Analysis of Gerchberg-Saxton Algorithm

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The project focuses on analysis of Gerchberg-Saxton algorithm, which is performed in the Fresnel domain. The established setup consists of two intensity measurements of a photon probability distribution. It can be described how well the algorithm works by changing various parameters e.g. initial's photon distribution shape or the distance between two planes where measurements took place. Valuable characteristic of the algorithm was obtained and explained according to the change of curvature of a Gaussian beam.

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