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Non-diffractive Beams for the State of the Art Applications

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Deadline for manuscript submissions: closed (31 December 2022)

Message from the Guest Editors

Dear colleagues,

It is my pleasure to invite you to submit your highly valued work to a Special Issue of the Journal Micromachines on "Non-diffractive Beams for State-of-the-Art Applications." In acoustics, Bessel beams are generally used in applications such as ultrasound imaging systems. Their extended depth of focus and slender beam-width provide a precise scanning of the transmitted beam, whereas their self-recovering properties contribute toward extraordinary robustness to tissue scattering. Moreover, its diffractionfree feature provides perpetual deep imaging resolution. Recently, Bessel beams have gathered a lot of interest because of their distinctive properties for particle trapping; particle manipulation; material processing; tight focusing; and free-space, long-distance, self-healing beams, among others. This Special Issue will cover recent developments and the latest advances in the generation and utilization of these beams in distinctive applications. Original work, letters and review papers based on theoretical and experimental data are welcomes in this Special Issue.









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Message from the Editor-in-Chief

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