Title: 14 pt, Times New Roman: A template for SPW2019 abstracts

**First1, Second2, Third1 Author, etc. (Times New Roman, 9 pt)**

*1Affiliation: 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 to the easychair link available on the workshop website (<https://spw2019.polimi.it/>). Of course, you can create your abstract in latex. However, in this case please compile it to a 1-page pdf.

SPW 2019 (Fig. 1) is the nineth and latest installment 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 2019 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 2019 will be held in the week from October 21st 2019 through October 25th 2019.

**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 | NV centers | Optical quantum-state generation and photon manipulation | Quantum Sensing |
| Single photon detector arrays | Quantum Dots | 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 | Imaging and ranging (LIDAR) |  |
|  |  | Integrated quantum photonics |  |
|  |  | Spectroscopy |  |
|  |  | Biology/Chemistry |  |
|  |  | Astrophysics |  |

**References**

1. See previous SPW installments.
2. List of all the topics is available on SPW 2019 website.