

Program

Monday, November 12, 2018

09:00 – 16:00 Registration

12:30 *LUNCH / Informal get together*

14:00 – 14:10 Scientific organizers **Opening and welcome**

CHAIR: Alexej Semenov Sr

14:10 – 15:10 Gregory Goltsman **From hot-electron phenomena in disordered superconducting film to superconducting single-photon detectors**

15:10 – 15:40 Eric Bonvin **Near-field imaging of single-photon counting superconducting nanowires**

15:40 – 16:10 Yuliya Korneeva **From single-photon detection in micrometer-scale bridges to practical detectors**

16:10 – 16:30 COFFEE BREAK

CHAIR: Sae Woo Nam

16:30 – 17:30 Karl Berggren **Using the plasmonic character of superconducting nanowire microwave transmission lines**

17:30 – 18:10 Alexander Semenov Jr **Can one use low-volume KID or SSPD to detect single 2Δ photon?**

18:30 DINNER

Program

Tuesday, November 13, 2018

08:00 BREAKFAST

CHAIR: Mariia Sidorova

09:00 – 10:00 Denis Vodolazov

Minimal timing jitter in SNSPD

10:00 – 10:30 Artem Kuzmin

Timing jitter of RF-SNSPDs with different resonance frequencies

10:30 – 11:00 *COFFEE BREAK*

CHAIR: Alexander Kozorezov

11:00 – 11:40 Mariia Sidorova

Timing jitter in photon detection by straight superconducting nanowires: Effect of magnetic field

11:40 – 12:20 Xiaolong Hu

Device timing jitter of superconducting nanowire single-photon detectors

12:20 **Conference Photo** (in the foyer of the lecture hall)

12:30 *LUNCH*

CHAIR: Xiaolong Hu

14:00 – 14:30 Boris Korzh

Experimental methods for studies of intrinsic jitter and latency in SNSPDs

14:30 – 15:10 Alexander Kozorezov

Intrinsic timing jitter and latency in superconducting single photon nanowire detectors

15:10 – 15:40 Jason Allmaras

Modeling of intrinsic detection latency and timing jitter in SNSPDs

15:40 – 16:10 *COFFEE BREAK*

CHAIR: Denis Vodolazov

16:10 – 16:40 Misael Caloz

Intrinsically-limited timing jitter in MoSi SNSPDs

16:40 – 17:40 **Discussion**

18:00 *DINNER*

Program

Wednesday, November 14, 2018

08:00 *BREAKFAST*

CHAIR: Alexander Semenov Jr

09:00 -09:40 Adriana Lita **Materials development for high efficiency superconducting nanowires single photon detectors**

09:40 – 10:20 Cheryl Feuillet-Palma **Towards high critical temperature superconducting single photon detector**

10:20 – 10:50 Narendra Acharya **MgB₂ nanowire photon detectors with a 70ps response time**

10:50 – 11:20 *COFFEE BREAK*

11:20 – 12:30 **Poster session**

12:30 *LUNCH*

CHAIR: Gregory Goltsman

14:00 – 15:00 Alexej Semenov Sr **Statistics of dark and photon counts in current-carrying superconducting nanowires**

15:00 – 16:00 **Discussion**

16:00 – 16:30 *COFFEE BREAK*

CHAIR: Cheryl Feuillet-Palma

16:30 – 17:10 Claire Autebert **Performance characterization and applications of MoSi SNSPDs**

17:10 – 17:50 Iman Esmaeil Zadeh **Superconducting single-photon detectors, a game changing technology, potentials and challenges**

17:50 – 18:30 Jonathan Finley **Quantum detectors and sources of semiconductors**

18:45 *DINNER*

Program

Thursday, November 15, 2018

08:00 *BREAKFAST*

CHAIR: Shigehito Miki

09:00 – 10:00 Robert Hadfield **Superconducting nanowire single-photon detectors: Current and emerging applications**

10:00 – 10:40 Lixing You **Superconducting nanowire single photon detectors for quantum information**

10:40 – 11:00 *COFFEE BREAK*

CHAIR: Lixing You

11:00 – 11:40 Emma Wollman **Superconducting nanowire single photon detectors for deep-space optical communication**

11:40 – 12:20 Labao Zhang **Superconducting nanowire-array detectors for satellite laser ranging technology**

12:30 *LUNCH*

Program

Thursday, November 15, 2018

CHAIR: Labao Zhang

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| 14:00 – 15:00 | Shigehito Miki | Research activities of superconducting nanowire single photon detectors in NICT |
| 15:00 – 15:30 | Mack Johnson | Addressing practicalities in a racetrack superconducting nanowire single-photon detector |
| 15:30 – 16:00 | Menno Poot | Linear optics quantum circuits with optomechanical phase shifters and integrated SSPDs |

16:00 – 16:30 COFFEE BREAK

CHAIR: Robert Hadfield

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| 16:30 – 17:10 | Wolfram Pernice | Waveguide integrated single photon detectors |
| 17:10 – 18:10 | Discussion | |
| 18:30 | <i>HERAEUS DINNER
(cold & warm buffet, free beverages)</i> | |

Program

Friday, November 16, 2018

08:00 *BREAKFAST*

CHAIR: Adriana Lita

09:00 – 09:40 Francesco Mattioli **From PNRD based on superconducting nanowires to pulse position readout of SSPD arrays**

09:40 – 10:10 Di Zhu **Delay-line-multiplexed single-photon detector array for photonic integrated circuits**

10:10 – 10:40 Xintong Hou **Broadband microfiber-coupled superconducting nanowire single-photon detector for visible and near-infrared light**

10:40 – 11:00 *COFFEE BREAK*

CHAIR: Karl Berggren

11:00 – 12:00 Sae Woo Nam **Superconducting nanowires: Progress and promise**

12:00 – 12:15 **Wrap-up discussion**

12:15 Scientific organizers **Poster awards and closing remarks**

12:30 *LUNCH*

End of the seminar and FAREWELL COFFEE / Departure

*Please note that there will be **no** dinner at the Physikzentrum on Friday evening for participants leaving the next morning.*