

Topics submitted for the morning session

No. Topic *For further details, please see the board in the entrance area of the auditory ML E 12* Proposed by Room Time Slot

Session 1 | GEP Pavillon | 10.45-11.15

01	Integration of electric vehicles in local smart grids	Alexandra Asfour, St. Gallisch-Appenzellische Kraftwerke SAK	GEP Pavillon 10.45-11.15
03	Fueling stations for battery-electric and fuel cell vehicles	Christopher Dennison (et al.), Laboratoire d'Electrochimie Physique et Analytique, EPFL	GEP Pavillon 10.45-11.15
16	Integration of mobility in current energy networks and future energy networks, dominated by fluctuating renewable energy sources	Gil Georges, LAV ETHZ	GEP Pavillon 10.45-11.15
18	Renewable fuels for future combustion-based mobility	Konstantinos Boulouchos, Christoph Barro, LAV ETHZ	GEP Pavillon 10.45-11.15
28	Verstärkung des Systemzusammenspiels ÖV-MIV und miteinbezogene Fragestellungen (Zusammenspiel Netz, Ladeinfrastruktur, Speicherarten, etc.)	Vinzenz Härrli, CC IIEE HSLU	GEP Pavillon 10.45-11.15
26	Green-ITS: Technical and systemic measures for increasing the overall traffic efficiency and carbon footprint	Vinzenz Härrli, CC IIEE HSLU	GEP Pavillon 10.45-11.15

Session 1 | HG F 33.1 | 10.45-11.15

07	Finalization of SCCER-Mobility scenarios for phase I (and beyond)	Ramachandran Kannan and Rashid Waraich, Laboratory for Energy Systems Analysis, PSI	HG F 33.1 10.45-11.15
08	Interdisciplinary criteria and indicators for the evaluation of mobility options	Stefan Hirschberg, Laboratory for Energy Systems Analysis, PSI	HG F 33.1 10.45-11.15
15	Portfolio optimization for commercial, heavy-duty vehicle fleets	Gil Georges, LAV ETHZ	HG F 33.1 10.45-11.15

Session 1 | HG E 41 | 10.45-11.15

06	Bioinspired composites by vacuum assisted magnetic alignment	Madeleine Grossman, Complex Materials, ETH Zurich	HG E 41 10.45-11.15
09	Thermal management of lithium-ion batteries	Max Stöck and Gerhard Rizzo, Institute for the Development of Mechatronic Systems, NTB	HG E 41 10.45-11.15
14	Non-propulsive energy demand in private and commercial mobility, including freight: assessing the related energy demand and effectively reducing it	Gil Georges, LAV ETHZ	HG E 41 10.45-11.15
29	Lightweight, affordable, sustainable, multifunctional materials for mobility	Clemens Dransfeld, FHNW	HG E 41 10.45-11.15

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Session 2 | GEP Pavillon | 11.20-11.50

04	Promotion of fuel cell (FC) based vehicles and technologies in Switzerland	Jaka Dujc, Institute of Computational Physics, ZHAW	GEP Pavillon 11.20-11.50
05	Fuel cell powered vehicles	Jürgen Schuhmacher, Institute of Computational Physics, ZHAW	GEP Pavillon 11.20-11.50
19	Low cost automotive fuel cells	Pierre Boillat, Electrochemistry Laboratory (LEC), PSI	GEP Pavillon 11.20-11.50
20	Advanced Battery Charging Technologies: Topologies, Control & Communication Algorithms and Product Development	Kurt Schenk, Andrea Vezzini, NTB and BFH	GEP Pavillon 11.20-11.50
21	Multilevel DC-DC Converters for High Voltage Battery Storage Applications using 2nd-life batteries from automotive applications	Jürgen Biela, Andrea Vezzini, BFH and ETHZ	GEP Pavillon 11.20-11.50
27	Leistungsspitzenreduktion und bessere Rekuperation von Bremsenergie in Eisenbahnsystemen	Vinzenz Härrli, CC IIEE HSLU	GEP Pavillon 11.20-11.50

Session 2 | HG F 33.1 | 11.20-11.50

02	Effects from green taxation on vehicle usage	Adan L. Martinez-Cruz, Centre for Energy Policy and Economics	HG F 33.1 11.20-11.50
10	Integration of socio-economic aspects with mobility and energy transformation	Merja Hoppe, Institute of Sustainable Development (INE), ZHAW	HG F 33.1 11.20-11.50
13	Mobility and driving behavior as key aspects for energy efficiency	Gil Georges, LAV ETHZ	HG F 33.1 11.20-11.50

Session 2 | HG E 41 | 11.20-11.50

11	Future emission legislations and their impact on engine calibration and control	Panagiotis Kyrtatos, LAV ETHZ	HG E 41 11.20-11.50
12	Three-dimensional Lattice Boltzmann (LB) modeling of two phase flows in PEMFCs	Ioannis Mantzaras, Combustion Research, PSI	HG E 41 11.20-11.50
17	Predictive modeling and simulations of multiphase and compressible flows	Ilya Karlin, LAV ETHZ	HG E 41 11.20-11.50