

Program

Sunday, January 6, 2019

17:00 – 21:00 Registration

18:00 *BUFFET SUPPER and get-together*

Monday, January 7, 2019

08:00 *BREAKFAST*

09:00 – 09:15 Scientific organizers **Opening**

Information processing with magnetic textures

09:15 – 10:00 Julie Grollier **Neuromorphic computing with
spintronic nano-oscillators**

10:00 – 10:45 Alice Mizrahi **Unconventional computing with
stochastic magnetic tunnel junctions**

10:45 – 11:15 *COFFEE BREAK*

11:15 – 12:00 Karin Everschor-Sitte **Reservoir computing with Skyrmion
fabrics**

12:00 – 12:30 Christina Psaroudaki **Quantum dynamics of Skyrmions in
chiral magnetic insulators**

12:30 – 12:40 **Conference Photo** (in the front of the lecture hall)

12:40 *LUNCH*

Program

Monday, January 7, 2019

Information processing with magnetic textures/ Magnon based logic

14:15 – 15:00	Stephan Heinze	Exploring magnetic skyrmions for spintronics from first-principles
15:00 – 15:30	Silvia Viola Kusminskiy	Cavity optomagnonics with magnetic textures: coupling a magnetic vortex to light
15:30 – 16:15	Felix Casanova	Spin-to-charge current conversion for logic devices
16:15 – 16:45	Andrew Ross	Efficient magnonic spin transport in insulating antiferromagnetic thin films
16:45 – 17:15	<i>COFFEE BREAK</i>	
17:15 – 18:45	Shotgun-Presentation	
19:00	<i>HERAEUS DINNER (social event with cold & warm buffet with complimentary drinks)</i>	
20:00	Poster-Session	

Program

Tuesday, January 8, 2019

08:00	<i>BREAKFAST</i>	
09:00 – 09:15	Stefan Jorda	About the Wilhelm and Else Heraeus Foundation
	<i>Magnon based logic</i>	
09:15 – 10 :00	Andrii Chumak	Integrated magnonic half-adder
10 :00 – 10 :45	Sebastian Gönnenwein	Spin transport experiments
10:45 – 11:15	<i>COFFEE BREAK</i>	
11:15 – 12:00	Bart van Wees	Magnon transport and dynamics in magnetic insulators
12:00 – 12:45	Matthias Althammer	All-electrical control of spin conductance in magnetically ordered insulators
12:45	<i>LUNCH</i>	

Program

Tuesday, January 8, 2019

Spin based information processing

14:15 – 15:00	Anton Akhmerov	Fermionic quantum computation with Majorana states
15:00 – 15:45	Wolfgang Wernsdorfer	Operating quantum states in single magnetic molecules
15:45 – 16:30	Juan Pablo Dehollain	Analogue and digital simulations with spins in quantum dots
16:30 – 17:00	Hans Werner Schumacher	Gate controlled loading of singlet and triplet electron pairs in a single electron pump
17:00 – 17:30	<i>COFFEE BREAK</i>	
17:30 – 19:00	Poster-Session	
19:00	<i>DINNER</i>	
20:00 – 20:45	Jian-Ping Wang	Computing with magnetic tunnel junctions for AI

Program

Wednesday, January 9, 2019

08:00 *BREAKFAST*

Ultrafast magnetization control

09:00 – 09:45 Ulrich Nowak **Spin dynamics beyond GHz: ferro-
versus antiferromagnets**

09:45 – 10:30 Yuriy Mokrousov **Electrical and optical manifestations of
emergent monopoles in complex
magnets**

10:30 – 11:00 *COFFEE BREAK*

11:00 – 11:45 Dmitry Turchinovich **Ultrafast terahertz magnetometry**

11:45 – 12:15 Dennis Meyer **Approaching THz spin-wave generation
in optically-driven acoustic resonators**

12:15 – 12:30 Scientific organizers **Closing words**

12:30 *LUNCH*

End of the seminar and departure

NO DINNER for participants leaving on Thursday morning