Spatial Light Modulators: Devices and Applications

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Spatial light modulators (SLMs) are opto-electronic devices that modulate amplitude, phase, and polarization of light waves in space and in time. Well-established technologies such as liquid-crystal devices and digital micro-mirror devices are currently used in many different applications requiring these capabilities. Newer devices with higher resolution, higher speed, or extended operational spectral ranges have led to progress in different areas of optics and photonics.

This special section of Optical Engineering aims at capturing the most recent advancements in the area of spatial light modulators. Relevant topics for this issue include advances in liquid crystal and digital micro-mirror based SLM fabrication technology; techniques for the characterization, modelling, and compensation of the SLM optical modulation properties; and the application of SLMs in areas which include but are not limited to the following subcategories:

- Wavefront sensing and adaptive optics
- Customized light beam shaping
- Pulse shaping
- Optical metrology techniques
- Reconfigurable interconnects
- Wavelength selective switches
- Beam-steering devices
- Optical communications
- Quantum information processing
- Quantum optical computing;
- Holographic displays
- Displays for augmented and virtual reality
- Holographic microscopy
- Optical trapping and tweezing
- Computational imaging
- Holographic material laser fabrication
- Massless lithography and 3-D printing

This call for papers is open to all professionals and academics in fields related to SLM technology or who are users of these devices. Comprehensive review papers in the areas listed above are also welcome. Authors interested in submitting a review paper to this special section should contact the guest editors with a brief proposal on the paper. Review proposals should be submitted by 15 May 2019 to allow time for their consideration.

All submissions will be peer-reviewed. Peer review will start immediately upon manuscript submission, with the goal of making a first decision within six weeks of manuscript submission. Special sections are opened online once a minimum of four papers have been accepted. Each paper is published as soon as the copyedited and typeset proofs are approved by the author. Submissions should follow the guidelines of Optical Engineering. Manuscripts should be submitted online at https://oe.msubmit.net.

Submissions due 15 September 2019.