

## 8. Annual MT Meeting



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# The Back-illuminated 2-Megapixel Soft X-ray Imager, PERCIVAL-P2M

*Tuesday 27 September 2022 16:30 (20 minutes)*

The “Pixelated Energy Resolving CMOS Imager, Versatile And Large” (PERCIVAL) is a monolithic CMOS active pixel sensor for soft X-rays in synchrotron rings and free-electron lasers. The first back-illuminated full-size sensor, P2M, has a large continuous sensitive area of 4 cm x 4 cm (1408 x 1484 pixels of 27 um x 27 um) and has been applied to user experiments at FLASH and Petra III. A new calibration algorithm has been developed to correct non-linear responses of PERCIVAL. We will report on the status of the project together with the user-experiment results and an overview of the upgrades in progress.

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**Session Classification:** Detector Technologies and Systems