HSC image quality at high elevation

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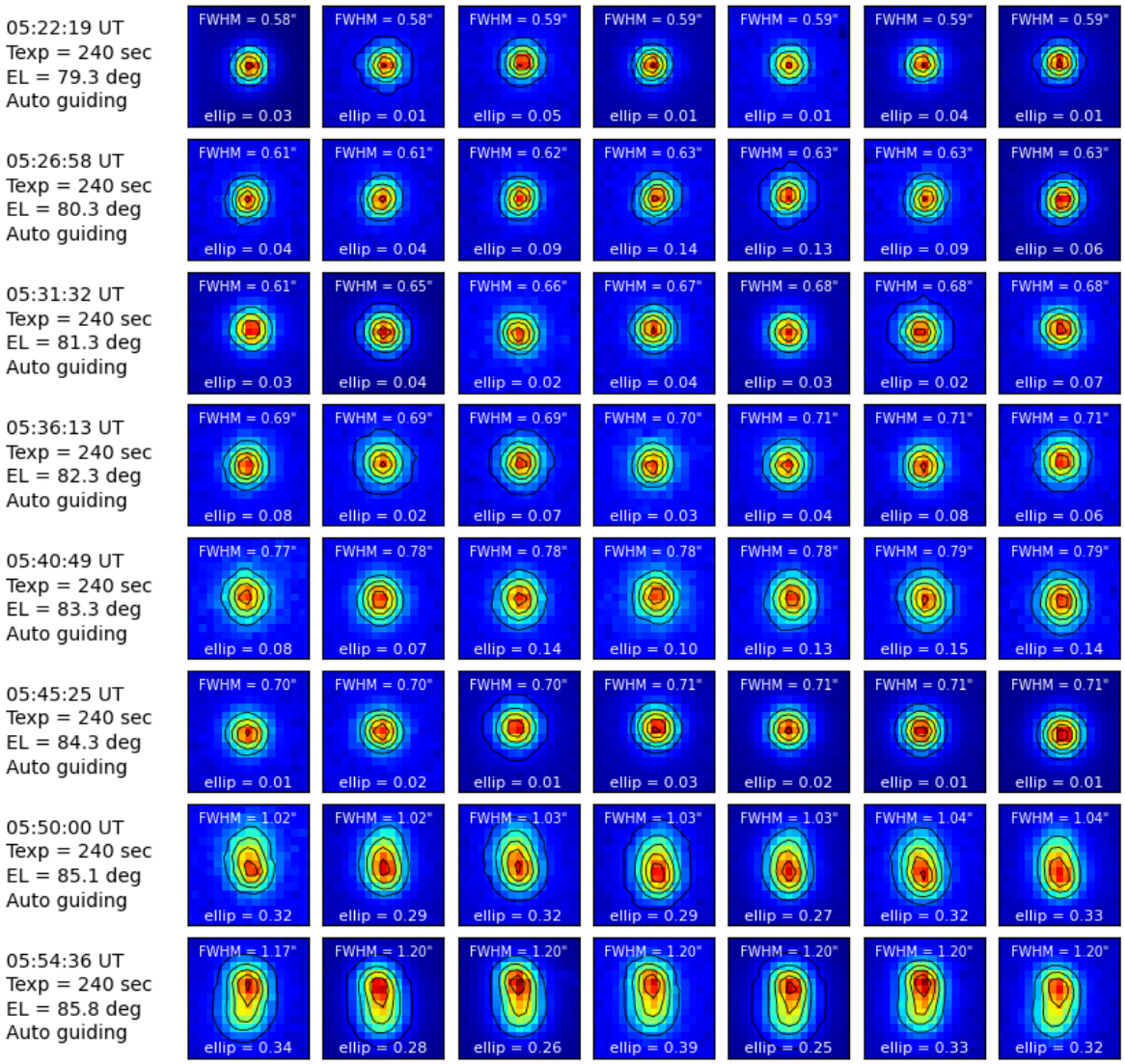
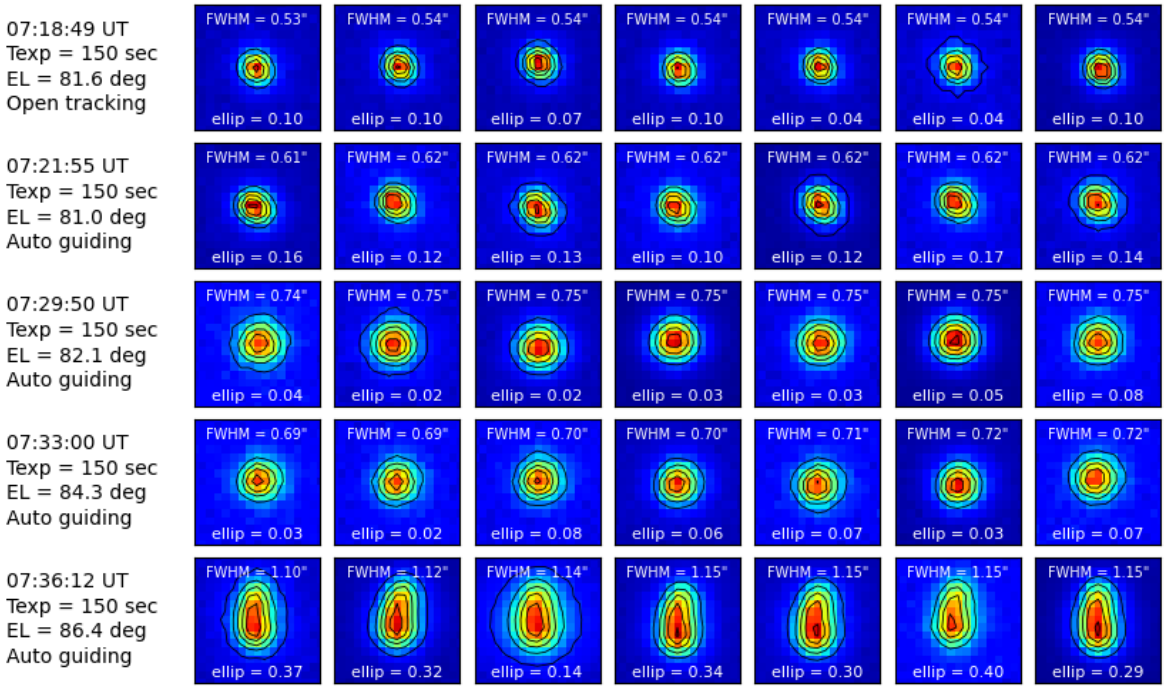
- Image quality of the HSC data taken at high elevation ($> 75°$) were inspected using the archival data.
- The following figures show stellar images in the data of CCD #049 (0_12) at the center of the field-of-view that were obtained with consecutive exposures to minimize other effects.
- Stellar images may deteriorate if the data are taken at elevation of $\sim 80°$ or higher. There is a high risk of star elongation/distortion above $\sim 84°$ in elevation even with auto guiding.

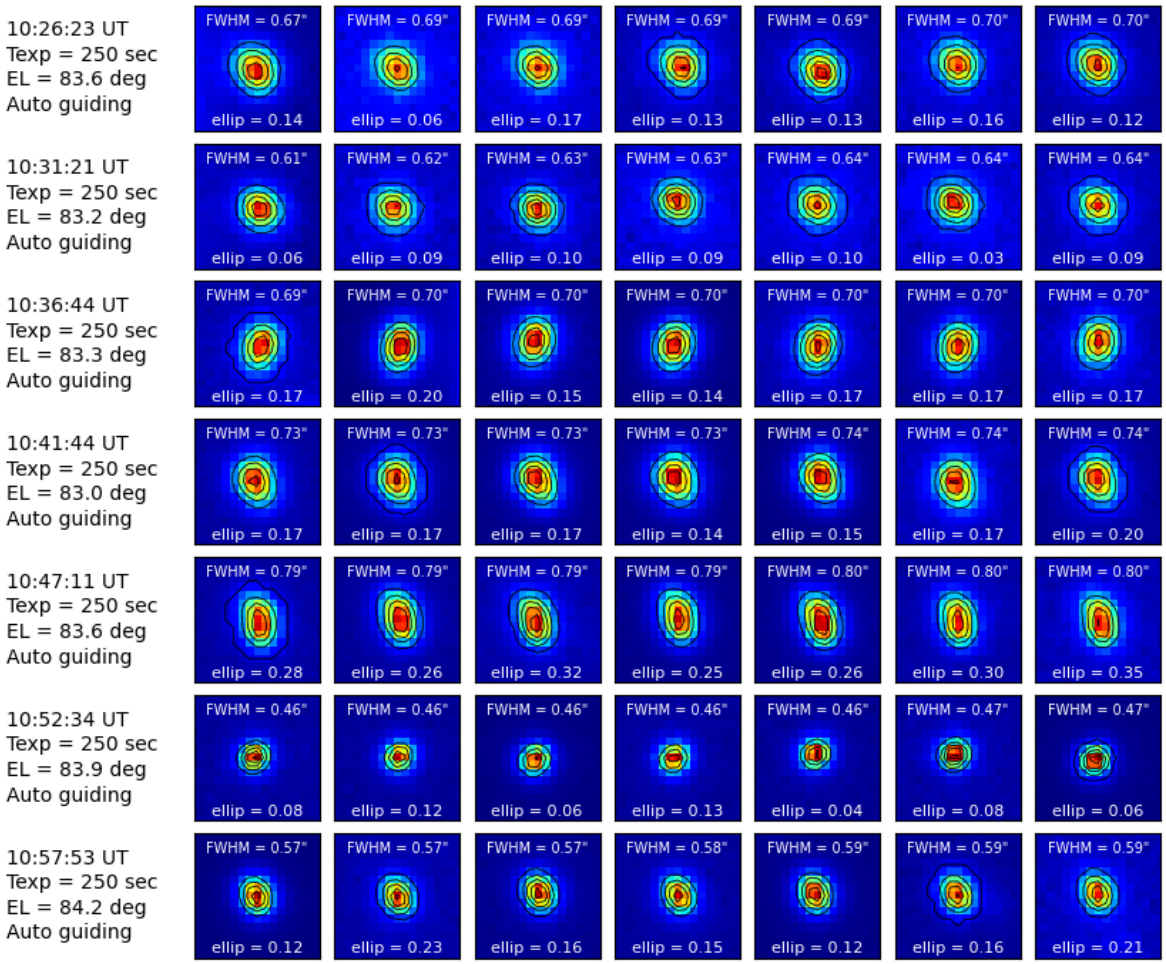
Consecutive exposures on a night in November 2014



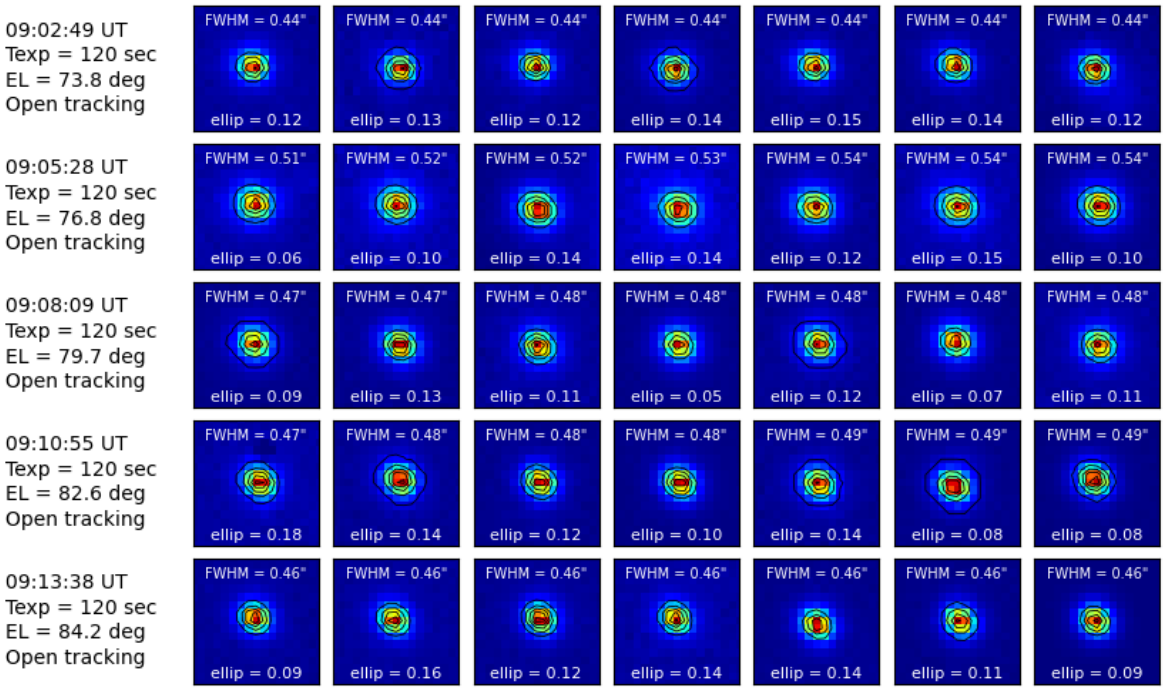
Consecutive exposures on a night in March 2015



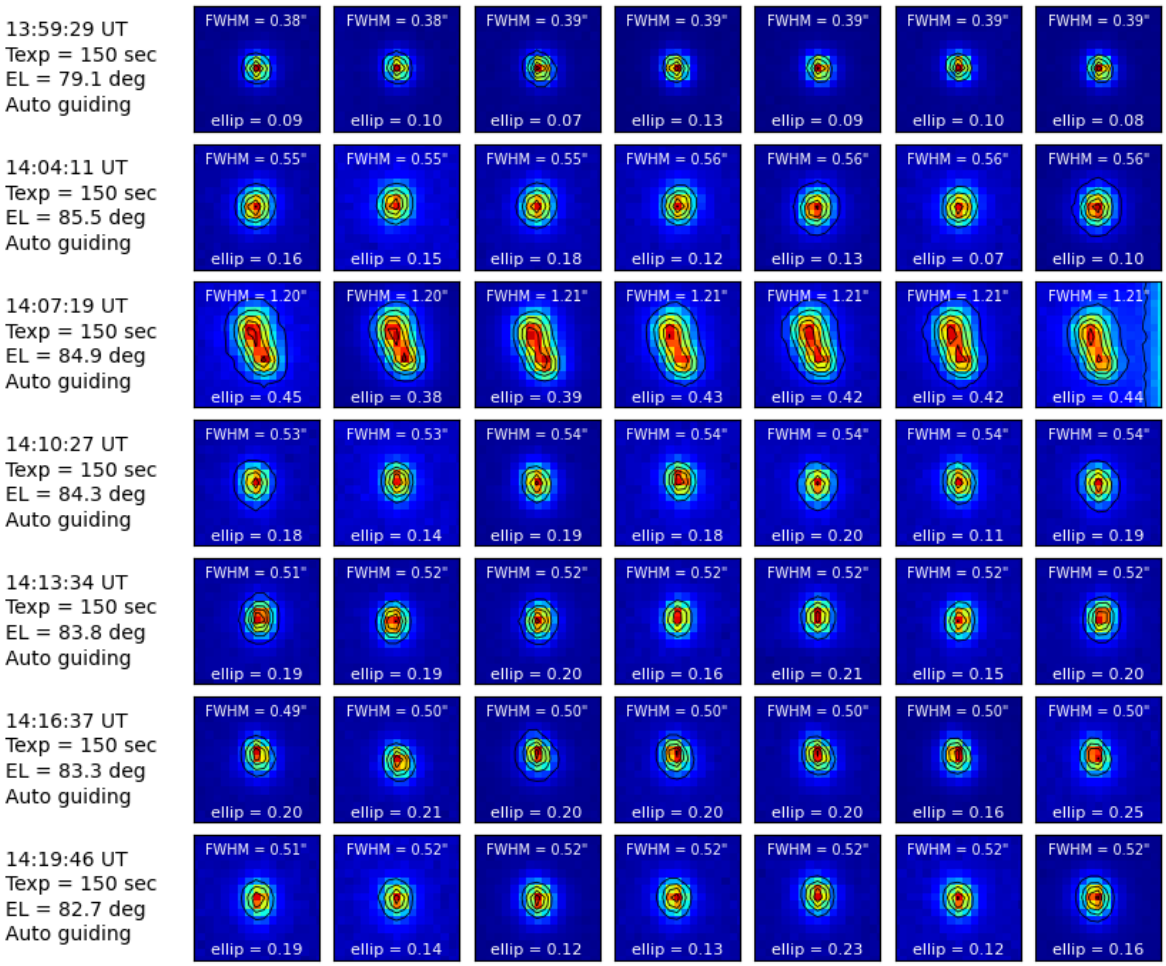
Consecutive exposures on a night in October 2015



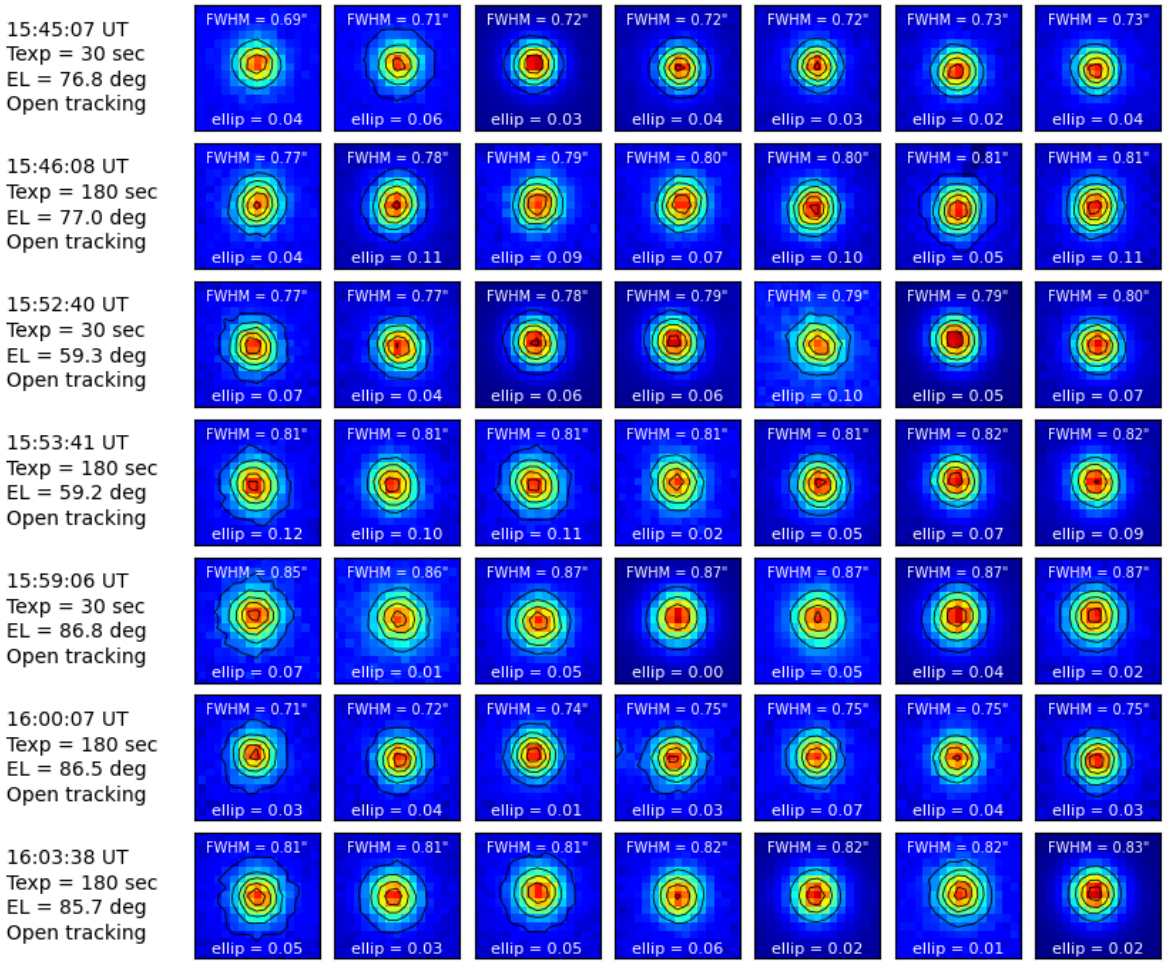
Consecutive exposures on a night in June 2016



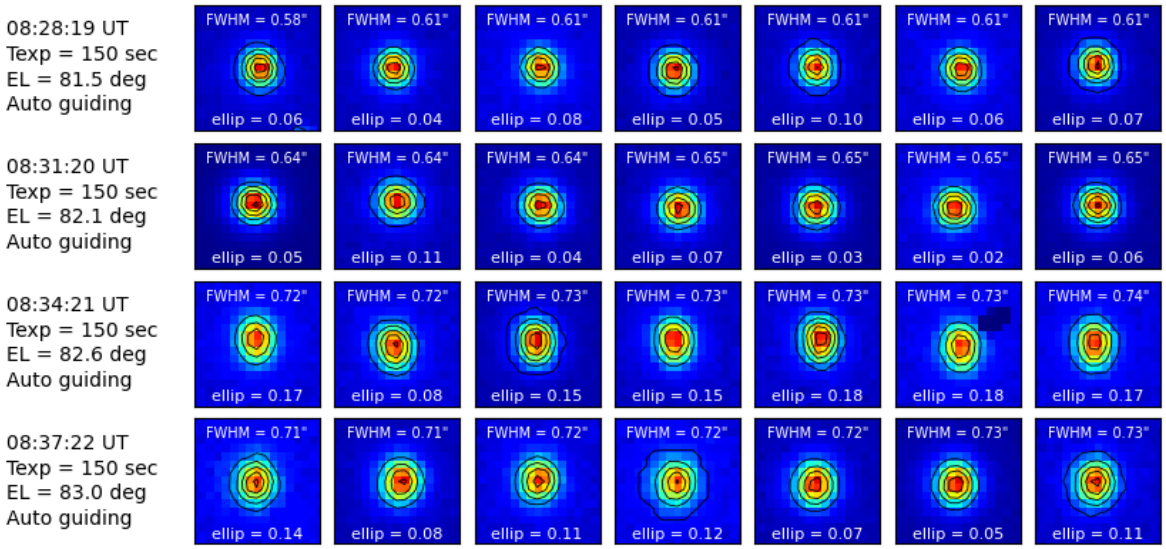
Consecutive exposures on a night in October 2016

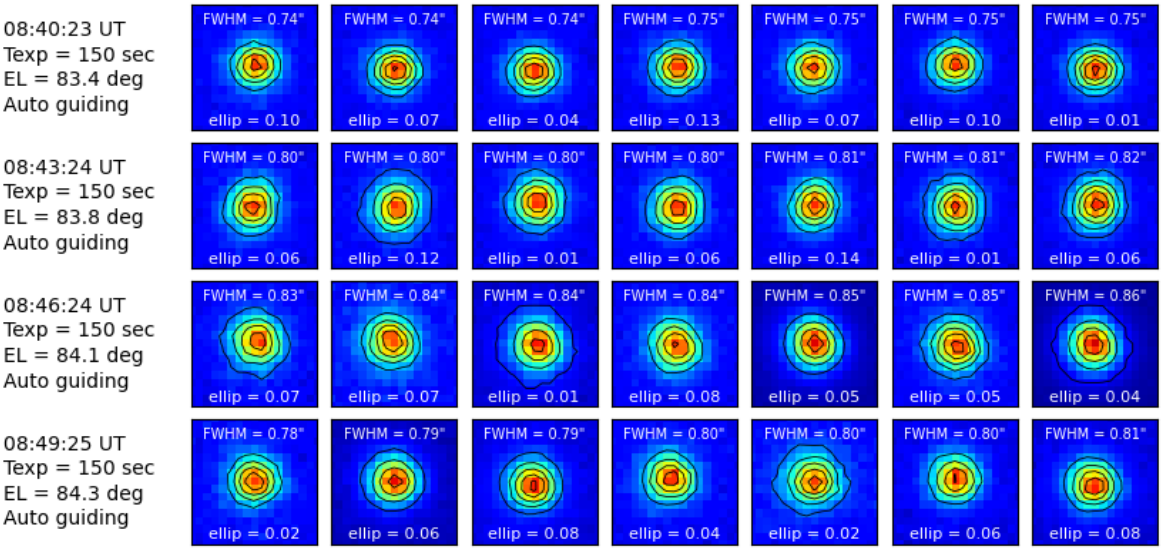


Consecutive exposures on a night in January 2018



Consecutive exposures on a night in April 2018





Consecutive exposures on a night in June 2022