

2025 IEEE Summer School and Workshop on Photonics Automation

Date: July 7, 2025

Location: CUNY ASRC Auditorium

PHOTONICS INITIATIVE
ADVANCED SCIENCE RESEARCH CENTER



| Chair | Time & Type | Speaker & Affiliation | Title |
|-----------------|---------------------------------|---|--|
| | 09:00–09:10 | Viktoriia Rutckaia | Introductory comments |
| Prachi Thureja | 09:10–09:40 Keynote 1 | Prof. Gabriele Grosso <i>ASRC CUNY</i> | Photoluminescence spectroscopy automation for quantum optoelectronics |
| | 09:40–10:00 Invited 1 | Dr. Matthew C. Strasbourg <i>Columbia University</i> | Practical Python in the lab: high-throughput optical spectroscopy of quantum materials |
| | 10:00–10:20 Invited 2 | Dr. Deepankur Thureja <i>Harvard University</i> | Disentangling weakly coupled modes via global fitting of optical spectra |
| | 10:20–10:40 | Coffee Break | |
| Lin Jing | 10:40–11:10 Keynote 2 | Prof. Haogang Cai <i>NYU</i> | Inverse design of meta-optics using Python |
| | 11:10–11:40 Keynote 3 | Prof. Euclides Almeida <i>Queens College CUNY</i> | Engineering nonlinear metasurfaces for light generation and control |
| | 11:40–12:00 Invited 3 | Sarah Jane Baker <i>ASRC CUNY</i> | Automating data collection using Python |
| | 12:00–13:30 | Lunch Break, Lab Tours | |
| Giacomo Venturi | 13:30–14:00 Keynote 4 | Prof. Eileen Otte <i>University of Rochester</i> | Beyond the Beam: The Potential of Light's Structure |
| | 14:00–14:20 Invited 4 | Dr. Michael de Oliveira <i>ASRC CUNY</i> | Shaping Light on Demand (with a Few Lines of Code) |
| | 14:20–14:50 Keynote 5 | Prof. Samantha Roberts <i>ASRC CUNY</i> | Generative AI for research |
| | 14:50–15:10 Invited 5 | Dr. Pratap Chandra Adak <i>CCNY CUNY</i> | Magnon-mediated exciton-exciton interactions in a van der Waals antiferromagnet |
| | 15:10–15:30 | Coffee Break | |
| Vika Rutckaia | 15:30–15:45 Industry Session | James Scholtz Vyir Tech | – |
| | 15:45–16:00 Contributed 1 | Joseph Demarest Vyir Tech | – |
| | 16:00–16:15 Contributed 2 | Sofia Sechi University of Cagliari | Automation of a mid-infrared pump-probe spectroscopy setup |
| | 16:15–16:20 | Viktoriia Rutckaia | Closing remarks |
| | 16:20–17:00 | Laptop check for participants joining hands-on sessions (July 8-10) | |

