

Qu.  
Spin

QUANTUM  
SPINTRONICS 2019  
INTERNATIONAL WORKSHOP  
SEPTEMBER 25<sup>TH</sup> - 26<sup>TH</sup>



# WELCOME TO QUANTUM SPINTRONICS 2019

## CONFERENCE CENTER

Hotel Scandic Nidelven  
Havnegata 4, Trondheim

## WORKSHOP DINNER

Rockheim Panorama  
Brattørkaia 14, Trondheim

## QUSPIN CENTER

Realfagsbygget, E5, Høgskoleringen 5, Trondheim



SCANDIC NIDELVEN



ROCKHEIM



QUSPIN CENTER



**ROCKHEIM**

**CENTRAL STATION**

**10 MIN WALK**

**SCANDIC NIDELVEN**

**RAVNKLOA**

FOSENKAIJA

FJORDGATA

NORDRE GT

SONDRE GT

OLAV TRYGGVASSONS GATE

KJØPMANNSGATA

BAKKE BRU

DRONNINGENS GATE

**CITY SQUARE**

PRINSENS GATE

KONGENS GATE

ERLING

SKAKKES GATE

GAMLE

BYBRO

BISPEGATA

**NIDAROS CATHEDRAL**

ELGESETER BRU

**STUDENT SOCIETY BUILDING**

**ST. OLAVS HOSPITAL**

**NTNU CAMPUS GLØSHAUGEN**  
● **QUSPIN – CENTER FOR QUANTUM SPINTRONICS**

# WEDNESDAY

## SEPTEMBER 25<sup>TH</sup>

**08.30 - 09.00**

Registration and morning coffee

**09.00 - 09.05**

Arne Brataas

*Opening remarks*

### SPIN INSULATRONICS

Discussion Leader: Arne Brataas

**09.05 - 09.50**

Gerrit E. W. Bauer (Tohoku University, Japan)

*YIG - THE magnet*

**09.50 - 10.10**

Break

**10.10 - 10.40**

Hans Hubl (Walter Meissner Institute, Germany)

*Controlling Magnons - Transport Properties  
& Magnon-Photon Hybridization*

**10.40 - 11.00**

Break

**11.00 - 11.30**

Burkard Hillebrands (TU Kaiserslautern, Germany)

*Magnonics with Macroscopic Quantum States*

**11.30 - 12.00 - GROUP PHOTO SESSION**

All

**12.00 - 13.00**

Lunch

## **SUPER SPINTRONICS**

Discussion Leader: Jacob Linder

**13.00 - 13.45**

Matthias Eschrig (Royal Holloway, England)

*Foundations of Superconducting Spintronics*

**13.45 - 14.05**

Break

**14.05 - 14.35**

Norman O. Birge (Michigan State University, USA)

*Ferromagnetic Josephson Junctions for Cryogenic Memory*

**14.35 - 14.55**

Break

**14.55 - 15.25**

Jason W. A. Robinson (Cambridge University, England)

*Nodal superconducting exchange coupling*

## **15.25 - 17.00 - POSTER SESSION**

**17.00 - 18.30**

Break for leisure, walk "Hjerteløypa/the Heart Track", or walk "Tidstunnelen/the Time Tunnel" at Rockheim Music Museum

**19.00 - 21.00**

Workshop dinner at Rockheim Panorama, by the Fjord

# THURSDAY SEPTEMBER 26<sup>TH</sup>

**08.30 - 09.00**

Morning coffee

## TOPOLOGICAL MATTER

Discussion Leader: Asle Sudbø

**09.00 - 09.45**

Ralph Claessen (University of Würzburg, Germany)

*Elemental topological insulators: The case of bismuthene*

**09.45 - 10.05**

Break

**10.05 - 10.35**

Anton Akhmerov (TU Delft, the Netherlands)

*Majoranas in zigzag geometry: Why shape matters*

**10.35 - 10.55**

Break

**10.55 - 11.25**

Shahal Ilani (Weizmann Institute of Science, Israel)

*Imaging interacting electrons in graphene*

**11.30 - 12.00 - SPEAKERS/PI'S PHOTO SESSION**

**12.00 - 13.00**

Lunch

## EXPERIMENTAL DEVELOPMENTS

Discussion Leader: Justin Wells

### 13.00 - 13.45

Kai Rossnagel (Christian-Albrechts-Universität zu Kiel, Germany)

*More than electrons: Energy-momentum microscopy of quantum materials*

### 13.45 - 14.05

Break

### 14.05 - 14.35

Dr. Jude Laverock (University of Bristol, UK)

*Exploring charge density wave order in 2D materials using PEEM and ARPES*

### 14.35 - 14.55

Break

### 14.55 - 15.25

Oscar Tjernberg (KTH Royal Institute of Technology, Sweden)

*How to and how not to build a laser ARPES instrument*

### 15.25 - 15.35

Arne Brataas

*Closing.*

*Next year's Quantum Spintronics 2020*

*The program might be subject to change*

**ORGANISED BY THE CENTER FOR QUANTUM  
SPINTRONICS (QUSPIN)**

By Arne Brataas, Asle Sudbø, Jacob Linder, Justin  
Wells and Karen-Elisabeth Sødahl

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