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Photonic State Tomography: Methods and Applications

Guest Editor:

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Deadline for manuscript submissions:
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Message from the Guest Editor

State tomography is becoming a crucial component of the quantum engineering toolbox since it facilitates validation and certification of quantum technology. In particular, photons are widely exploited in quantum protocols because information can be encoded by occupying different degrees of freedom, especially: polarization, spectral, spatial, and temporal modes. As a result, there are numerous techniques that can be used to determine the quantum state of light.

For this Special Issue, you are invited to submit manuscripts that provide novel results on photonic state tomography, both theoretical and experimental. We expect papers that present theoretical frameworks formulated on the grounds of mathematical physics. Also, we encourage the submission of feasibility studies that investigate the efficiency of selected models by numerical methods. Finally, we invite experimental papers that fall into a wider scope of quantum optics, but photonic tomography is implemented as a part of the research. In every case, it will be welcome if the contribution involves state tomography of entangled photons.