

WCCE11 - 11th WORLD CONGRESS OF CHEMICAL ENGINEERING

IACCHE - XXX INTERAMERICAN CONGRESS OF CHEMICAL ENGINEERING CAIQ2023 - XI ARGENTINIAN CONGRESS OF CHEMICAL ENGINEERING CIBIQ2023 - II IBEROAMERICAN CONGRESS OF CHEMICAL ENGINEERING Buenos Aires - Argentina - June 4-8, 2023

### "The global chemical engineering working for a better future world"

# Special Event: Process Systems Engineering Plenary and Keynote lectures

## Monday, June 5, 2023 - 11:00 to 12:30 (Plenary and Keynote)

UCA Aula Magna

11:00-11:30 Marianthi Ierapetritou: Process Systems Engineering Approaches Towards Sustainable Solutions: Path to Circular Economy (Keynote)

#### 11:30 - 12:30 Plenary Lecture



**Arturo Jimenez Gutierrez:** 

Including inherent safety and process intensification as part of the design of chemical processes

### Monday, June 5, 2023-14:00 to 15:30 (Keynote)

### UCA Aula Magna

14:00-14:30 Maria Soledad Diaz: PSE challenges to address water management in integrated aquatic and agricultural livestock systems to achieve sustainability goals within a circular economy framework.

14:30-15:00 Miguel Bagajewicz: Set Trimming, Smart and Supersmart Enumeration for the Globally Optimal Design of Chemical Process Equipment.

15:00-15:30 Venkat Venkatasubramanian: Exploiting Physicochemical Knowledge in Machine Learning: Combining Symbolic-AI with Numeric-AI.



# Tuesday, June 6, 2023 - 11:00 to 12:30 (Plenary and Keynote)

### UCA Aula Magna

11:00-11:30 Christos Maravelias: Process Synthesis Redefined: How Studying Renewable Energy Systems Led to New Classes of Problems (Keynote)

### 11:30 - 12:30 Plenary Lecture



**Andre Bardow** 

### Betting on Molecules: PSE Tools to Capture the Jackpot at the Climate Casino

Tuesday June 6, 2023 - 14:00 to 15:30 (Keynote)

UCA Aula Magna

14:00-14:30 Hirokazu Sugiyama: Bridging PSE and pharma: Challenges and opportunities for modeling, simulation, and optimization

14:30-15:00 Ana Carvalho: Environmental and social Life Cycle Assessment: A powerful tool for Process Systems Engineering

15:00-15:30 Benham Khadim and Sander Dubbelman: The use of Hansen Solubility Parameters in Cosmetic Formulations: first experience in Henkel and the way forward



# Wednesday, June 7, 2023 - 11:00 to 12:30 (Plenary and Keynote)

UCA Aula Magna

11:00-11:30 Argimiro Secchi: Optimization and Control of Variants of Simulated Moving Bed (Keynote)

#### 11:30 - 12:30 Plenary Lecture



E. N. (Stratos) Pistikopoulos

Multi-Scale Energy Systems Engineering - Methodologies & Tools (Plenary)

Wednesday, June 7, 2023 - 14:00 to 15:30 (Keynote)

UCA Aula Magna

14:00-14:30 Amornchai Arpornwichanop: Process Systems Engineering in Developing Sustainable Biorefinery

14:30-15:00 Jose Pinto: Enterprise-wide optimization of industrial gas value chains in the face of disruptions.

15:00-15:30 Seyed Soheil Mansouri: A unified multi-scale strategy for bio-manufacturing process development.