

Artificial Intelligence-assisted study of light diffraction: from observation to prediction

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Abstract

This study presents new approaches to the phenomenon of light diffraction, combining traditional methods of physical investigation with modern Artificial Intelligence (AI) tools. The integration of AI in the study of wave optics allows an interdisciplinary approach that contributes to the development of STEM skills, stimulates scientific curiosity and gives the student the possibility to visualize, simulate and interpret complex phenomena with the help of digital technologies.

Keywords: Wave Optics, Light Diffraction, Artificial Intelligence.

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