

# Title: 14 pt, Times New Roman: A template for SPW 2024 abstracts

First<sup>1</sup>, Second<sup>2</sup>, Third<sup>1</sup> Author, etc. (Times New Roman, 9 pt)

<sup>1</sup>Affiliation: Times New Roman, 8pt, italicized, Institute, city/town, country

Please use Times New Roman, 10 pt. **One page, including references.** Please upload a finalized pdf copy of your abstract at [www.SPW2024.org](http://www.SPW2024.org). Of course, you can create your abstract in latex. However, in this case please compile it to a 1-page pdf.

SPW 2024 (Fig. 1) is the eleventh and latest instalment in a series of workshops on single-photon technologies and applications. Single-photon technologies are vital to applications such as quantum cryptography, quantum information processing, quantum imaging, and quantum metrology. Fields such as astrophysics, nuclear physics, and biology also benefit from developments in single-photon technologies.

SPW 2024 is intended to bring together a broad range of people with interests in single-photon sources, single-photon detectors, photon entanglement, and their incorporation into scientific and industrial tools [1]. Researchers from universities, industry, and government will report on the latest developments in single-photon devices and methods with a view toward improved performance and new application areas. It will be an exciting opportunity for those interested in single-photon technologies to learn about the state of the art and to foster continuing partnerships with others seeking to advance the capabilities of such technologies [2].



Fig. 1 Figure caption: Times New Roman, 8 pt. The Single Photon workshop 2024 will be held 18th-22nd November 2024 in sunny Edinburgh in Bonnie Scotland.

Table 1: Workshop topics

Single Photon Detectors	Single Photon Sources	Applications	Metrology
Single-photon avalanche diodes (SPADs and SiPM)	Spontaneous parametric down-conversion and four-wave-mixing	Quantum communications and security	Methods for characterizing single-photon detectors and sources
Superconducting single photon detectors	Molecule-based emitters	Optical quantum-state generation and photon manipulation	Quantum Sensing
Single photon detector arrays	Defect emitters in diamond and 2D materials	Quantum correlation and entanglement	Weak measurements
Photon-number-resolving detectors	On-demand single-photon sources	Quantum computing	Novel measurement schemes
Integrated single photon detectors	Integrated single-photon sources	Quantum random number generators	
Novel single photon detectors	Generation, collection and manipulation of non classical states of light with discrete photon numbers	Single-photon imaging and ranging (LIDAR) and quantum-enhanced imaging	
	Quantum dot emitters	Integrated quantum photonics	
		Spectroscopy	
		Biology/Chemistry	
		Astrophysics	

## References

- [1] See previous SPW instalments.
- [2] List of all the topics is available on SPW 2024 website.