David Pisinger - DTU Orbit (31/08/2019)

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Operations Research

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Research outputs:

A comparative study of time aggregation techniques in relation to power capacity expansion modeling
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

An adaptive large neighborhood search metaheuristic for the vehicle routing problem with drones
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Green Liner Shipping Network Design
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2019 › Research › peer-review

Mathematical Optimization and Algorithms for Offshore Wind Farm Design: An Overview
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

Rejoinder on: A comparative study of time aggregation techniques in relation to power capacity-expansion modeling
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

A flow-first route-next heuristic for liner shipping network design
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Decomposition algorithms for the multi-modal ridesharing routing problem
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2018 › Research › peer-review

Editorial: Operational Research – Making an Impact
Research output: Contribution to journal › Editorial – Annual report year: 2018 › Research › peer-review

Large Neighborhood Search
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2018 › Research › peer-review

Mixed Integer Linear Programming for new trends in wind farm cable routing
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review
On the Impact of Considering Power Losses in Offshore Wind Farm Cable Routing
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2018 › Research › peer-review

Optimal wind farm cable routing: Modeling branches and offshore transformer modules
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Optimization in liner shipping
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Optimizing wind farm cable routing considering power losses
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Railway capacity and expansion analysis using time discretized paths
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Scheduling EURO-k Conferences
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Simultaneous Optimization of Container Ship Sailing Speed and Container Routing with Transit Time Restrictions
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

A Branch-and-Price algorithm for railway rolling stock rescheduling
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

A dynamic programming approach for optimizing train speed profiles with speed restrictions and passage points
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Bin-packing problems with load balancing and stability constraints
Research output: Contribution to conference › Paper – Annual report year: 2017 › Research › peer-review

Competitive Liner Shipping Network Design
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

On the Impact of using Mixed Integer Programming Techniques on Real-world Offshore Wind Parks
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

Optimization in liner shipping
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Optimizing the supply chain of biomass and biogas for a single plant considering mass and energy losses
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Time constrained liner shipping network design
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Tolerance analysis for 0–1 knapsack problems
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Integrating load-balancing into multi-dimensional bin-packing problems
Research output: Non-textual form › Sound/Visual production (digital) – Annual report year: 2016 › Research
Inter-array cable routing optimization for big wind parks with obstacles
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

Optimal retirement planning with a focus on single and joint life annuities
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Optimization of the drayage problem using exact methods
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Optimizing wind farm cable routing considering power losses
Research output: Book/Report › Report – Annual report year: 2016 › Research › peer-review

The Edge Set Cost of the Vehicle Routing Problem with Time Windows
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

The liner shipping berth scheduling problem with transit times
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

The load-balanced multi-dimensional bin-packing problem
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

A combined stochastic programming and optimal control approach to personal finance and pensions
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

A Matheuristic for the Liner Shipping Network Design Problem with Transit Time Restrictions
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Bunker Purchasing in Liner Shipping
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2015 › Research › peer-review

Capacity Analysis of Freight Transport with Application to the Danish and Southern Swedish Railway
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Competitive Liner Shipping Network Design
Research output: Book/Report › Report – Annual report year: 2015 › Research

Optimal annuity portfolio under inflation risk
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Simultaneously Recovering Rolling Stock Schedules and Depot Plans Under Disruption
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review

Simultaneous Optimization of Container Ship Sailing Speed and Container Routing with Transit Time Restrictions
Research output: Book/Report › Report – Annual report year: 2015 › Research
Integrated Job Scheduling and Network Routing
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Separation and Extension of Cover Inequalities for Conic Quadratic Knapsack Constraints with Generalized Upper Bounds
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Single string planning problem arising in liner shipping industries: A heuristic approach
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Synchronized dial-a-ride transportation of disabled passengers at airports
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

The Rolling Stock and Depot Recovery Problem
Research output: Contribution to conference › Paper – Annual report year: 2013 › Research › peer-review

The Vessel Schedule Recovery Problem (VSRP) – A MIP model for handling disruptions in liner shipping
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

A Branch and Cut algorithm for the container shipping network design problem
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

A hybrid adaptive large neighborhood search heuristic for lot-sizing with setup times
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

A Path Based Model for a Green Liner Shipping Network Design
Research output: Book/Report › Report – Annual report year: 2012 › Research

Bunker Purchasing with Contracts
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2012 › Research › peer-review

Logistics in supply chains (Part 2)
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Scheduling of outbound luggage handling at airports
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

Solving Vehicle Routing with Full Container Load and Time Windows
Research output: Contribution to journal › Conference article – Annual report year: 2012 › Research › peer-review

The Multi-commodity One-to-one Pickup-and-delivery Traveling Salesman Problem with Path Duration Limits
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

The Vessel Schedule Recovery Problem: Disruption management in liner shipping
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2012 › Research › peer-review

Routing and scheduling problems
A path based model for a green liner shipping network design problem
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Fleet deployment, network design and hub location of liner shipping companies
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Liner Shipping Cargo Allocation with Repositioning of Empty Containers
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Multi-Objective and Multi-Constrained Non-Additive Shortest Path Problems
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Optimal Wafer Cutting in Shuttle Layout Problems
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Separation and extension of cover inequalities for second-order conic knapsack constraints with GUBs
Research output: Book/Report › Report – Annual report year: 2011 › Research

Solving a Vehicle Routing Problem with a non-linear load dependant cost function
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2011 › Research

The vehicle routing problem with edge set costs
Research output: Book/Report › Report – Annual report year: 2011 › Research

Train shunting at a workshop area
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

A Branch and Cut algorithm for the container shipping network design problem
Research output: Book/Report › Report – Annual report year: 2011 › Research

An integer programming model and benchmark suite for liner shipping network design
Research output: Book/Report › Report – Annual report year: 2010 › Research

Dynamic Routing of Short Transfer Baggage
Research output: Book/Report › Report – Annual report year: 2010 › Research

Heuristics for container loading of furniture
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Interactive Cost Configuration Over Decision Diagrams
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Large Neighborhood Search
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2010 › Research › peer-review

Liner shipping hub network design in a competitive environment
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Liner Shipping Hub Network Design In A Competitive Environment
Research output: Book/Report › Report – Annual report year: 2010 › Research
Logistics in Supply Chains (Part 1)
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Multi-dimensional Bin Packing Problems with Guillotine Constraints
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Optimizing - et grundlag for bæredygtig IT
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2010 › Research › peer-review

Route planning for airport personnel transporting passengers with reduced mobility
Research output: Book/Report › Report – Annual report year: 2010 › Research

Simultaneous Fleet Deployment and Network Design of Liner Shipping
Research output: Book/Report › Report – Annual report year: 2010 › Research

The Off-line Group Seat Reservation Problem
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Two- and three-index formulations of the minimum cost multicommodity k-splittable flow problem
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

ENERPLAN - Green Logistics Solutions
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research

Heuristic approaches for the two- and three-dimensional knapsack packing problem
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Multi-Objective and Multi-Constrained Non-Additive Shortest Path Problems
Research output: Book/Report › Report – Annual report year: 2009 › Research

Two- and Three-index formulations of the Minimum Cost Multicommodity k-splittable Flow Problem
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

Chvátal-Gomory Rank-1 Cuts used in a Dantzig-Wolfe Decomposition of the Vehicle Routing Problem with Time Windows
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2008 › Research › peer-review

Liner Shipping Revenue Management with Respositioning of Empty Containers
Research output: Book/Report › Report – Annual report year: 2008 › Research

Research output: Book/Report › Report – Annual report year: 2006 › Research

Projects:

Dynamic Route Planning and Decision Support in Feeder Lines
Project: PhD
Future Feeder Line Operations - Intermodal Transportation and Network Design under Uncertainty
Project: PhD

Flexible operations research methods for health care
Project: PhD

FutureGas
Project: Research

Analyse og modellering af distribuerede elsystemer med høj andel vedvarende energi
Project: PhD

Udvikling af optimeringsmodeller og løsningsmetoder til ruteplanlægning inden for trampfart
Project: PhD

Ikke-robust dekomponering og løsning af hårde korteste-vej problemer
Project: PhD

Beslutningsproblemer for energitransmissionsnetværk i et samfundsøkonomisk perspektiv
Project: PhD

Advanced mathematical modeling related to comprehensive energy system models
Project: PhD

Optimization of operations in public transportation
Project: PhD

Investment behaviour and uncertainty in energy saving
Project: PhD

Integrated optimization of wind-farm layout and cable routing
Project: PhD

Modelling use of biomass and waste in future energy systems
Project: PhD

Liner shipping network design based on local optimization
Project: PhD

Mathematical Programming Approaches for Optimal University Timetabling
Project: PhD

Optimization of container line networks with flexible demands
Project: PhD

Airport Ground Staff Scheduling
Project: PhD

Scheduling of network traffic for Grid purposes
Project: PhD
Topics in Financial Engineering
Project: PhD

Next generation of life-cycle pension products
Project: PhD

PhD Scholarship in Liner Service Network Design
Project: PhD

The dynamic vehicle routing problem
Project: PhD

Optimization of baggage handling at airports
Project: PhD

Ikke-differentiabel optimering i heltalsprogrammering
Project: PhD

Solution methods for solving routing and scheduling problems
Project: PhD

Value Chain Optimisation in Biogas Production
Project: PhD

Integretert disponering/genopretning af togdrift
Project: PhD

Operationsanalyse i jernbanedrift
Project: PhD

Competitive Liner Shipping Network Design
Project: PhD

Robust long-term production planning
Project: PhD

A study on how to solve Integrated Routing and Planning Problems
Project: PhD

SAVE-E Energy Savings: Closing the Energy Efficiency Gap
Project: Research

Optimization of value chains for biogas production in Denmark
Project: Research

Activities:

Green liner shipping with optimization
Activity: Talks and presentations › Conference presentations
Decomposition algorithms for the multi-modal ride-sharing routing problem  
Activity: Talks and presentations › Conference presentations

Disruption management in liner shipping - getting the containers delivered on time  
Activity: Talks and presentations › Conference presentations

Network Design in Liner Shipping  
Activity: Talks and presentations › Conference presentations

Prizes:

Finalist - EURO Excellence in Practice Award (EEPA 2018)  
Prize: Prizes, scholarships, distinctions