Andrea Capolei - DTU Orbit (16/04/2018)
Capolei, Andrea
Center for Energy Resources Engineering - Former

Publications:

A least squares approach for efficient and reliable short-term versus long-term optimization
Christiansen, L. H., Capolei, A. & Jørgensen, J. B. 2017 In : Computational Geosciences. 21, 3, p. 411-26
Publication: Research - peer-review › Journal article – Annual report year: 2017

An algorithm for gradient-based dynamic optimization of UV flash processes
Publication: Research - peer-review › Journal article – Annual report year: 2017

A Novel Approach for Risk Minimization in Life-Cycle Oil Production Optimization
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Dynamic Optimization of UV Flash Processes
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Multiple shooting applied to robust reservoir control optimization including output constraints on coherent risk measures
Publication: Research - peer-review › Journal article – Annual report year: 2017

Offset Risk Minimization for Open-loop Optimal Control of Oil Reservoirs
Capolei, A., Christiansen, L. H. & Jørgensen, J. B. 2017 In : IFAC-PapersOnLine. 50, 1, p. 10620-10625
Publication: Research - peer-review › Journal article – Annual report year: 2017

The Adjoint Method for Gradient-based Dynamic Optimization of UV Flash Processes
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

An open-source thermodynamic software library
Publication: Research › Report – Annual report year: 2016

Time-explicit methods for joint economical and geological risk mitigation in production optimization
Publication: Research - peer-review › Journal article – Annual report year: 2016

Profit and Risk Measures in Oil Production Optimization
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

A mean–variance objective for robust production optimization in uncertain geological scenarios
Nonlinear Model Predictive Control for Oil Reservoirs Management
Publication: Research › Ph.D. thesis – Annual report year: 2014

Waterflooding optimization in uncertain geological scenarios
Publication: Research - peer-review › Journal article – Annual report year: 2013

Computational Methods for Model Predictive Control: New Opportunities for Computational Scientists
Publication: Research › Sound/Visual production (digital) – Annual report year: 2012

High Order Adjoint Derivatives using ESDIRK Methods for Oil Reservoir Production Optimization
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Oil Reservoir Production Optimization using Single Shooting and ESDIRK Methods
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Optimisation of Oil Production in Two – Phase Flow Reservoir Using Simultaneous Method and Interior Point Optimiser
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2012

Single Shooting and ESDIRK Methods for adjoint-based optimization of an oil reservoir
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Single Shooting and ESDIRK Methods for adjoint-based optimization of an oil reservoir
Publication: Research › Sound/Visual production (digital) – Annual report year: 2012

Solution of Constrained Optimal Control Problems Using Multiple Shooting and ESDIRK Methods
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Projects:

Simulation and Optimization of Oil Reservoirs in the Danish North Sea
Hersholt, S., Jørgensen, J. B., Capolei, A. & Nick, H.
01/12/2015 → 30/11/2018
Project: PhD

Nonlinear Model Predictive Control for Oil Reservoirs
Ritschel, T. K. S., Jørgensen, J. B., Capolei, A. & Poulsen, N. K.
15/08/2015 → 14/08/2018
Project: PhD