

Abstract Submitted  
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**Single x-ray photon diffraction** ALEXANDER PANIN, Utah Valley University — Single photon diffraction in visible light is very difficult to demonstrate as it requires very low intensity sources and very sensitive detectors. In x-ray range of electromagnetic spectrum these conditions are much more relaxed due to much higher probability of spontaneous emission and much higher energy of photons, so experiments with single photon diffraction can be easily arranged with ordinary x-ray sources (like x-ray tube) and ordinary detectors (like Geiger counter, CCD array, etc). We have performed such experiments. Analytical comparison of single photon x-ray diffraction and visible light diffraction, and the discussion of results of our experiment are presented in the talk.

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