UCLA Department of Physics & Astronomy

COLLOQUIUM

Thursday, May 26, 2022 at 4 p.m.
1-434 PAB

Diffractive Optical Networks & Computational Imaging Without a Computer

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We will discuss diffractive optical networks designed by deep learning to all-optically implement various complex functions as the input light diffracts through spatially-engineered surfaces. These diffractive processors complete their computational task at the speed of light propagation through thin, passive optical layers and will find various applications in e.g., all-optical image analysis, feature detection, object classification, computational imaging and sensing, also enabling task-specific camera designs and new optical components.

Undergraduates Welcome!