

ADVANCED IMAGING OF FERROIC MATERIALS

Wilhelm and Else Heraeus Seminar

Tentative Program

Sunday, 31.05.2026

17:00 – 21:00 Registration

18:00 DINNER

19:30 – 19:40 Opening and Welcome

19:40 – 21:10 **Evening Session – Framing the topic of the seminar**

Introductory presentations:

Manfred Fiebig - *Modern understanding of ferroics*

Dennis Meier - *Advanced imaging – What's possible and what's not*

Monday, 01.06.2025

07:30 BREAKFAST

Session 1 – Fundamentals of Ferroics I

08:30 – 09:15 Andres Cano (*Concept and definition of ferroic order*)

09:15 – 10:00 Kathrin Dörr (*Strain-control of ferroic order*)

10:00 – 10:30 COFFEE BREAK

Session 2 – Fundamental of Ferroics II

10:30 – 11:15 Mike Glazer (*Symmetry-property relations in ferroic crystals*)

11:15 – 12:00 Jiri Hlinka (*Ferro-rotational order*)

12:00 – 12:10 *Conference photo*

12:30 LUNCH

Session 3 – Imaging of Ferroic Order I

13:45 – 14:30 Hiroko Yokota (*Nonlinear optical techniques*)

14:30 – 15:15 Salia Cherifi-Hertel (*Scanning nonlinear microscopy*)

15:15 – 15:30 COFFEE BREAK

15:30 – 18:00 **Poster Session**

18:45 DINNER

Tuesday, 02.06.2025

07:30 **BREAKFAST**

Session 4 – Imaging of Ferroic Order II

8:30 Claire Donnelly (*X-ray vector nano-tomography*)

9:15 Rafal E. Dunin-Borkowski (*Electron holography*)

10:00 – 10:30 **COFFEE BREAK**

Session 5 – Imaging of Ferroic Order III

10:30 Marty Gregg (*Scanning probe tomography*)

11:15 Colin Ophus (*Electron ptychography and 4D STEM*)

12:30 **LUNCH**

Session 6 – Modelling of Ferroics and Antiferroics I

13:45 Anna Grünebohm (*Scale-bridging simulations*)

14:30 Thomas Lottermoser (*Monte Carlo simulations*)

15:15 – 15:45 **COFFEE BREAK**

Session 7 - Modelling of Ferroics and Antiferroics II

15:45 Jorge Íñiguez-González (*Second principles calculations*)

16:30 Long-Qing Chen (*Phase field methods*)

Appreciation of the WEH-Poster awards

17:15 *About the WEH foundation*

18:45 DINNER

Wednesday, 03.06.2025

07:30 **BREAKFAST**

Session 8 – Imaging of Noncollinear and Anti-ferroic Order I

08:30 Christian Degen (*Nitrogen vacancy center magnetometry*)

9:15 Gustau Catalan (*Antiferroelectric domain walls*)

10:00 – 10:30 COFFEE BREAK

Session 9 – Imaging of Noncollinear and Anti-ferroic Order II

10:30 Michele Conroy (*STEM of antiferroelectrics*)

11:15 Bernd Kaestner (*Magneto-Seebeck microscopy*)

12:30 LUNCH

Session 10 – Non-equilibrium effects I

13:45 Burak Guzelturk (*X-ray-induced domain dynamics*)

14:30 Martina Basini (*Dynamic multiferroic states*)

15:15 – 15:45 COFFEE BREAK

16:15 *Social Event – Hike to Drachenfels*

HERAEUS DINNER

19:00 Cold & warm buffet, free beverages

Thursday, 04.06.2025

07:30 BREAKFAST

08:30 – 10:00 Session 11 – Non-equilibrium effects II

8:30 Theo Rasing (*Ultrafast magnetism*)

9:15 Uwe Bovensiepen (*Structural dynamics*)

10:00 – 10:30 COFFEE BREAK

Session 12 – Whither Ferroics

10:30 Nicola Spaldin (*Multipolar ferroic order*)

11:15 Paolo Radaelli (*Altermagnetism and spin groups*)

12:00 – 12:15 Closing remarks

12:30 LUNCH

13:30 End of seminar and departure