

P2SAC* SPRING 2024 CONFERENCE

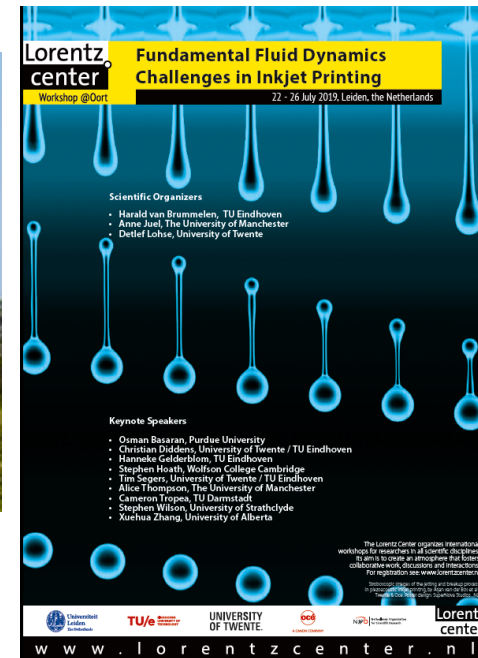
May 6-8, 2024



Safety
(npr.org)



Safety and assurance
(agdaily.com)



Lorentz center Workshop @Dort
Fundamental Fluid Dynamics Challenges in Inkjet Printing
22 - 26 July 2019, Leiden, the Netherlands

Scientific Organizers

- Harald van Brummelen, TU Eindhoven
- Anne Juel, The University of Manchester
- Detlef Lohse, University of Twente

Keynote Speakers

- Osman Basaran, Purdue University
- Christian Diddens, University of Twente / TU Eindhoven
- Hanneke Geldenblom, TU Eindhoven
- Stephen Hoath, Wolfson College Cambridge
- Tim Segers, University of Twente / TU Eindhoven
- Alice Thompson, The University of Manchester
- Cameron Tropea, TU Darmstadt
- Stephen Wilson, University of Strathclyde
- Xuehua Zhang, University of Alberta

The Lorentz Center organizes international workshops for researchers in all scientific disciplines. It aims to create an atmosphere that fosters collaborative work, discussing past, present and future challenges. For registration see www.lorentzcenter.nl

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Flow assurance

*Purdue Process Safety and Assurance Center
<https://engineering.purdue.edu/P2SAC>

P2SAC SPRING 2024 CONFERENCE

May 6-8, 2024

Monday, May 6: *One-hour tutorials and select presentations on process safety and assurance*

Tutorials from Kenexis,
Toellner Consulting, Purdue,
...

Tuesday, May 7: *Mini-conference on process safety and assurance*

Wednesday, May 8: *Mini-conference on safety in the pharmaceutical industry*

(a) Location/venue: the conference and lunches will take place in Stewart Center (STEW 218) and the conference banquet will be held in the PMU East and West Faculty Lounges on the Purdue campus in West Lafayette, IN.

(b) Conference hotels/lodging: conference attendees can choose from a number of hotels including *the Purdue Union Club Hotel (a Marriott Autograph Collection Hotel), which is located next door to STEW and where a block of rooms has been set aside for the attendees*, as well as many others that are available nearby in West Lafayette and also in Lafayette.

(c) Conference registration: <https://cvent.me/OARxgq?locale=en-US>

(d) Organizers: Prof. Osman Basaran (obasaran@purdue.edu), Academic Director, and Prof. Ray Mentzer (rmentzer@purdue.edu), Executive Director

(e) Additional contact(s): Amanda Shields (alschrei@purdue.edu)

Monday, May 6: Tutorials and select Purdue presentations on process safety and assurance

9:00-9:30 **Registration; Coffee/Tea and Pastries**

9:30-10:00 Prof. Osman Basaran (Purdue): Welcome

Tutorials:

10:00-11:00 Edward Marszal (Kenexis): AI Introduction for Non-Practitioners and Applications in PHA

11:00-12:00 Prof. Behzad Esmaeili (Industrial Engineering, Purdue): Measuring Workers' Real-Time Situation Awareness Using Wearable Technologies

12:00-1:15 **Lunch served in conference room**

1:15-2:15 Jack Toellner and Joseph Drago (Toellner Consulting and Marathon Consulting Group): Identifying and Evaluating Lessons Learned to Improve Performance

Select presentations on process safety and assurance:

2:15-2:45 Ajay Kumar, Hansol Wee, and Prof. Osman Basaran (Purdue): Sheet Rupture and Spray Formation

2:45-3:15 Prof. Can Li (Purdue): Interpretable Anomaly Detection in Chemical Processes Using Large Language Models

3:15-3:30 **Short Break**

3:30-4:00 Andrew Norfleet and Sopuru Ezenwa (Purdue): Final Phase of RHEACT Development at Purdue

6:00 **Informal group dinner (attendance restricted to those who have prepaid for the dinner during conference registration)**

Tuesday, May 7: Mini-conference on safety and assurance

7:45-8:15	Registration; Coffee/Tea and Pastries
8:15-8:45	Prof. Osman Basaran (Purdue): Kick-off, what is P2SAC, and PhD research program
8:45-9:15	Prof. Ray Mentzer (Purdue): Kick-off and overview of P2SAC activities during the past year
9:15-9:45	Prof. Can Li (Purdue): Interpreting Machine Learning and Optimization Models Using Generative AI
9:45-10:15	John Herber (Process Hazard Management Services): The Elusive Nature of Competency
10:15-10:30	Short break
10:30-11:00	Andrea Schmidt (SparkCognition Solutions): How is AI changing the safety landscape from reactive to preventive/proactive?
11:00-11:30	Prof. Brian Tackett (Purdue): The opportunity for electrochemistry to reduce reactivity hazards
11:30-12:00	Tekin Kunt (PSRG): RealWear - Hands-Free Wearables for Process Safety
12:00-1:15	Lunch served in conference room
1:15-1:45	Timoth Hoff (ExxonMobil): API 753 Awareness for Projects
1:45-2:15	Greg Nesmith (Dow): New technologies need hazard analysis
2:15-2:45	James Burelbach (Fauske): Adiabatic calorimetry techniques for reactive chemical hazards assessment
2:45-3:15	Laurence Pearlman (SAFETY and Consulting Associates, Inc.): Applying “Life Saving Rules” to process safety – how to drive process safety knowledge, understanding and compliance across an organization
3:15-3:30	Short break
3:30-4:00	David Moore (AcuTech): Challenges in Conducting Safer Technologies and Alternatives Analysis (STAA) studies for the Revised EPA RMP Rule
4:00-4:30	Prof. Vilas Pol (Purdue): Towards Making Li-ion Batteries Inherently Safer and Operable at Extreme Temperatures
4:30-5:00	Bruce Vaughen (CCPS) and Ken Bloch (Consultant): It happened 40 years ago: Why do we keep revisiting Bhopal?
5:00-5:30	Open discussion on industry needs and safety challenges in industry
6:00	Conference Reception and Banquet (PMU East and West Faculty Lounges; included in conference registration)

Wednesday, May 8: Mini-conference on pharmaceutical safety

7:45-8:00	Registration; Coffee/Tea and Pastries
8:00-8:15	Profs. Osman Basaran and Ray Mentzer (Purdue): Welcome
8:15-8:45	Joe Bradley (Scitegrity Limited): Assessing the explosive, energetic & self-reactive properties of chemicals and reactions – working towards a simple, high throughput, 'non expert' tool
8:45-9:15	Prof. Brett Savoie (Purdue): New Computational Tools for Predicting Reactivity
9:15-10:15	Prof. R. Graham Cooks, Christina R. Ferreira, and Nicolás M. Morato (Purdue): High Throughput Mass Spectrometry for Synthesis, Bioassays and Drug Discovery [PLENARY LECTURE]
10:15-10:30	Short break
10:30-11:00	Yamini Krishnan (Corteva): Unexpectedly High Corrosion of Chlorinating Agents with Acetonitrile: Importance of Corrosion Testing for Safe Scale-Up
11:00-11:30	Eric Margelefsky (Merck): An Updated Look at the Yoshida Correlation for Predicting Impact-Sensitivity
11:30-12:00	Shawn LaCasse and Lacey Samp (Pfizer): TBD
12:00-1:15	Lunch served in conference room
1:15-1:45	Robert Woodman (Johnson Matthey): Combustible powder product safety data
1:45-2:15	Jeff Sterbenz (GSK): Gas Evolution Analysis: Unexpected Detection & Profile
2:15-2:45	Han Xia (Lilly): A process safety study of D-M-S-O at 20,000 gallon scale
2:45-3:15	Jeff Sperry (Vertex): Bestmann-Ohira reagent case study: Ensuring storage and transportation safety for diazo containing materials
3:15-3:30	Short break
3:30-4:00	Prof. Rex Relaitis (Purdue): Update on Young Institute for Adv Manufacturing of Pharmaceuticals
4:00-4:30	Sai Swetha Sathanapally (Gilead): Thermal hazard evaluation for flow processes
4:30-5:00	Open discussion on industry needs and safety challenges in the pharma industry
5:00	Conference wrap-up and conclusion
6:00	Informal group dinner (attendance restricted to those who have prepaid for the dinner during conference registration)