Contribution ID: **38** Type: **Invited**

Extreme Frame Rates for Photon Science

Monday, 13 March 2023 10:45 (30 minutes)

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.

Primary authors: KENNEY, Christopher (SLAC); DRAGONE, Angelo (SLAC); ROTA, Lorenzo (SLAC); BLAJ, Gabriel (SLAC); DOERING, Dionisio (SLAC); SCIORTINO, Dan (SLAC); HERBST, Ryan (SLAC); ROZARIO, Lisa (SLAC); SEGAL, Julie (SLAC); HASI, Jasmin (SLAC); HANSSON, Conny (SLAC); HART, Philip (SLAC); NAKAHARA, Kazutaka (SLAC); MCKELVEY, Mark (SLAC); MARKOVIC, Bojan (SLAC); PEREZ, Aldo (SLAC); BOO, Stephen (SLAC); ORINUNNO, Marco (SLAC); NAYAK, Bhavna (SLAC); MANGER, Leo (SLAC); FRONK, Nathan (SLAC); HALLER, Gunther (SLAC)

Presenter: KENNEY, Christopher (SLAC)

Session Classification: Imaging

Track Classification: Imaging