

FOCAPO / CPC 2017

Invited Presentations

VERTICAL INTEGRATION OF PRODUCTION SCHEDULING AND PROCESS CONTROL: PROGRESS, OPPORTUNITIES AND CHALLENGES

Lisia Dias, Richard Pattison, Michael Baldea and **Marianthi Ierapetritou**

(Paper ID IJ30)

INTEGRATING MIXED-INTEGER OPTIMISATION AND SATISFIABILITY MODULO

THEORIES: APPLICATION TO SCHEDULING

Miten Mistry and **Ruth Misener**

(Paper ID IF36)

REDESIGNING DECISION-MAKING ARCHITECTURES TO EXPLOIT MULTI-SCALE ELECTRICITY MARKETS

Victor M. Zavala and Alexander W. Dowling

(Paper ID IF38)

OPTIMIZATION OF A HYDRAULIC FRACTURING PROCESS TO ENHANCE THE PRODUCTIVITY OF A FRACTURED WELL IN ULTRA-LOW PERMEABILITY ENVIRONMENT

Prashanth Siddhamshetty, Seeyub Yang and **Joseph Kwon**

(Paper ID IC61)

PERSPECTIVES ON STOCHASTIC PREDICTIVE CONTROL WITH AUTONOMOUS MODEL MAINTENANCE FOR MODEL STRUCTURE UNCERTAINTY

Tor Aksel N. Heirung and **Ali Mesbah**

(Paper ID IC67)

ADVANCED OPTIMIZATION STRATEGIES FOR INTEGRATED DYNAMIC PROCESS OPERATIONS

Lorenz Biegler

(Paper ID IC78)

REALISTIC RESCHEDULING: IS IT ACHIEVABLE?

Gabriela Henning

(Paper ID IF83)

THE IMPACT OF DIGITALIZATION ON THE FUTURE OF CONTROL AND OPERATIONS

Alf Isaksson, Iiro Harjunkoski and Guido Sand

(Paper ID IC87)

DATA DISTILLATION, ANALYTICS, AND MACHINE LEARNING

S. Joe Qin and Yining Dong

(Paper ID IC101)

ADVANCES IN ROBUST OPTIMIZATION AND OPPORTUNITIES FOR PROCESS OPERATIONS

Chrysanthos E. Gounaris

(Paper ID IF110)

THE VALUE OF DISCRETE-EVENT SIMULATION IN THE COMPUTER-AIDED PROCESS OPERATIONS

Ricki Ingalls and Ron Morgan

(Paper ID IF112)

REACTION PATH ANALYSIS FOR THIN-FILM DEPOSITION PROCESSES

Raymond Adomaitis

(Paper ID IC113)

NONSMOOTH DIFFERENTIAL-ALGEBRAIC EQUATIONS

Paul Barton and Peter Stechlinski

(Paper ID IF116)

CHALLENGES AND OPPORTUNITIES IN BIOPHARMACEUTICAL MANUFACTURING CONTROL

Moo Sun Hong, Kristen Severson, Mo Jiang, Amos E. Lu, J. Christopher Love and

Richard D. Braatz

(Paper ID IC117)

IDENTIFICATION IN DYNAMIC NETWORKS

Paul M.J. Van den Hof, Arne G. Dankers and Harm H.M. Weerts

(Paper ID IC119)