**iNOW 2018**

**Program Summary**

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**Saturday, July 21, 2018 (Bancroft Hotel, Berkeley)**

18:00-20:00  Registration and Welcome Reception Dinner

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**Sunday, July 22, 2018 (Sutardja Dai Hall Auditorium)**

8:30-8:45  Breakfast/Registration
8:45-9:00  Opening Ceremony (Chair: James Harris)

**Connie Chang-Hasnain**, University of California, Berkeley

9:00-10:30  Session S1 (Chair: James Harris)

- 9:00 - 9:45  **Dieter Bimberg**, Institute of Solid State Physics and Center of Nanophotonics, Technical University Berlin, Germany and Chinese-German Center for Energy Efficient Photonics Changchun Institute for Optics, Fine Mechanics and Physics, CAS; *Nanophotonics for a Green Internet*
- 9:45 - 10:30  **Vladimir Dubrovskii**, St. Petersburg Academic University; *Engineering atomically sharp heterostructures in vapor-liquid-solid nanowires*

10:30-11:00  Tea & Coffee Break

11:00-12:30  Session S2 (Chair: Connie Chang-Hasnain)

- 11:00 - 11:30  **Arka Majumdar**, University of Washington
- 11:30 - 12:00  **Chennupati Jagadish**, Australian National University
- 12:00 - 12:30  **Xiuling Li**, University of Illinois Urbana-Champaign

12:30-13:30  Lunch (SDH Atrium)

13:30-15:00  Session S3 (Chair: Vladimir Dubrovskii)

- 13:30 - 14:00  **Juergen Christen**, Otto-von-Guericke-Universität Magdeburg
- 14:00 - 14:30  **Soon Fatt Yoon**, Nanyang Technological University
- 14:30 - 15:00  **Eric Tournie**, University of Montpellier; *Antimonide-based optoelectronic devices epitaxially grown on Si*

15:00-15:30  Tea & Coffee Break

15:30-18:00  Poster Session 1 (Chair: Dieter Bimberg)

- 15:30 - 16:30  Poster Summary Talk
- 16:30 - 18:00  Poster Viewing

18:30-20:30  Dinner (Bancroft Hotel)
### Monday, July 23, 2018 (Sutardja Dai Hall Auditorium)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:30-9:00</td>
<td>Breakfast/Registration</td>
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<tr>
<td>9:30-10:30</td>
<td>Session Mo1 (Chair: Alfred Forchel)</td>
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<td>9:00 - 9:45</td>
<td>Ming Wu, University of California, Berkeley</td>
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<td>9:45 - 10:30</td>
<td>Kei May Lau, Hong Kong University of Science and Technology; <em>III-V Micro- and Nano-lasers grown on silicon emitting in the telecom band</em></td>
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<td>10:30-11:00</td>
<td>Tea &amp; Coffee Break</td>
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<tr>
<td>11:00-12:30</td>
<td>Session Mo2 (Chair: Ming Wu)</td>
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<tr>
<td>11:00 - 11:45</td>
<td>Alfred Forchel, University of Würzburg</td>
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<td>11:45 - 12:30</td>
<td>Yashuhiko Arakawa, University of Tokyo; <em>Quantum dot lasers and single photon sources on silicon</em></td>
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<td>12:30-13:30</td>
<td>Lunch (SDH Atrium)</td>
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<tr>
<td>13:30-15:00</td>
<td>Session Mo3 (Chair: Arka Majumdar)</td>
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<tr>
<td>13:30 - 14:00</td>
<td>Siyuan Yu, University of Bristol and Sun Yat-Sen University; <em>Nanophotonics devices for mode multiplexed optical communications</em></td>
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<tr>
<td>14:00 - 14:30</td>
<td>Jie Yao, University of California, Berkeley; <em>Novel Material Platforms for Nanophotonics</em></td>
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<td>14:30 - 15:00</td>
<td>Bala Pasala, Central Electronics Engineering Research Institute; <em>Terahertz technologies for security, biological and industrial applications</em></td>
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<td>15:00-15:30</td>
<td>Tea &amp; Coffee Break</td>
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<tr>
<td>15:30-18:00</td>
<td>Poster Session 2 (Chair: Yashuhiko Arakawa)</td>
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<tr>
<td>15:30 - 16:30</td>
<td>Poster Summary Talk</td>
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<tr>
<td>16:30 - 18:00</td>
<td>Poster Viewing</td>
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<tr>
<td>18:00-20:30</td>
<td>Free Night</td>
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### Tuesday, July 24, 2018

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:30-9:00</td>
<td>Breakfast/Registration</td>
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<tr>
<td>9:00-9:45</td>
<td>Session Tu1 (Chair: Allan Willner)</td>
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<tr>
<td>9:00 - 9:45</td>
<td>Pallab Bhattacharya, University of Michigan; <em>Optoelectronic Devices on (001) Silicon with III-Nitride Heterostructure Nanowire Arrays</em></td>
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<td>9:45 - 10:30</td>
<td>Susumu Noda, Kyoto University</td>
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<td>10:30-11:00</td>
<td>Tea &amp; Coffee Break</td>
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<tr>
<td>11:00-12:30</td>
<td>Session Tu2 (Chair: Pallab Bhattacharya)</td>
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<td>11:00 - 11:45</td>
<td>Alan Willner, University of Southern California; <em>High-Capacity Communications Using Multiplexing of Multiple Orthogonal Orbital-Angular-Momentum Beams</em></td>
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<tr>
<td>11:45 - 12:30</td>
<td>Yi Luo, Tsinghua University; <em>Thin film growth by a novel epitaxial growth method</em></td>
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</table>
12:30-13:30  Lunch (SDH Atrium)
13:30-15:00  Session Tu3 (Chair: Chennupati Jagadish)
  • 13:30 - 14:00  Andrei Faraon, California Institute of Technology
  • 14:00 - 14:30  Wei Wu, University of Southern California; Color reflective display enabled by optical metastructures
  • 14:30 - 15:00  Abderrahim Ramdane, CNRS / Centre for Nanosciences and Nanotechnologies
15:00-15:30  Tea & Coffee Break
15:30-17:30  Session Tu4 Panel Discussion I (Chair: James Harris)
  • 15:30 - 16:00  Fred Kish, Infinera; Integrated optoelectronic circuits
  • 16:00 - 16:30  Cedric Lam, Google; Optical Fiber Infrastructure for 5G Wireless Networks
  • 16:30 - 17:00  Jianjun Yu, ZTETX Inc.; What is the best modulation format for data center
  • 17:00 - 17:30  Michael Eggleston, Bell Labs
  • 17:30 - 18:00  Panel Discussion
18:00-18:30  Walk to The Faculty Club
18:30-20:30  Dinner (The Faculty Club)

Wednesday, July 25, 2018
12:00-22:00  Excursion
  • 12:00 - 14:00  Board bus to Castello di Amorosa
  • 14:00 - 16:30  Castello di Amorosa: Tour and wine tasting
  • 16:30 - 17:00  Bus ride to Hans Fahden
  • 17:00 - 20:30  Hans Fahden: Reception and dinner
  • 20:30 - 22:00  Board bus for Berkeley!

Thursday, July 26 (Sutardja Dai Hall)
8:30-9:00  Breakfast/Registration
9:00-10:30  Session Th1 (Chair: Yi Luo)
  • 9:00 - 9:45  Fumio Koyama, Tokyo Institute of Technology; VCSEL photonics for optical sensing
  • 9:45 - 10:30  Connie Chang-Hasnain, University of California, Berkeley; Wavelength-Swept and High Power VCSELs
10:30-11:00  Tea & Coffee Break
11:00-12:30  Session Th2 (Chair: Fumio Koyama)
  • 11:00 - 11:45  James Harris, Stanford University; LIDARs—Wavelength tradeoffs with VCSELs and SPADs
  • 11:45 - 12:30  Jason Eichenholz, Luminar; The Lasers that Power the Vehicles of Tomorrow
12:30-13:30 Lunch (Sutardja Dai Hall)
13:30-15:00 Session Th3 (Chair: Yidong Huang)
   • 13:30 - 14:00 Hao-Chun Kuo, National Chiao Tung University; Recent progress of GaN based microled and VCSEL
   • 14:00 - 14:30 Hongyan Fu, Xiamen University; Novel devices enabled 3D sensing technologies
   • 14:30 - 15:00 Zhangyuan Chen, Peking University; High speed optical interconnects for DCs and supercomputers
15:00-15:30 Tea & Coffee Break
15:30-16:00 Session Th4 Panel Discussion II (Chair: Eli Yablonovitch)
   • 16:00 - 16:30 Kevin Lascola, Thorlabs, Inc.; OCT
   • 16:30 - 17:00 Babu Dayal Padullaparthi, Research Gate; VCSEL
   • 17:00 - 17:30 Wilson Ko, OURS Technology Inc.; Lidar, the New Eye of the Machine
   • 17:30 - 18:00 Discussion
18:00-18:30 Walk to The Faculty Club
18:30-20:30 Dinner (The Faculty Club)

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**Friday, July 27, 2018 (Sutardja Dai Hall)**

8:30-9:00 Breakfast/Registration
9:00-10:30 Session Fr1 (Chair: Siyuan Yu)
   • 9:00 - 9:45 Eli Yablonovitch, University of California, Berkeley; Reincarnation of Analog Computing
   • 9:45 - 10:30 Richard Penty, University of Cambridge; Energy efficient high port count photonic switches
10:30-11:00 Tea & Coffee Break
11:00-12:30 Session Fr2 (Chair: Eli Yablonovitch)
   • 11:00 - 11:45 Yidong Huang, Tsinghua University; On-chip free electron light source
   • 11:45 - 12:30 Vlad Shalaev and Alexandra Boltasseva, Purdue University; Catching Light Rays with Metamaterials
12:30-13:30 Lunch (Sutardja Dai Hall)
13:30-16:00 Session Fr3 (Chair: Zhangyuan Chen)
   • 13:30 - 14:00 Seth Bank, University of Texas, Austin; Low-noise staircase and conventional III-V avalanche photodetectors
   • 14:00 - 14:30 Piotr Perlin, Polish Academy of Sciences; Nitride Semiconductors Based Optoelectronics
   • 14:30 - 15:00 Pei-Cheng Ku, University of Michigan; Semiconductor Nanopillar LEDs
15:00-15:30    Tea & Coffee Break
15:30-18:00    Poster Session 3 (Chair: Hao-Chung Kuo)
  • 15:30 - 16:30 Poster Summary Talks
  • 16:30 - 18:00 Poster Viewing
18:00-18:30    Transport to Hotel Shattuck Plaza
18:30-22:00    Award Banquet, Crystal Ballroom, Hotel Shattuck Plaza