



## Photon Diagnostics

Guest Editor:

**Dr. Pavle N. Juranić**

Paul Scherrer Institut, Villigen,  
Switzerland

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### Message from the Guest Editor

Photon diagnostics is a field that bridges the gap between the machines (like particle accelerators) used to generate photon beams and the experimenters using light for research. The devices and methods employed in photon diagnostics serve two purposes: firstly, they provide information to the machine operators to improve and monitor the performance of their setups; secondly, they provide information to the experimenters about the properties of the photons they use in the experiments for better data analysis and easier setups and are often an integral part in the data-taking process. The field of photon diagnostics is large and growing. Efforts are being made to attain both non-intrusive measurements for online, real-time feedback and better intrusive measurements for improved setups of machines or experiments. The most commonly measured beam properties are spectra, energy, position, arrival time of photons for pump-probe experiments, photon pulse lengths, and transverse profiles. The field also uses the devices to set up new methods for the improvement of operations or experimental data-taking based on machine learning and algorithm development.





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**Prof. Dr. Klaus-Dieter Liss**

School of Mechanical, Materials,  
Mechatronic and Biomedical  
Engineering, University of  
Wollongong, Wollongong 2522,  
Australia

## Message from the Editor-in-Chief

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*Quantum Beam Science* Editorial  
Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

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