AGENDA

Sunday, 18 June 2017

Afternoon  Arrival/Hotel Check-in
           Washington Hilton Hotel
           1919 Connecticut Ave NW, Washington, DC

18:00  Welcome Dinner
       Bistro Bistro, 1727 Connecticut Ave NW, Washington, DC

Monday, 19 June 2017

8:00   Breakfast
       The Optical Society Headquarters
       2010 Massachusetts Ave, NW

8:30   Welcome
       Elizabeth Rogan, CEO, OSA

8:45   Program Overview and Goals
       Hosts

Session 1: Quantum Light Sources for Linear Quantum Optics

Chair: Eric Stinaff

9:00   Quantum Photonics with Solid-state Photon Sources
       Andrew White, University of Queensland, Australia
Monday, 19 June 2017, continued

9:30  Cavity Based Efficient Single Photon Sources
      Pascale Senellart, C2N-CNRS, University Paris Saclay, France

9:50  Single-photon Sources Based on Photonic Wire Antennas
      Julien Claudon, CEA, Grenoble, France

10:10 Quantum Dot Sources for Quantum Communications
      Andrew Shields, Toshiba Research Europe Ltd, United Kingdom

10:30 Coffee Break

10:50 Quantum Light Sources Based on Deterministically Fabricated Quantum Dot –
      Microlenses
      Stephan Reitzenstein, Technische Universität Berlin, Germany

11:10 Why I am Optimistic About Quantum Dot Based Entangled Photon Sources
      Fei Ding, IFW Dresden, Dresden, Germany

11:30 Discussion
      Moderators: Peter Lodahl, Fabio Sciarrino & Edo Waks

12:30 Lunch, provided

Session 2: Spin-Based Quantum Memories

Chair: Edward Flagg

13:30 A Noise-free Atomic Quantum Memory for Photonic Multiplexing
      Joshua Nunn, University of Oxford, United Kingdom

14:00 Electron Spin, Hole Spin and the Nuclear Spins in a Self-assembled Quantum Dot
      Richard Warburton, University of Basel, Switzerland

14:20 Quantum Spin-Photon Interfaces: Old Friends and New
      Mete Atature, Cambridge University, United Kingdom

14:40 Spectroscopy and Applications of Optically Controlled Quantum Dot Spins
      Duncan Steel, University of Michigan, United States
Monday, 19 June 2017, continued

15:00  The Quantum Knitting Machine: Quantum Dots as Devices for Producing Cluster States of Many Entangled Photons  
       David Gershoni, Technion, Israel

15:20  Coffee Break

15:40  Nuclear Spin Noise Effects on Resonance Fluorescence from Quantum Dots  
       Brian Gerardot, Heriot-Watt University, Edinburgh, Scotland

16:00  Dephasing of Spin-qubits and Generation of Photon Bundles using Quantum Dots  
       Jonathan Finley, Walter Schottky Institut, Germany

16:20  Optical Control of Single and Coupled Quantum Dots and their Emission Properties  
       Sam Carter, Naval Research Laboratory, United States

16:40  Controlling Light with Quantum Dot Spin On-a-chip  
       Edo Waks, University of Maryland/Joint Quantum Institute, United States

17:00  Discussion  
       Moderators: Joshua Nunn, Mete Atature & Pascale Senellart

18:00  Break for dinner

18:10  Dinner  
       Ezme, 2016 P St NW, Washington, DC

Tuesday, 20 June 2017

8:00  Breakfast  
       The Optical Society Headquarters  
       2010 Massachusetts Ave, NW

Session 3: Materials & Device Integration

Chair: Marcelo Davanco

8:30  Talk Title TBD  
       Dirk Englund, Massachusetts Institute of Technology, United States
Tuesday, 20 June 2017, continued

9:00  Boson Sampling with Integrated Photonics  
      Fabio Sciarrino, Univ degli Studi di Roma La Sapienza, Italy

9:30  Towards Hybrid Integration of Quantum Photonic Platforms  
      Alberto Peruzzo, Royal Melbourne Institute of Technology, Australia

10:00 Heterogeneous Integration of InAs/GaAs Quantum Dot Devices with SiliconNitride Photonic Circuits  
      Kartik Srinivasan, National Institute of Standards & Technology, United States

10:20  Coffee Break

10:40  Design and Growth of Quantum Dot Structures for Quantum Photonics  
      Allan Bracker, Naval Research Laboratory, United States

11:00  Discussion  
      Moderators: Dirk Englund, Matt Doty & Glenn Solomon

12:00  Lunch, provided

Session 4: Devices for Non-Linear Optical Quantum Technologies

Chair: Dan Dalacu

13:00  Exponential Improvement in Photon Storage Fidelities Using Atoms Coupled toAn Optical Nanofiber  
      Darrick Chang, ICFO, Spain

13:30  Integrated III-V Nonlinear Quantum Optical Devices  
      Gregor Weihs, University of Innsbruck, Austria

13:50  Towards Deterministic Quantum Gates with Quantum-dot Cavity-QED Devices  
      Loic Lanco, CNRS - University Paris 7, France
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<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>14:10</td>
<td>On-chip Quantum Photonics – Towards Commercial Applications</td>
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<td>Peter Lodahl, University of Copenhagen, Denmark</td>
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<td>14:30</td>
<td>Coffee Break</td>
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<tr>
<td>15:00</td>
<td>Polarization-controlled Fiber Coupled Quantum Dot Cavity QED</td>
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<td>Wolfgang Loeffler, Leiden University, The Netherlands</td>
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<td>15:20</td>
<td>Ultrafast Single Photon Transistor Based on a Single Solid-state Spin</td>
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<td>Shuo Sun, Stanford University, United States</td>
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<td>15:40</td>
<td>Discussion</td>
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<td></td>
<td>Moderators: Darrick Chang, Gregor Weih &amp; Dan Gammon</td>
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<tr>
<td>16:40</td>
<td>Wrap-up and next step</td>
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<td>17:00</td>
<td>Adjourn</td>
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