

## Agenda for the 7<sup>th</sup> SICAST, 2019

| <b>Sunday, November 17<sup>th</sup></b> |  |  |
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| <b>09:00-20:00</b>                      | <b>Registration</b>  | <b>Location: Lia Charlton Hotel Shenzhen</b> |
| <b>Monday, November 18<sup>th</sup></b> |  |  |
|   |  | <b>Location: Shenzhen talent Park</b>        |
| <b>09:00-09:45</b>                      | <b>Opening Ceremony</b>  |  |
|   | <b>Chairs: Shenggang Liu<br/>Manfred Thumm<br/>Weixin Xie</b>  |  |
|   | <b>Opening Speech</b>  | <b>Manfred Thumm</b>                         |
|   | <b>Speech, Director of CAS</b>   | <b>Tao Xu</b>                                |
|   | <b>Speech, Mayor of Shenzhen City</b>  |  |
|   | <b>Speech, President of Shenzhen University</b>  |  |
|   | <b>Speech, Founder of SICAST</b>   | <b>Shenggang Liu</b>                         |
| <b>09:45-10:00</b>                      | <b>Photos and Coffee Break</b>   |  |
| <b>Session P-1</b>                      |  | <b>Chair: Manfred Thumm</b>                  |
| <b>PL-1</b>                             | <b>THz Near-Field Microscopy</b>   |  |
| <b>10:00-11:00</b>                      | Fritz Keilmann<br>Soft Condensed Matter Group, Ludwig-Maximilians-Universität, München, Germany                        |  |
| <b>PL-2</b>                             | <b>Evolution of Metamaterials - From Fixed Functions to Intelligent Controls of Electromagnetic Waves</b>              |  |
| <b>11:00-12:00</b>                      | Tiejun Cui<br>State Key Laboratory of Millimeter Waves, Southeast University, Nanjing, China                           |  |
| <b>12:00-14:00</b>                      | <b>Lunch</b>   |  |
| <b>Session P-2</b>                      |  | <b>Chair: Shenggang Liu</b>                  |
| <b>PL-3</b>                             | <b>High-Frequency Gyrotrons for DNP-NMR Spectroscopy</b>   |  |
| <b>14:00-15:00</b>                      | Monica Blank<br>Communications and Power Industries, Palo Alto, CA, USA  |  |
| <b>PL-4</b>                             | <b>Gyrotrons – Natural Sources of High-Power High-Order Orbital Angular Momentum Millimeter-Wave Beams</b>             |  |
| <b>15:00-16:00</b>                      | Manfred Thumm<br>Karlsruhe Institute of Technology (KIT), IHM and IHE, Karlsruhe, Germany                              |  |
| <b>16:00-16:10</b>                      | <b>Coffee Break</b>  |  |
| <b>Session P-3</b>                      |  | <b>Chair: Tiejun Cui</b>                     |
| <b>PL-5</b>                             | <b>Terahertz Photonics of Multiphase Thermodynamic Systems: From Gas to Liquid</b>                                     |  |
| <b>16:10-17:10</b>                      | Alexander Shkurinov<br>Department of Physics and International Laser Center, Lomonosov Moscow State University, Russia |  |
| <b>17:10-21:00</b>                      | <b>Banquet</b>   | <b>Location: Lia Charlton Hotel Shenzhen</b> |

| <b>Tuesday, November 19<sup>th</sup></b> |  | <b>Location:Shenzhen University</b> |
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|  | <b>Session P-4</b>   | <b>Chair: Alexander Shkurinov</b>   |
| <b>PL-6</b><br><b>08:30-9:30</b>         | <b>Metamorphic HEMT Technology for Millimeter-Wave and Sub-Millimeter-Wave Frequencies: Devices, Circuits, and Modules for Communication and Sensing</b><br>Michael Schlechtweg<br>Fraunhofer Institute for Applied Solid State Physics (IAF), Freiburg, Germany |                                     |
| <b>PL-7</b><br><b>09:30-10:30</b>        | <b>Terahertz-Driven Electron Emission: Physics and Applications</b><br>Peter Uhd Jepsen<br>Department of Photonics Engineering, Technical University of Denmark, Kongens Lyngby, Denmark   |                                     |
| <b>10:30-10:40</b>                       | <b>Coffee Break</b>  |                                     |
|  | <b>Session P-5</b>   | <b>Chair: Biaobin Jin</b>           |
| <b>PL-8</b><br><b>10:40-11:40</b>        | <b>Metasurfaces for Controlling Terahertz Waves</b><br>Lei Zhou<br>Physics Department, Fudan University, Shanghai, China   |                                     |
| <b>11:40-14:00</b>                       | <b>Lunch</b>   |                                     |
|  | <b>Session K-1</b>   | <b>Chair: Lei Zhou</b>              |
| <b>KN-1</b><br><b>14:00-14:30</b>        | <b>Tunable and Programmable Terahertz Metamaterials based on Liquid Crystal and Vanadium Dioxide</b><br>Biao-Bing Jin<br>Research Institute of Superconductor Electronics, School of Electronics Science and Engineering, Nanjing University, Nanjing, China     |                                     |
| <b>KN-2</b><br><b>14:30-15:00</b>        | <b>Generation of Terahertz Vortex without any Need of Manipulation in the Terahertz Region</b><br>Shixiang Xu<br>College of Physics and Optoelectronic Engineering, Shenzhen University, Guangdong, China  |                                     |
| <b>KN-3</b><br><b>15:00-15:30</b>        | <b>THz Metasurface for Phase/Polarization Manipulation and Imaging</b><br>Yiming Zhu<br>University of Shanghai for Science and Technology, Shanghai, China.  |                                     |
| <b>KN-4</b><br><b>15:30-16:00</b>        | <b>2D Materials-Based All-Optical Modulation Technology</b><br>Han Zhang<br>Institute of Microscale Optoelectronics, Shenzhen University, Shenzhen, China.   |                                     |
| <b>16:00-16:10</b>                       | <b>Coffee Break</b>  |                                     |
|  | <b>SessionK-2</b>  | <b>Chair: Franz X. Kärtner</b>      |
| <b>KN-5</b><br><b>16:10-16:40</b>        | <b>Research on Surface Plasmon Polaritons Excitation by Free Electron Beam</b><br>Min Hu<br>Terahertz Research Center, University of Electronic Science and Technology of China, Chengdu, China  |                                     |
| <b>KN-6</b><br><b>16:40-17:10</b>        | <b>Optical Buffer in Photonic Crystal Slow Waveguide</b><br>Zhengbiao Ouyang<br>College of Electronics and Information Engineering, Shenzhen University,   |                                     |

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|   | Shenzhen , China  |
| <b>KN-7</b><br><b>17:10-17:40</b>           | <b>H-Type THz Photoconductive Antenna with All-Dielectric Nanostructures</b><br>Jianqiang Gu<br>Center for Terahertz Waves and College of Precision Instrument and Optoelectronics Engineering, Tianjin University, Tianjin, China                          |
| <b>KN-8</b><br><b>17:40-18:10</b>           | <b>Time-Domain Metasurfaces for Nonlinear Harmonic Manipulation</b><br>Qiang Cheng<br>State Key Laboratory of Millimeter Waves, Southeast University, Nanjing, China  |
| <b>KN-9</b><br><b>18:10-18:40</b>           | <b>Functional Materials and their Applications in Terahertz Functional Devices</b><br>Fei Fan<br>Institute of Modern Optics, Nankai University, Tianjin, China  |
| <b>18:40-20:00</b>                          | <b>Dinner</b>   |
| <b>Wednesday , November 20<sup>th</sup></b> |   |
| <b>Location:Shenzhen University</b>         |   |
|   | <b>Session P-6</b> <span style="float: right;"><b>Chair: Zhengbiao Ouyang</b></span>  |
| <b>PL-9</b><br><b>08:30-9:30</b>            | <b>THz Accelerator based Electron and X-Ray Sources</b><br>Franz X. Kärtner<br>Center for Free-Electron Laser Science, Deutsches Elektronen-Synchrotron DESY, Hamburg, Germany  |
| <b>PL-10</b><br><b>09:30-10:30</b>          | <b>An Introduction to THz Astronomy</b><br>Keping Qiu<br>School of Astronomy and Space Science, Nanjing University, Nanjing, China  |
| <b>10:30-10:40</b>                          | <b>Coffee Break</b>   |
|   | <b>Session P-7</b> <span style="float: right;"><b>Chair: Peter Uhd Jepsen</b></span>  |
| <b>PL-11</b><br><b>10:40-11:40</b>          | <b>Research Activities on Terahertz Science and Technology in Research Center for Development of Far-Infrared Region, University of Fukui</b><br>Masahiko Tani<br>Research Center for Development of Far-Infrared Region, University of Fukui, Fukui, Japan |
| <b>11:40-14:00</b>                          | <b>Lunch</b>  |
|   | <b>Session K-3</b> <span style="float: right;"><b>Chair: Masahiko Tani</b></span>   |
| <b>KN-10</b><br><b>14:00-14:30</b>          | <b>Intelligent Reflecting Surface Enhanced 6G Terahertz Communication Systems</b><br>Zhi Chen<br>University of Electronic Science and Technology of China, Chengdu, China   |
| <b>KN-11</b><br><b>14:30-15:00</b>          | <b>Quantum Cascade Lasers Emission around the Reststrahlen Region of GaAs and InP Material System</b><br>Junqi Liu<br>Key Laboratory of Semiconductor Materials Science, Institute of Semiconductors, Chinese Academy of Sciences, Beijing, China           |
|   | <b>Session K-4</b> <span style="float: right;"><b>Chair: Fritz Keilmann</b></span>  |
| <b>KN-12</b>                                | <b>Terahertz Frequency Combs based on Quantum Cascade Lasers</b>  |

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| <b>15:00-15:30</b>   | Hua Li<br>Key Laboratory of Terahertz Solid State Technology, Shanghai Institute of<br>Microsystem and Information Technology, CAS, Shanghai, China                                      |
| <b>KN-13</b><br><b>15:30-16:00</b>   | <b>Spintronic Terahertz Emission with Manipulated Polarization (STEMP)</b><br>Xiaojun Wu<br>School of Electronic and Information Engineering, Beihang University, Beijing,<br>China      |
| <b>16:00-16:10</b>   | <b>Coffee Break</b>  |
| <b>Session P-8</b> <span style="float: right;"><b>Chair: Monica Blank</b></span> |  |
| <b>PL-12</b><br><b>16:10-17:10</b>   | <b>Terahertz Communications at 300 GHz: Devices, Packages and System</b><br>Ho-Jin Song<br>Pohang University of Science and Technology, Pohang, Republic of Korea                        |
| <b>PL-13</b><br><b>17:10-18:10</b>   | <b>The Development of Broadband Millimeter-Wave and Terahertz Gyro-TWTs</b><br>Wenlong He<br>College of Electronics and Information Engineering, Shenshen University,<br>Shenzhen, China |
| <b>18:10-20:00</b>   | <b>Dinner</b>  |
| <b>Thursday, November 21<sup>st</sup></b>  |  |
| <b>9:00</b>  | <b>Leave</b>   |