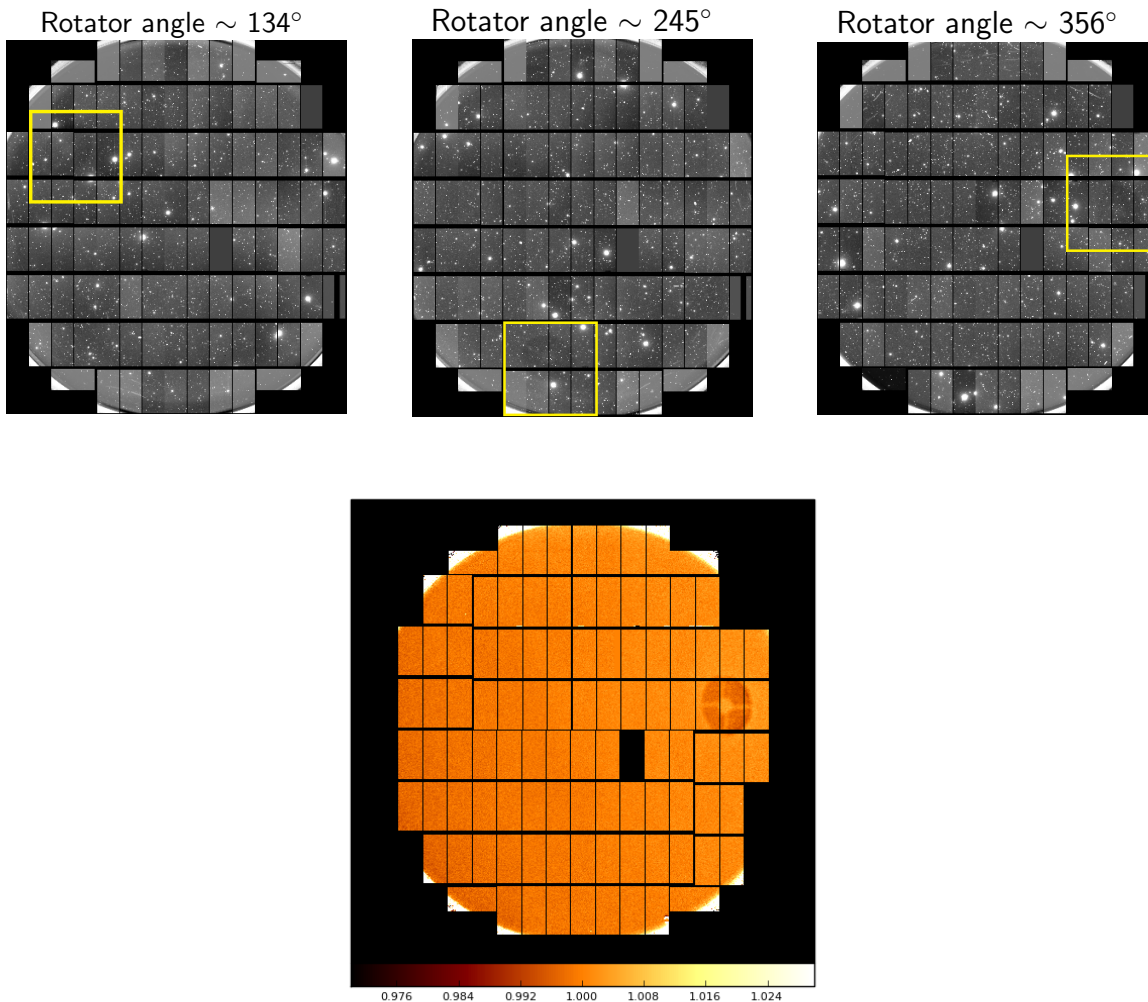


HSC image issue in 2019

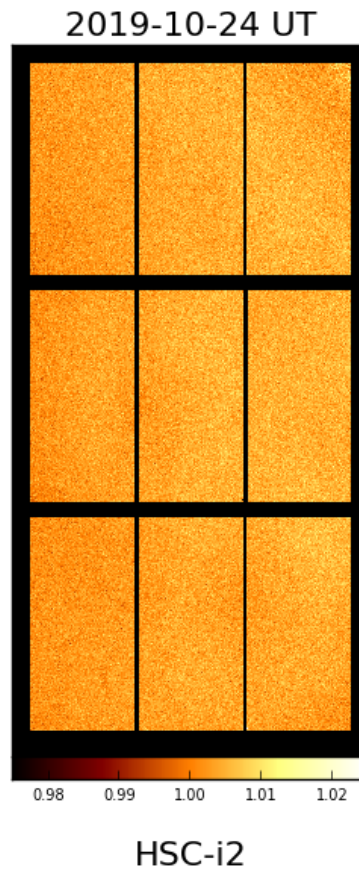
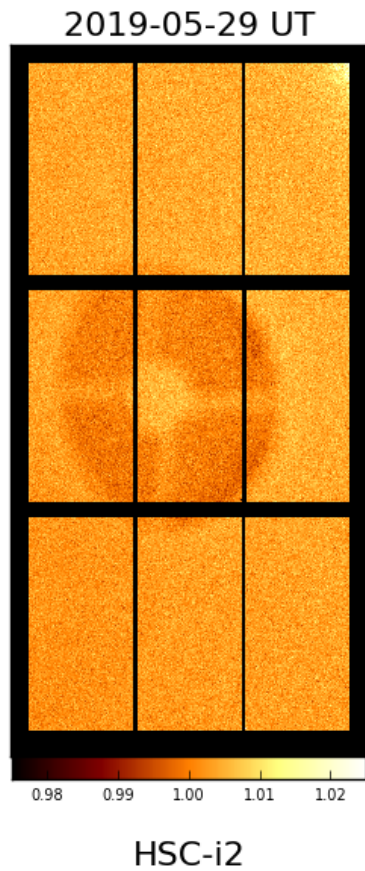
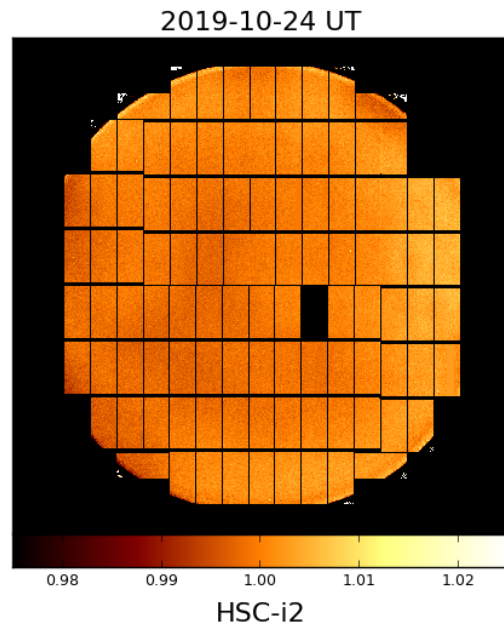
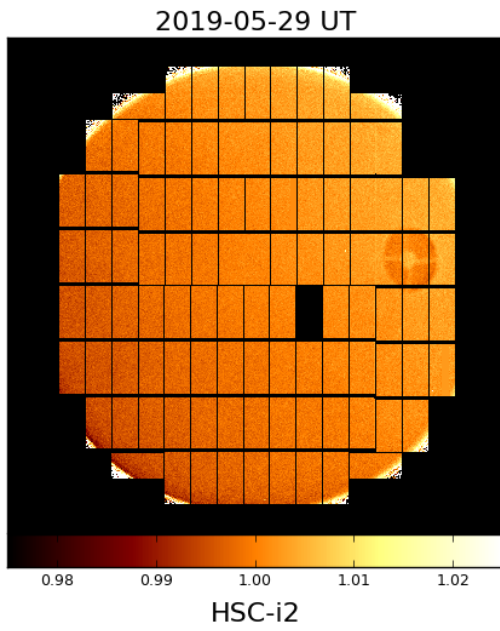
October 24, 2019

- A shadow of the telescope top-ring structure has appeared on HSC images (except for bias and dark frames) since the late February, 2019.
- This was probably caused by a stain that appears to be a drop of glycol on the top lens (G5) of the wide-field corrector.
- This pattern is not erased by flat-fielding but can be eased through sky subtracting and combining dithered images.
- Lens cleaning was carried out after the end of 2019 September run. As a result of inspection with dome flat images, the shadow was confirmed to have disappeared.
- Please pay attention to your data reduction for images obtained from the late February (the beginning of 2019 March run) to the early October (the end of 2019 September run) which include HSCA16530200–HSCA18623157.



Dome flat taken in 2019 June divided by that taken in 2018 December.

- Comparison of the image quality before and after lens cleaning



Dome flats in the i2 band before/after lens cleaning (divided by that taken in 2018 December).