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Extreme Frame Rates for Photon Science

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LCLS II HE will deliver x-ray pulses at a rate approaching a megahertz and will be the brightest x-ray source ever. A program is underway to develop detectors that can record images as fast as the accelerator generates them. An incremental approach is being pursued with multiple systems intended to cover the science relevant portions of the performance parameter space in metrics such as dynamic range, noise, frame rate, spatial resolution, etc. Progress and plans will be presented.

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