4th World Conference on Physics Education

EMBRACING CHANGES TOGETHER

Contribution ID: **193** Type: **Poster**

Continuous transition from Fraunhofer and Fresnel diffraction regimes with a triangular slit

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We introduce an economical quantitative optical experiment aimed at acquainting students with the near- and far-field diffraction regimes, as defined by the Fresnel-Kirkhoff and Fraunhofer models, respectively. This experiment demonstrates the transition using a triangular slit. It incorporates the use of cost-effective, easily accessible materials, along with a basic camera, typical of those available in common smartphones. The experimental setup was tested on graduate students in mathematics and physics who are prospective high school teachers.

How would you like to present your contribution?

Live in Kraków (time slot to be allotted based on the programme)

Target education level

University

Category

Formal Education

Author: SALMOIRAGHI, Alessandro (University of Trento)

Co-authors: GRATTON, Luigi (University of Trento); DI MAURO, Marco (University of Trento); ONORATO, Pasquale (University of Trento); OSS, Stefano (University of Trento)

Presenter: SALMOIRAGHI, Alessandro (University of Trento)

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