Andrea Capolei - DTU Orbit (25/02/2018)

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

Waterflooding optimization in uncertain geological scenarios

Computational Methods for Model Predictive Control: New Opportunities for Computational Scientists

High Order Adjoint Derivatives using ESDIRK Methods for Oil Reservoir Production Optimization

Oil Reservoir Production Optimization using Single Shooting and ESDIRK Methods

Optimisation of Oil Production in Two – Phase Flow Reservoir Using Simultaneous Method and Interior Point Optimiser

Single Shooting and ESDIRK Methods for adjoint-based optimization of an oil reservoir

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