

# Program

## Sunday, 08 April 2018

- 17:00 – 21:00 Registration
- 18:00 *BUFFET SUPPER / Informal get together*
- 19:30 – 19:35 Gabi Schierning **Opening and welcome words**
- 19:35 – 20:20 Jeff Snyder **Engineering thermal and electrical interfaces and grain boundaries in thermoelectric materials**
- 20:20 – 21:05 Bo Brummerstedt Iversen **Structural thermoelectrics**

## Monday, 09 April 2018

07:30 BREAKFAST

### **Thermoelectric heterostructures and interfaces**

- 08:30 – 09:15 David C. Johnson **Optimizing thermal conductivity, power factors and contacts using heterostructures**
- 09:15 – 10:00 Pamela Norris **Tuning phonon transport: From interfaces to nanostructures**

10:00 – 10:30 *COFFEE BREAK*

### **Thermoelectric devices**

- 10:30 – 10:55 Johannes de Boor **Towards magnesium-silicide based thermoelectric generators: contact development for n- and p-type Mg<sub>2</sub>X (X=Si,Sn)**
- 10:55 – 11:20 Axel Rost **Joining of ceramic based thermoelectric generators**
- 11:20 – 11:45 Pawel Ziolkowski **TEG design for waste heat recovery at an aviation jet engine nozzle**

11:50 **Conference Photo** (in front of the Physikzentrum)

12:00 *LUNCH*

# Program

**Monday, 09 April 2018**

## **High temperature thermoelectric energy conversion**

- 13:45 – 14:30 Anke Weidenkaff **High temperature thermoelectric materials**
- 14:30 – 15:15 Andrea Pickel **Extending thermoelectricity to 3,000 K via reduced graphene oxide films**
- 15:15 – 15:40 Franziska Maculewicz **Thermoelectric charge separation within pn- junction TEGs**
- 15:40 – 16:00 *COFFEE BREAK*
- 16:00 – 18:00 **Poster Session**
- 18:45 *DINNER*

# Program

**Tuesday, 10 April 2018**

07:30            BREAKFAST

## **Materials and mechanism**

08:30 – 08:55   Matthias Agne            **Minimum thermal conductivity in the context of diffusion-mediated thermal transport**

08:55 – 09:20   Ran He                                    **P-type ZrCoBi-based half-Heuslers with a high thermoelectric conversion efficiency of ~9%**

09:20 – 09:45   Joaquin Miranda            **Demixing and ordering in Ni(Ti,Zr)(Sb,Sn) and Co(Ti,Zr)(Sb,Sn) half-Heusler materials**

09:45 – 10:10   *COFFEE BREAK*

## **Linking materials, manufacturing, and systems**

10:15 – 11:00   Sanyia LeBlanc            **Cost-performance perspectives of thermoelectric devices: Linking materials, manufacturing, and systems**

11:00 – 11:45   Gerhard Span                **Necessities for building successful thermoelectric systems**

12:00            *LUNCH*

# Program

**Tuesday, 10 April 2018**

## **Thermoelectronic energy conversion**

14:00 – 14:45 Jochen Mannhart      **Thermoelectronic energy conversion**

## **Thin films and microstructured thermoelectric devices**

14:45 – 15:10 Guodong Li      **Integrated micro- thermoelectric coolers with high packing density and excellent device performances**

15:10 – 15:40 *COFFEE BREAK*

15:40 – 16:05 Maik Wagner-Reetz      **Infrared thermopile sensors:  
From process to product**

16:05 – 16:30 Marc Lindorf      **Thermoelectric nanocrystalline SiGe thin films prepared by the combination of AIC and SiO<sub>2</sub> reduction**

16:30 – 16:55 Felix Timmermann      **Molecular Beam Deposition of thin YbzFeSb<sub>3</sub> films on (001) oriented KCl**

16:55 – 17:05 Gabi Schierning      **Best poster awards  
by the WEH foundation**

18:30      *HERAEUS DINNER  
(cold & warm buffet with complimentary drinks)*

# Program

**Wednesday, 11 April 2018**

07:30            BREAKFAST

## **Thermoelectric materials and characterization**

- 08:30 – 08:55   Christoph Bauer            **Wet chemical synthesis and processing of 2D SnS and SnSe nanosheets**
- 08:55 – 09:40   Gavin Vaughan            **Diffraction-Based Characterization of Local Structure in Three Dimensions under Operando Conditions**
- 09:40 – 10:05   Stefan Schwarzmüller   **Structural characterization of thermoelectric materials with mobile atoms**
- 10:05 – 10:35   *COFFEE BREAK*
- 10:35 – 11:20   Kanishka Biswas            **Low thermal conductive metal chalcogenides for high performance thermoelectrics**
- 11:20 – 11:45   Pascal Boulet            **Relationship between structure and thermoelectric properties in tetrahedrite**
- 11:45 – 12:10   Wolfgang Tremel            **Argyrodite thermoelectrics**
- 12:10 – 12:15   Gabi Schierning            **Closing remarks**
- 12:25            *LUNCH*

***End of the seminar and FAREWELL COFFEE / Departure***

*Please note that there will be **no** dinner at the Physikzentrum on Wednesday evening for participants leaving the next morning.*