PX^2

PX^2 continues to progress quite well. Beamline developments and planned work are in excellent agreement with the user community needs. The main development in 2018 was the purchase of a new Pilatus 3S detector. This replaces the marCCD and has much faster readout and lower noise. This detector is being commissioned and is planned to be available to users in early 2019.

The program has attracted a large user base. This year 99 proposals were received requesting 716 shifts, compared to 61 proposals and 467 shifts in 2017, which is more than 50% growth in a single year. The oversubscription has increased from 1.08 to 1.63.

The PX^2 program was originally planned to use 50% of the beam time on this station, but is actually using over 70%. Approximately 2

One concern is the large fraction of users from Asia (39) compared to the USA (24). Many of these are from HPSTAR. 27% of the beamtime requests and 37% of the beamtime allocated were for COMPRES users. The facility should attempt to increase COMPRES usage of the facility.

The PI and beamline scientist helped to organize the IUCr Commission on High Pressure meeting in Honolulu in summer 2018. In conjunction there was a related COMPRES-supported training workshop on single-crystal diffraction. Hopefully these will increase the COMPRES demand for the facility.

There are 18 new publications are since the last report Nearly all are high-pressure single-crystal diffraction, and approximately 60% are in earth science. The publication rate has steadily increased each year, which is good to see.

The budget includes funds for a month of a technician at the University of Hawaii. There is only a very general description of what this person will do, and nothing about what he has done in the past.

The facility has interviewed candidates for the junior beamline scientist position, and plan to fill the position in early 2018.