



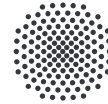
UNIVERSITÄT  
HEIDELBERG  
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SEIT 1386



Heidelberg Institute for  
Theoretical Studies



German  
DLR Aerospace Center



University of Stuttgart  
Germany

Day 1

10th of October, 2018

09:30	Registration & welcome coffee
10:15	Opening ( <i>Thomas Leibfried</i> )
10:30	Keynote ( <i>Chair: Thomas Leibfried</i> ) Modelling societal and governance drivers within an techno-economic energy systems context <i>Professor Neil Strachan, Director of the University College London UCL Energy Institute</i>
1st Session:	Planning and operation of distribution grids ( <i>Chair: Michael Suriyah</i> )
11:30	Cost optimal design of ZENs energy system <i>Dimitri Pinel, NTNU Trondheim</i>
12:00	Dimensioning of battery storage as temporary equipment during grid reinforcement caused by electric vehicles <i>Lukas Held, Karlsruhe Institute of Technology (IEH)</i>
12:30	Lunch break & networking
2nd Session:	Demand response ( <i>Chair: Armin Ardone</i> )
13:30	A discussion of mixed integer linear programming models of thermostatic loads in demand response <i>Vahid Rasouli, INESC Coimbra</i>
14:00	Modelling interactions between market power and demand response <i>Mel Devine, University College Dublin</i>
14:30	Weighted fair queuing as a scheduling algorithm for deferrable loads in smart grids improving distress distribution over a greedy strategy <i>Tuncer Haslak, FAU Erlangen</i>
15:00	Coffee break
3rd Session:	Optimal power flow 1 ( <i>Chair: Vincent Heuveline</i> )
15:30	Policy optimization for optimal power flow under uncertainty <i>Tillmann Mühlpfordt, Karlsruhe Institute of Technology (IAI)</i>
16:00	Distributed optimal power flow – feasibility vs. optimality <i>Alexander Engemann, Karlsruhe Institute of Technology (IAI)</i>
16:30	ADMM based decoupling techniques for unit commitment problems considering grid restrictions <i>Viktor Slednev, Karlsruhe Institute of Technology (IIP)</i>
17:00	End of the first conference day
17:15	Visit of the brewery Hoepfner
17:15	Guided city tour
19:00	Dinner & networking

Day 2

11th of October, 2018

**4th Session: Energy system integration** (Chair: Valentin Bertsch)

**08:30** A green copper concept: on the design of a full-renewable energy supply for its production

*Simón Moreno Leiva, Stuttgart University*

**09:00** Effects of power changes on the gas network / Optimal control of coupled power and gas networks

*Eike Fokken, Mannheim University*

**09:30** Coffee break

**10:00** Keynote (Chair: Valentin Bertsch)

**Modelling challenges for energy systems integration – the good, the bad and the ugly**

*Mark O'Malley, Chief Scientist, Energy Systems Integration and Senior Research Fellow at the National Renewable Energy Laboratory, USA.*

**5th Session: Optimal power flow 2 (AC/DC)** (Chair: Thomas Leibfried)

**11:00** Security analysis for embedded HVDC in transmission grids

*Marco Giuntoli, ABB Ladenburg*

**11:30** Decentralized optimal power flow in hybrid AC-DC grids

*Nico Meyer-Hübner, Karlsruhe Institute of Technology (IEH)*

**12:00** Lunch break & networking

**13:00** Panel discussion (Chair: Wolf Fichtner, Valentin Bertsch)

**Bridging the gap between mathematical modelling and policy support**

*Sonja Babrowski (MVV Trading GmbH), Jörg Jasper (EnBW Energie Baden-Württemberg AG), Mark O'Malley (NREL), Neil Strachan (University College London), Ulrich Janischka (TransnetBW GmbH)*

**14:00** Coffee break

**6th Session: Transmission and generation expansion** (Chair: Wolf Fichtner)

**14:30** The cost-benefit of transmission expansion in a sector-coupled, highly-renewable European energy scenario

*Tom Brown, Karlsruhe Institute of Technology (IAI)*

**15:00** The performance of planning reserve constraints to deal with demand uncertainty in long-term planning models

*Tim Mertens, KU Leuven*

**15:30** Generation and transmission expansion in Uganda: The cost of minimising sub-national energy inequalities

*Peter Wilson, University of Bath*

**16:00** Summary & closing (Wolf Fichtner)