



Centre for Process Systems Engineering 25th Anniversary

Imperial College
London

Professor Stratos Pistikopoulos FEng
Centre for Process Systems Engineering
Imperial College London

The Twenty first
Professor Roger
W.H. Sargent
Lecture



Multi-Parametric Programming & Control 25 years later: what is next?

In the Chair: Professor Nilay Shah, Director, Centre for Process Systems Engineering, Imperial College London

Vote of Thanks: Professor Berc Rustem, Centre for Process Systems Engineering, Imperial College London

The Professor Roger Sargent Lecture is an annual event the Centre for Process Systems Engineering inaugurated as a tribute to Professor Sargent's vision, leadership, significant technical contributions and to his legacy in the field of Process Systems Engineering.

Abstract: The developments of multi-parametric programming and control coincide with the quarter of a century presence and growth of the Centre for Process Systems Engineering, the 'brainchild' of Professor Roger Sargent's vision. At this milestone anniversary, the lecture will first follow the parallel historical evolutions of multi-parametric programming and explicit/multi-parametric model predictive control within the field of process systems engineering – in particular, how advances in optimization and decision making under uncertainty, the interactions of design and control and the quest for process operability have led to a powerful new paradigm. We will then provide a perspective for the future, outlining the foundations and features of a multi-scale, systems-based platform for the grand unification of design, control and operations under uncertainty which opens unprecedented new opportunities for novel applications in smart manufacturing, sustainable energy systems and personalized healthcare engineering.

Biography: Stratos Pistikopoulos is a Professor of chemical engineering at Imperial College London, where he was a Director of its Centre for Process Systems Engineering between 2002 and 2009. He holds a PhD from Carnegie Mellon University and was with Shell Chemicals in Amsterdam before joining Imperial in 1991. He has authored/co-authored over 350 major research publications in the areas of modelling, control and optimization of process, energy and systems engineering applications, 10 books and 2 patents. A Fellow of the Institution of Chemical Engineers, Editor of Computers & Chemical Engineering, Co-Editor of the Book Series in Computer Aided Chemical Engineering (Elsevier) and Process Systems Engineering (Wiley-VCH), on the Editorial Boards of Industrial & Engineering Chemistry Research (2011-2013), the Journal of Global Optimization and the Journal of Computational Management Science, Professor Pistikopoulos has been a co-founder/non-executive director of Process Systems Enterprise (PSE) Ltd and a founder/director of Parametric Optimization Solutions (ParOS) Ltd. In 2007, Prof. Pistikopoulos was a co-recipient of the prestigious MacRobert Award from the Royal Academy of Engineering; in 2008, he received an Advanced Investigator Award from the European Research Council; in 2009, he delivered the Bayer Lecture in Process Systems Engineering at Carnegie Mellon University, USA, and in 2014, he was the recipient of the title of Doctor Honoris Causa, the highest honorary distinction of the University Politehnica of Bucharest. In 2012, he was the recipient of the Computing in Chemical Engineering Award of the Computing and Systems Technology (CAST) Division of the American Institute of Chemical Engineers (AIChE) - only the second person ever to receive it from the UK (after Professor Roger Sargent himself in 1990). In 2013, he was elected Fellow of the Royal Academy of Engineering.



Stratos Pistikopoulos FEng

Thursday 4 December 2014 • 17:30

Lecture Theatre 1 (Room 250), Department of Chemical Engineering, ACE Extension Building,
South Kensington Campus, Imperial College London SW7 2AZ

Tea and coffee will be served before the lecture from 16:30 in the Common Room (Room 228), Department of Chemical Engineering, Level 2, ACE Extension Building

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