Program

Sunday, 16 June 2019

16:00 – 21:00  Registration
from 18:00  BUFFET SUPPER / Informal get together
19:45 – 20:00  Scientific organizers  Opening and welcome
   Chair: Heike Riel
20:00 – 21:00  Charles Bennett  Quantum information's birth, growth, and significance

Monday, 17 June 2019

07:45  BREAKFAST

Chair: Katharina Franke
08.45 – 09:30  Werner Wegscheider  Cleaved Edge Overgrowth - current status, perspectives and experimental challenges
09:30 – 10:15  Jelena Klinovaja  Andreev bound states and Majorana fermions in helical 1D systems
10:15 – 10:45  COFFEE BREAK

Chair: Stefan Ludwig
10:45 – 11:30  Dominik Zumbühl  Edge state spectroscopy with a GaAs quantum wire
11:30 – 12:30  Poster flash presentations (60 sec. each / 1 slide)
12:30  LUNCH
Monday, 17 June 2019

**Chair: Jan von Delft**

14:00 – 14:45  Oleg Yevtushenko  Helicity-protected transport in magnetically doped one-dimensional wires

14:45 – 15:30  Fabrizio Nichele  InAs/Al two-dimensional electron gases

15:30 – 16:15  Hongqi Xu  Semiconductor InSb nanolayers: A new platform for developments of quantum and topological devices

16:15 – 17:00  Yuval Oreg  Insulating phases of topological superconductors - the super-symmetric Majorana-zero modes point of view

17:00 – 17:30  COFFEE BREAK

17:30 – 18:30  Poster session I

18:30  DINNER

**Chair: Christian Schönenberger**

20:00 – 21:00  Leo Kouwenhoven  1D hybrid nanowires of superconducting and semiconducting materials as a scalable platform for qubit circuits
## Program

**Tuesday, 18 June 2019**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker/Speaker Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>07:45</td>
<td>BREAKFAST</td>
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<tr>
<td></td>
<td><strong>Chair: Thomas Schäpers</strong></td>
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<tr>
<td>08:45</td>
<td>Stefan Jorda</td>
<td>About the Wilhelm and Else Heraeus-Foundation</td>
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<td>09:00</td>
<td>Koji Ishibashi</td>
<td>Quantum structures with carbon nanotubes</td>
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<td>09:45</td>
<td>Jan von Delft</td>
<td>Multiloop functional renormalization group: Computing finite-temperature transport through inhomogeneous quantum wires</td>
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<td>10:30</td>
<td>COFFEE BREAK</td>
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<td>10:30</td>
<td><strong>Chair: Charles Marcus</strong></td>
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<tr>
<td>11:00</td>
<td>Katharina Franke</td>
<td>From single magnetic adatoms on superconductors to coupled spin chains</td>
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<td>11:45</td>
<td>Erik Bakkers</td>
<td>Bottom-up grown nanowire quantum devices</td>
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<td>12:30</td>
<td><strong>Conference Photo</strong></td>
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<tr>
<td>12:40</td>
<td>LUNCH</td>
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Program

Tuesday, 18 June 2019

**Chair: Piet Brouwer**

14:00 – 14:45  Peter Krogstrup  
*Engineering electronic hybridization in epitaxial materials*

14:45 – 15:30  Eduardo Lee  
*Andreev bound states in hybrid superconductor-semiconductor nanowire devices*

15:30 – 16:15  Vadim Khrapai  
*Heat conductance of an InAs nanowire proximitized by a superconductor*

16:15 – 16:45  **COFFEE BREAK**

**Chair: Heike Riel**

16:45 – 17:30  Julia Meyer  
*Multiterminal Josephson junctions based on helical states*

17:30 – 18:15  **Panel discussion**

18:15  HERAEUS DINNER at the Physikzentrum  
(cold & warm buffet, free beverages)

20:00  **Poster session II**
Wednesday, 19 June 2019

08:00 BREAKFAST

**Chair: Julia Meyer**

09:00 – 09:45 Piet Brouwer  
*Quantum tomography of solitary electrons*

09:45 – 10:30 Floris Zwanenburg  
*Quantum dots and superconductivity in GeSi nanowires*

10:30 – 11:00 COFFEE BREAK

**Chair: Eduardo Lee**

11:00 – 11:45 Thomas Schäpers  
*In-situ prepared nanowire-based Josephson junctions for qubit applications*

11:45 – 12:30 Martin Stehno  
*Topological superconductivity in HgTe-based topological materials*

12:30 LUNCH

**Chair: Koji Ishibashi**

14:00 – 14:45 Anton Akhmerov  
*Majoranas in zigzag devices: Why shape matters*

14:45 – 15:30 Charles Marcus  
*Vortices, Majorana zero modes, and quantum phase transitions in full-shell hybrid nanowires*

15:30 – 15:45 Scientific organizers  
*Poster awards and closing remarks*

**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.