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Title:	Weighted mutation assisted genetic algorithm focuses light tightly through scattering media
Authors:	Kumar, Amit (/jspui/browse?type=author&value=Kumar%2C+Amit) Thakur, Sarvesh (/jspui/browse?type=author&value=Thakur%2C+Sarvesh) Biswas, S.K. (/jspui/browse?type=author&value=Biswas%2C+S.K.)
Keywords:	Weighted Mutation Genetic Algorithm Light Tightly
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Citation:	Workshop on Recent Advances in Photonics WRAP 2022, 9758238.
Abstract:	We introduced weighted mutation in genetic algorithm (GA) to focus light through scattering media using a binary ferro-electric liquid crystal spatial-light modulator (FLC-SLM). FLC-SLMs are cost-effective compared to other light modulators, like digital micro-mirror devices (DMDs) and typical phase-only SLMs. Our proposed algorithm tightly focused the light through scattering medium without increasing the computation cost and time. Both simulation and experimental results show that weighted mutation in GA can be used to get more tightly focused spot and better signal to noise ratio.
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