spectrally resolved white light interferometry, which increases the range of measurement by removing the hermitian symmetry of the interferogram signal.

JTu4A.3
Depth imaging by coherence scanning, Amit Yadav[1], Gyanendra Sheoran[2], Rakesh Kumar Singh[1]; *[1]Department of Physics, Indian Inst. of Technology (Banaras Hindu Univ.), India; [2]Department of Applied Sciences, National Inst. of Technology Delhi, India.* We present a technique for depth imaging by coherence scanning and intensity correlation. The object located at a depth behind the scattering wall is estimated, and initial results are presented.

JTu4A.4
Calibrated Attenuation Method for Characterization of Single Photon Detectors, Ali Anwar[1], Loyd J. McKnight[1,2], Sarah McCarthy[1]; *[1]Fraunhofer Centre for Applied Photonics, UK; [2]SUPA Dept. of Physics, Univ. of Strathclyde, Inst. of Photonics, UK.* Characterization of a single photon detector without direct measurement of input photon flux is presented. With calibration of optical power with laser attenuation, the detector is characterized without changing configuration for input photon flux measurement.

JTu4A.5
A High-Speed Single-Pixel Optical Imaging Technique Using Orthogonal Modulators Without Mechanical Scanning, Yohan S. Soares[1,2], Marcelo P. Cionek[1], Marcelo Jean Machado[1], Camille V. Unger[1], Patrick Kilcullen[2], Lino Misoguti[3], Tsuneyuki Ozaki[2], Emerson Cristiano Barbano[1]; *[1]Physics Department, Federal Univ. of Paraná, Brazil; [2]Institut national de la recherche scientifique, Canada; [3]São Carlos Inst. of Physics, Univ. of São Paulo, Brazil.* 2DOIT is a fast optical imaging technique based on orthogonal modulations using two choppers. It eliminates mechanical translation and is limited by the acquisition rate and optics, enabling high-speed video with a single-pixel detector.

JTu4A.6
Unveiling Vibration Features of a Smartphone Piezo-Actuated Audio-Screen with Feedback Interferometry, Carlo Anelli[1], Sabina Merlo[1]; *[1]Department of Electrical, Computer and Biomedical Engineering, Univ. of Pavia, Italy.* For preliminary investigations of vibration modes of a smartphone screen, turned into a next-gen loudspeaker by electrically driven piezoceramic transducers attached to it, we exploited semiconductor laser feedback interferometry. Spatially resolved frequency responses are reported.

JTu4A.7
High-Precision Photonic Testing for Cryogenic Applications Using Advanced Micro Lens Technology and Probe Station System, Quan Yuan[1], Phoenix Dai[1], Beverly N. Boiko[1], Divya Pratap[1], Josh West[1]; *[1]FormFactor Inc, USA.* We present the first demonstration of fiber-coupled micro-lens integration with a 4K chip-scale probe station for cryogenic photonic integrated circuit (PIC) testing. Measurement performance is validated via ring modulator metrics (insertion loss, stability, repeatability), highlighting its suitability and implication for cryo PIC characterization.

JTu4A.8
Augmented Reality and the Teaching of Electricity and Magnetism in Introductory Physics, Matthew Anderson[1], Janet Bowers[1], Dustin Thoman[1], Elizabeth Flynn[1], Adrian Larios[1], India Wishart[1], Luke Anderson[2], Beau Green[2]; *[1]San Diego State Univ., USA; [2]Altoura Inc.,*