

## Program

### **Thermoelectrics - from fundamentals to applications**

Oslo Science Park (Forskningsparken), Gaustadalléen 21, NO-0349 Oslo, Norway

Room: Hagen 1+2

26. April 2018 09.30-17.30 (+dinner at 18.00)

09.30 **Arrival, coffee**

09.45 Welcome. T. Norby, UiO: *From THELMA via THERMiO to innovation and industry*

10.00-11.10 **Session 1: Materials, fundamentals, tutorials.** Chair: Truls Norby

10.00 Anke Weidenkaff, Univ. Stuttgart: *Materials engineering for alternative solar energy converters*

10.40 Christian Zimmerman, UiO: *Fundamentals of p-n junctions*

11.10 **Break - fruit**

11.30-12.50 **Session 2: Fundamentals, novel concepts, THELMA.** Chair: Xin Song

11.30 Kjell Wiik, NTNU: *THELMA activities at NTNU in Trondheim: Developing TEGs and improve n-type oxides*

11.50 Christian Berland, UiO: *Strategies to improve thermoelectric transport: Insights from first-principle studies on Half Heuslers*

12.10 Magnus Sørby, IFE: *Diffraction studies of Half-Heusler alloys*

12.30 Matthias Schrade, UiO: *Revisiting the Callaway model for analysis of experimental thermal conductivity data*

13.00 **Lunch**

14.00-15.10 **Session 3: Innovation and devices, THERMiO.** Chair: Raphael Schuler

14.00 Ngo van Nong, DTU: *High performance thermoelectric materials and modules for energy harvesting*

14.30 Henrik Riis, UiO: *Interconnects and metallisation for HT-TEGs*

14.50 Reshma Madathil, UiO: *Composite p-n interconnects for all-oxide HT-TEGs*

15.10 **Break - coffee**

15.30-16.50 **Session 4: Implementation, commercialisation.** Chair: Kjell Wiik

15.30 Guttorm Syvertsen-Wiig, CerPoTech: *Preparation of oxide materials by spray pyrolysis*

15.50 Marie-Laure Fontaine, SINTEF: *Oxide thermoelectric module development*

16.10 Ole Martin Løvvik, SINTEF: *The infrastructure initiative TENOR - Thermoelectricity Norway*

16.30 Tore Vehus, UiA: *New Norwegian startup/spinoff on oxide thermoelectrics*

16.50 **General discussion and conclusions.** Chair: Truls Norby

17.30 Close + Free time for individual discussions, planning, etc.

**18.00 Dinner (in Forskningsparken: Tapas, wine, mineral water)**