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Optical Sensors, Pushing the Limits

Guest Editor:

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Deadline for manuscript submissions:

closed (30 November 2022)

Message from the Guest Editor

Dear Colleagues,

This Special Issue aims to highlight recent advances in laser technology that can be applied to the sensing of magnetic and electric, position (down to femtometer), gas pressure, flow, rotation, and acceleration. Of particular interest is the use of frequency combs applied to sensing, and active laser sensing where the measurement is performed inside a laser cavity. Theoretical and experimental papers are invited that cover aspects of classical and quantum signal enhancement and/or noise reduction. This includes, for instance, response enhancement near "exceptional points". Another aspect to cover is noise reduction by squeezing techniques. Desirable improvements include (1) enhanced sensitivity, dynamic range, and shorter response time; (2) reduced noise; (3) compactness, reduced weight, and power consumption; and (4) no dead band. Compactness and reduced weight call for the development of fiber laser and microresonator implementation. For further information regarding the topics, please visit: mdpi.com/journal/sensors/special issues/ospl.

Prof. Dr. Jean-Claude Diels Guest Editor













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Message from the Editor-in-Chief

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