# 2022-2023 Big Quantum Bio meetings

## Sept. 2022

- 1 Iulia Brumboiu (Nicolaus Copernicus Uni., Poland): *Theoretical X-ray spectroscopy for organic materials characterization*
- **8** Nicholas Kotov (Uni. of Michigan, US): *The chiral nano particles and their complexes with proteins*
- **15** Can Xie (Hefei Institutes of Physical Science, China): *Searching for unity in the diversity of animal magnetoreception: From biology to quantum mechanics and back*
- **22** Kirstin Gutekunst (Uni. of Kassel, Germany): *Photosynthetic hydrogen production with cyanobacteria*
- **29** Giuseppe Luca Celardo (Uni. of Florence, Italy): *How size can help coherence: large scale simulations of biological complexes*

#### Oct.

- **6** Kasturi Saha (Indian Institute of Technology Bombay, India): *Applications of diamond microscope for biological magnetic field imaging*
- **13** Nirosha Murugan (Algoma Uni., Canada): *Exploring parallel patterns of quantum physics in cancer, regenerative medicine, and neuroscience*
- **20** Grish Agarwal (Texas A & M Uni., US): Subshot noise limited Brillouin bio-imaging with quantum light
- **27** Iannis Kominis (Uni. of Crete, Greece): *Quantum vision: probing human vision with quantum optical tools*

#### Nov.

- **3** Aparajita Singha (Max Planck Institute for Solid State Research, Germany): *Non-invasive* sensing and coherent control of surface-supported spin systems
- **10** Eva-Mari Aro (Uni. of Turku, Finland): *Photoprotection mechanisms of photosynthetic light reactions*
- **17** David Waldeck (Uni. of Pittsburgh, US): *Is there a connection between Chiral Induced Spin Selectivity and Homochirality in Biology*

#### Dec.

- **1** Zoya Leonenko (Uni. of Waterloo, Canada): *Molecular mechanisms of neurodegeneration, Li and quantum neuroscience*
- **8** Wonjin Choi (Lawrence Livermore National Laboratory, US): *Terahertz circular dichroism spectroscopy and chiral phonons in biomaterials*
- 15 Romana Schirhagl (Uni. of Groningen, Netherlands): Quantum sensing in living cells

## Jan. 2023

- 5 Town Hall Meeting
- **12** Barbara Goldstein (National Institute of Standards and Technology, US): *Quantum standards: from the physical to the geopolitical, and NIST on a Chip: revolutionizing metrology through quantum standards*
- **19** Fabrisia Ambrosio (Harvard Uni., US): *Towards a quantum biological mechanism underlying muscle stem cell regenerative potential*
- 26 Lucia Caspani (Uni. of Strathclyde, UK): Towards quantum-enhanced nonlinear imaging

### Feb.

- 2 Alizée Malnoë (Umea Uni., Sweden): *Molecular mechanisms of photoprotection in plants* 9 Hartmut Neven (Google, US): *How to use quantum resources to give artificial intelligence novel abilities*
- **16** Susannah Bourne-Worster (Uni. of Bristol, UK): *Hosting chromophores: how antenna proteins promote light-harvesting*
- **23** Keisuke Goda (Uni. of Tokyo, Japan): *Controlling strong vibrational coupling toward quantum bioengineering*