DR. BERNARD E. DOUDA IPS – YOUNG SCIENTIST AWARD

One special award, the **2018 – Dr. Bernard E. Douda IPS – Young Scientist Award** for Pyrotechnics Investigators is anticipated from the fund established through the International Pyrotechnics Society. The award will pay for the 43<sup>rd</sup> IPS Seminar and 15<sup>th</sup> Workshop on Pyrotechnics Combustion Registration fees and a 2-year paid IPS membership. To be eligible for the award, the Applicant must be under 40 years of age at the time of the submission deadline (January 18, 2018), must not be an officer or past officer of the IPS or IPSUSA, must submit a full paper with cover letter explaining the importance of the presented work along with a curriculum vitae, and must attend and present the paper at the 43<sup>rd</sup> IPS Seminar. Applicants will be notified by February 15, 2018. The point of contact for this award is Dr. Trevor Griffiths at [ttgriffiths.ips@gmail.com](mailto:ttgriffiths.ips@gmail.com).

## ADJOINING WORKSHOP

The 15<sup>th</sup> Workshop on Pyrotechnic Combustion Mechanisms will meet at the same hotel (on Saturday, July 14<sup>th</sup>) just after the 43<sup>rd</sup> IPS Seminar. There will be a separate registration and fee for the Workshop.

The goal and primary focus of this Workshop is to provide a platform for scientists to exchange information and discuss critical physical and chemical aspects of the combustion of pyrotechnic materials. Whereas our present knowledge on the combustion of most solid propellants may be considered mature, our understanding of the combustion processes occurring with pyrotechnics is still in its infancy. Thus, development of pyrotechnics for various applications, be it illuminating and decoy flares, igniter materials, smoke charges and the like, still requires time-consuming procedures resembling more of a trial and error system rather than a straight-forward/deductive approach.

For further information on the Workshop, see the IPS or IPSUSA Seminars websites or contact Dr. Ernst-Christian Koch at [e-c.koch@lutrady.com](mailto:e-c.koch@lutrady.com).

## SEMINAR STEERING COMMITTEE IPSUSA Seminars, Inc. Officers

**Dr. Gregory D. Knowlton** – President  
**Dr. Jesse J. Sabatini** – Vice President,  
Seminar Operations & Protocol  
**Dr. Anthony P. Shaw** – Vice President,  
Seminar Records  
**Mr. David W. Turner** – Secretary/Treasurer  
**Mrs. Linda C. Crouse** – Recording Secretary  
**Dr. Bernard E. Douda** – President, Emeritus  
**Mr. James L. Austing** – Secretary, Emeritus

## SEMINAR CO-CHAIRS

**Dr. David F. Dye** of NSWC Crane Division,  
[david.f.dye@navy.mil](mailto:david.f.dye@navy.mil)  
**Dr. Jared D. Moretti** of U.S. Army RDECOM-  
ARDEC, [jared.d.moretti.civ@mail.mil](mailto:jared.d.moretti.civ@mail.mil)

## FURTHER INFORMATION

As information about the Seminar becomes available, it will be posted on the website at <http://www.ipsusa-seminars.org>.

Copies of proceedings from previous Seminars held in the US are available in book and CD form for sale at <http://www.ipsusa-seminars.org/publications/>.

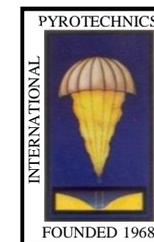
## REGISTRATION

Registration and Abstracts will be handled through the Seminar Coordinator:

### Linda Crouse

IPSUSA 2018 Seminar Coordinator  
P.O. Box 621633  
Littleton, Colorado 80162-1633 USA  
Phone: 303.601.8550  
Fax: 303.904.3965  
E-mail: [LcrouseIPSUSASeminars@gmail.com](mailto:LcrouseIPSUSASeminars@gmail.com)

Questions about details for registration and other arrangements may be directed to her.



**FIRST CALL  
for PAPERS  
(ABSTRACTS)**



## 43<sup>rd</sup> INTERNATIONAL PYROTECHNICS SOCIETY SEMINAR

*Hosted by*  
**IPSUSA Seminars, Inc.**

**A Major International  
Forum for Pyrotechnics and  
Energetic Materials!**

July 8-13, 2018

The 43<sup>rd</sup> International Pyrotechnics Society Seminar will be held at the *Fort Collins Marriott Hotel* in Fort Collins, Colorado, USA, on July 8-13, 2018.



<http://www.marriott.com/hotels/travel/ftcco-fort-collins-marriott>



## FORT COLLINS, COLORADO

Fort Collins is the fourth largest city in the State of Colorado. At 5,003 ft. above sea level and an average of 300 sun-filled days per year, low humidity, and moderate winters, Fort Collins enjoys a mild climate year-round. Set against the foothills of the Rocky Mountains, 65 miles north of Denver and 45 miles south of Cheyenne, Wyoming, Fort Collins is a vibrant and active community. Surrounded by the sights and sounds of the Rocky Mountains, Fort Collins ensures you're in for endless adventures. Savor the great outdoors while enjoying white water rafting, hiking, canoeing, fishing, and snow sports. Fort Collins is also the home of Colorado State University.

## FORT COLLINS MARRIOTT

The Fort Collins Marriott Hotel (<http://www.marriott.com/hotels/travel/ftcco-fort-collins-marriott>) is located at 350 East Horsetooth Road, Fort Collins, Colorado. Retreat to their sophisticated guest rooms and suites offering luxurious bedding, ergonomic workspaces, and mouthwatering room service. Fresh from a six-million-dollar renovation, the hotel boasts casual, contemporary décor that culminates in a unique outdoor pavilion with flexible open-air options for hosting events year-round.

For dining, enjoy regional specialties in their stunning restaurant, featuring innovative dishes paired with their impressive selection of local beers to complete the fun and authentic Rocky Mountain experience. Stay active without stepping off site with their state-of-the-art fitness center, or make a splash any time of the year in one of their sparkling outdoor and indoor pools.

The new Foothills Mall Shopping Center is within walking distance of the Marriott Hotel. Here you will find a variety of restaurants, shopping, and a Cinemark Movie Bistro. Check out their website at <http://shopfoothills.com/>.

## HOTEL RESERVATIONS

To make Reservations, you may either call the Hotel's direct number at 1-970-226-5200 and ask for Reservations, or go online to [www.Marriott.com/FTCCO](http://www.Marriott.com/FTCCO) to receive the special Seminar rates. Make sure you reference "IPSUSA". **NOTE:** As soon as we get the direct IPSUSA Reservation links, they will be posted on the IPSUSA website and emailed to you.

There will be a limited number of Per Diem rooms (for U.S. Government Employees only – with a valid Government ID), so it is advised that you register early if you qualify for these. Regular room rates will be \$144 per night. Paid Registration also includes free internet access in your room. Once you make your reservation, you will receive a confirmation number from the hotel.



## SEMINAR REGISTRATION

See attached Registration Form for Registration fees. Note discounts for early registration and for IPS members. Early registrants using credit cards (VISA, MasterCard, and AMEX only) will not be charged until the Seminar. Also, please specify Seminar activities for companions and note participation in all events for both registrants and companions on the Registration Form. Please complete all sections of the form.

## Activities for Registrants & Companions included in the Registration fee:

The informal reception Sunday evening with ample food, a casual get-together mixer/picnic Monday night, and the traditional Wine and Cheese Social at closing Friday, are all included in the Registration fee.

## SCHEDULE OF EVENTS

The timetable leading to the Seminar is:

### Mid-July, 2017

First Call for Papers (Abstracts) with Registration Information  
Registration for the Seminar begins

### October 2017

Second Call for Papers with Reminder for Abstracts  
Registration for the Seminar continues

### January 18, 2018

Abstracts due to Seminar Coordinator (see address on back page)  
Final full text manuscript is due for the Young Scientist Award consideration  
Registration for the Seminar continues

### February 15, 2018

Authors notified of paper acceptance  
Young Scientist Award Notification  
Registration for the Seminar continues

### March 15, 2018

Final Announcement with list of papers  
Registration for the Seminar continues

### April 28, 2018

Manuscripts due to Seminar Coordinator for Proceedings  
Registration for the Seminar continues

### June 8, 2018

Final date for receiving discounted registration\*\*  
Cutoff date for Hotel reservations

### July 8-13, 2018

**43<sup>rd</sup> International Pyrotechnics Society Seminar**

**\*\* We strongly encourage completing the Seminar Registration form and making your Hotel reservation early.**

**Payment is not required prior to arrival at the Seminar.**

**Registration forms received by June 8, 2018, will be accepted at the lower advance registration fee for payment at the Seminar.**

**"Walk-in" registrants will pay a higher fee.**

**Your Credit card will not be billed until the date of the Seminar.**

## SEMINAR TOPICS

Pyrotechnics, in the international context, includes all energetic materials. Subjects of interest for this Seminar include explosives, propellants, pyrotechnics, and devices that utilize these materials, processes used to make them, and the physical and chemical principles and processes involved in their design, characterization, reaction, testing, operation, and aging.

- ◆ All aspects of Pyrotechnics
- ◆ Fuel/oxidizer formulations
- ◆ Insensitive energetic materials
- ◆ Sensitivity and safety
- ◆ Solid rocket propellants
- ◆ Environmental considerations
- ◆ Nano-particles in energetic materials
- ◆ Testing methods and devices
- ◆ Manufacturing processes; twin-screw extruders, coacervation, co-precipitation, etc.
- ◆ Computational methods applied to energetics
- ◆ Detonation science
- ◆ Improvised explosive devices (IEDs)
- ◆ Initiators and Initiation
- ◆ Regulations and standards applicable to energetics; STANAGs, etc.
- ◆ Synthesis of explosive, propellant, and pyrotechnic compositions
- ◆ Unusual applications of energetic materials
- ◆ Conventional/non-conventional explosives
- ◆ Commercial fireworks (R&D, processing, safety, materials, etc.)
- ◆ Commercial explosives and pyrotechnics for blasting, excavation, drilling, and mining

## ABSTRACTS

Abstracts should be no more than 500 words in length. You may indicate your preference for presentation in oral or poster session. Full manuscripts from both types of presentations without distinction will be included in the proceedings.

Commercial vendors must register and are encouraged to present posters or display exhibits.