

# Joint Annual Meeting of the SWISS PHYSICAL SOCIETY AUSTRIAN PHYSICAL SOCIETY

## 26 - 30 August 2019, Universität Zürich

in collaboration with

ASSOCIATION MANEP, NCCR QSIT AND SGN



Universität  
Zürich<sup>UZH</sup>

### Sessions

- Applied Physics and Plasma Physics
- Atomic Physics & Quantum Optics
- Biophysics, Medical Physics and Soft Matter
- Condensed Matter Physics
- Earth, Atmosphere and Environmental Physics
- History and Philosophy of Physics
- MaNEP: Correlations and topology in quantum matter \*
- Nuclear, Particle- & Astrophysics
- Quantum and Artificial Intelligence: New Jobs for Physicists in Emergent Industries
- Quantum Beam Science: bio, materials and fundamental physics with neutrons and X-rays \*\*\*
- Quantum Science and Technology \*\*
- Skyrmions in magnetic materials \*
- Surfaces, Interfaces and Thin Films
- Poster Session

\* organised in collaboration with Association MaNEP, \*\* organized in collaboration with NCCR QSIT, \*\*\* organized in collaboration with the Swiss Society for Neutron Science (SGN)

### Pre-Conference Workshops

- Machine Learning for Experimental Quantum Physics
- Programming a Quantum Computer with Examples in Quantum Machine Learning

### Plenary Speakers

- **Claudia Draxl, Humboldt-Universität Berlin:**  
*Artificial intelligence in materials science - hype or revolution?*
- **Anna Fontcuberta i Morral, EPFL:**  
*Compound semiconductor nanowires synthesis and sustainability aspects*
- **Edda Gschwendtner, CERN**  
*First electron acceleration in AWAKE, the proton driven plasma wake-field acceleration experiment*
- **Ravid Helled, Universität Zürich**  
*Understanding Giant Planets*
- **Patrick Maletinsky, Universität Basel**  
*Probing nanoscale magnetism using single spin magnetometry*
- **Greta R. Patzke, Universität Zürich**  
*Economic Materials Design for Clean Energy*
- **Olaf Reimer, Universität Innsbruck**  
*Galactic High-Energy Particle Accelerators*
- **Heike Riel, IBM Rüschlikon**  
*The Future of Computing*
- **Monika Ritsch-Marte, Medizinische Universität Innsbruck**  
*Synthetic holography with spatial light modulators for biophotonics applications*

### Public Lecture

- **Rainer Blatt, Universität Innsbruck**  
*The Quantum Way of Doing Computations (New Technologies for the Information Age)*

### Additional Events

- General Assemblies and Award Ceremony
- Scientific Equipment and Book Exhibition
- Conference Dinner

ABSTRACT SUBMISSION  
30 APRIL 2019

DEADLINES

REGISTRATION & PAYMENT  
1 AUGUST 2019

More information: [www.sps.ch](http://www.sps.ch)