Working Group on Energy
Arbeitskreis Energie (AKE)

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Overview of Invited Talks and Sessions

(Lecture halls DÜL)

Invited Talks

AKE 1.1	Mon	11:00–11:30	DÜL	**Geothermal Energy: Risks and benefits in utilizing fluids from the deep underground** — •Simona Regenspurg, Ernst Huenges
AKE 2.1	Mon	11:30–12:00	DÜL	**New synthetic fuels: e-Methanol and its business cases** — •Ireneusz Pyc
AKE 3.1	Mon	12:15–12:45	DÜL	**NOx und andere luftverunreinigende Stoffe in der Außenluft und in Innenräumen: Ursachen und Wirkung** — •Tunga Salthammer
AKE 4.1	Mon	15:00–15:30	DÜL	**Highly Efficient Monolithic Tandem Devices with Perovskite Top Cells** — •Steve Albrecht
AKE 5.1	Mon	16:45–17:15	DÜL	**Limits to wind energy: From the physical basis to practical implications** — •Axel Kleidon
AKE 7.1	Tue	9:30–10:00	DÜL	**Zur Energiewende: Zweispeicher-Modell und Pumpspeicherkraftwerke im aufgelassenen Tagebauloch** — •Gerhard Luther, Horst Schmidt-Böcking
AKE 8.1	Tue	11:15–11:45	DÜL	**Bioenergy: Chances and Pitfalls** — •Katja Bühler
AKE 9.1	Tue	11:45–12:15	DÜL	**DESERTEC 3.0: Grüne Elektronen und grüner Wasserstoff aus der Wüste** — •Michael Düren, Johannes Hampp
AKE 10.1	Tue	14:00–14:30	DÜL	**Elektrische Energiespeicherung mit Flüssigmetallen und Salzschmelzen** — •Tom Weier, Gerrit M. Horstmann, Steffen Landgraf, Michael Nimtz, Paolo Personnettaz, Frank Stefani, Norbert Weber
AKE 10.2	Tue	14:30–15:00	DÜL	**Einsatz bildgebender Messverfahren und numerischer Modellierungswerkzeuge für die Verbesserung der Energieeffizienz industrieller Mehrphasenprozesse** — •Uwe Hampel
AKE 11.1	Tue	15:00–15:30	DÜL	**Nukleare Entsorgung im Kontext der internationalen Nutzung der Kernenergie** — •Thorsten Stumpf
AKE 12.1	Wed	15:00–15:30	DÜL	**Nuclear fusion on the way to ITER and beyond** — •Elisabeth Wolfrum, the ASDEX Upgrade Team
AKE 12.2	Wed	15:30–16:00	DÜL	**Hochbelastbare Materialien für die Kernfusion: Entwicklungen und Perspektiven** — •Christian Linsmeier
AKE 13.1	Wed	16:00–16:30	DÜL	**Digitale Herausforderungen für das Energiesystem der Zukunft** — •Hubert Keller

Invited talks of the joint symposium climate and energy: Challenges and options from a physics perspective (SYCE)

Wednesday		9:30–12:15	HSZ 02	See SYCE for the full program of the symposium.
SYCE 1.1	Wed	9:30–10:00	HSZ 02	**Towards a carbon-free energy system: Expectations from R&D in renewable energy technologies** — •Bernd Rech, Rutger Schlatmann
SYCE 1.2	Wed	10:00–10:30	HSZ 02	**Decarbonizing the Heating Sector - Challenges and Solutions** — •Florian Weiser

SYCE 1.3	Wed	10:30–11:00	HSZ 02	**The challenge of anthropogenic climate change - Earth system analysis can guide climate mitigation policy** — •Matthias Hofmann
SYCE 1.4	Wed	11:15–11:45	HSZ 02	**A carbon-free Energy System in 2050: Modelling the Energy Transition** — •Christoph Kost, Philip Sterchele, Hans-Martin Henning
SYCE 1.5	Wed	11:45–12:15	HSZ 02	**The transition of the electricity system to 100% renewable energy: agent-based modeling of investment decisions under climate policies** — •Kristian Lindgren

Sessions

AKE 1.1–1.1	Mon	11:00–11:30	DÜL	**Renewable Energy - Geothermal Energy**
AKE 2.1–2.2	Mon	11:30–12:15	DÜL	**Transport - Climate-neutral Synthetic Fuels**
AKE 3.1–3.1	Mon	12:15–12:45	DÜL	**Environmental Aspects: Emission and Immission**
AKE 4.1–4.5	Mon	15:00–16:45	DÜL	**Renewable Energy - Photovoltaics and Electronic Processes**
AKE 5.1–5.1	Mon	16:45–17:15	DÜL	**Renewable Energy - Wind Energy**
AKE 6.1–6.1	Mon	17:15–17:45	DÜL	**Climatic Response to Emission Scenarios**
AKE 7.1–7.5	Tue	9:30–11:15	DÜL	**Energy Storage; Batteries, Systems Modelling**
AKE 8.1–8.1	Tue	11:15–11:45	DÜL	**Renewable Energy - Unconventional Bio Energy**
AKE 9.1–9.3	Tue	11:45–12:45	DÜL	**Renewable Energy - Solar Energy**
AKE 10.1–10.2	Tue	14:00–15:00	DÜL	**Energy Storage and Industrial Processes**
AKE 11.1–11.1	Tue	15:00–15:30	DÜL	**Nuclear Energy, Waste Management**
AKE 12.1–12.2	Wed	15:00–16:00	DÜL	**Nuclear Fusion**
AKE 13.1–13.2	Wed	16:00–16:45	DÜL	**Cyber Aspects in future Energy Systems**