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Using Digital Cameras in the Instructional Optics Lab EVERETT

RAMER, University of Delaware — Digital cameras, stand-alone or smartphonebased, are useful tools for measuring and recording results in the instructional optics laboratory. With USB/Wi-Fi interfaces and down-loadable application software, students can use digital cameras to conduct optical measurements using their own laptop computers. This poster gives examples of using digital cameras to explore the spectral properties of light with the Project STAR spectrometer and a homemade grating monochromator; to measure telescope and microscope magnifying power, lens aberrations, slit and interferometer fringes, and Fraunhofer and Fresnel diffraction patterns; and to characterize the polarization of light.

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