

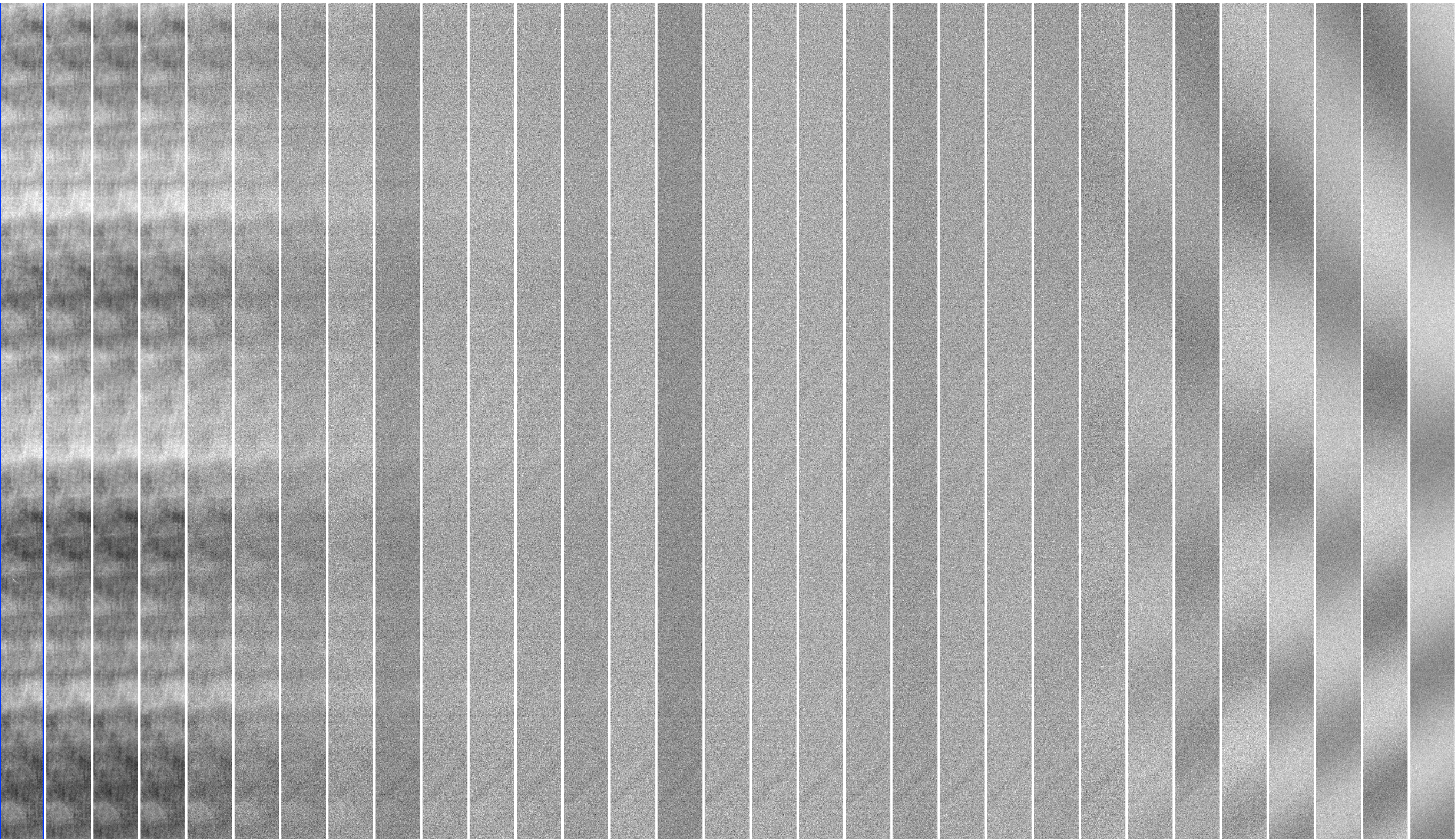
QE spatial variations

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2019/8/13 LSST PCW

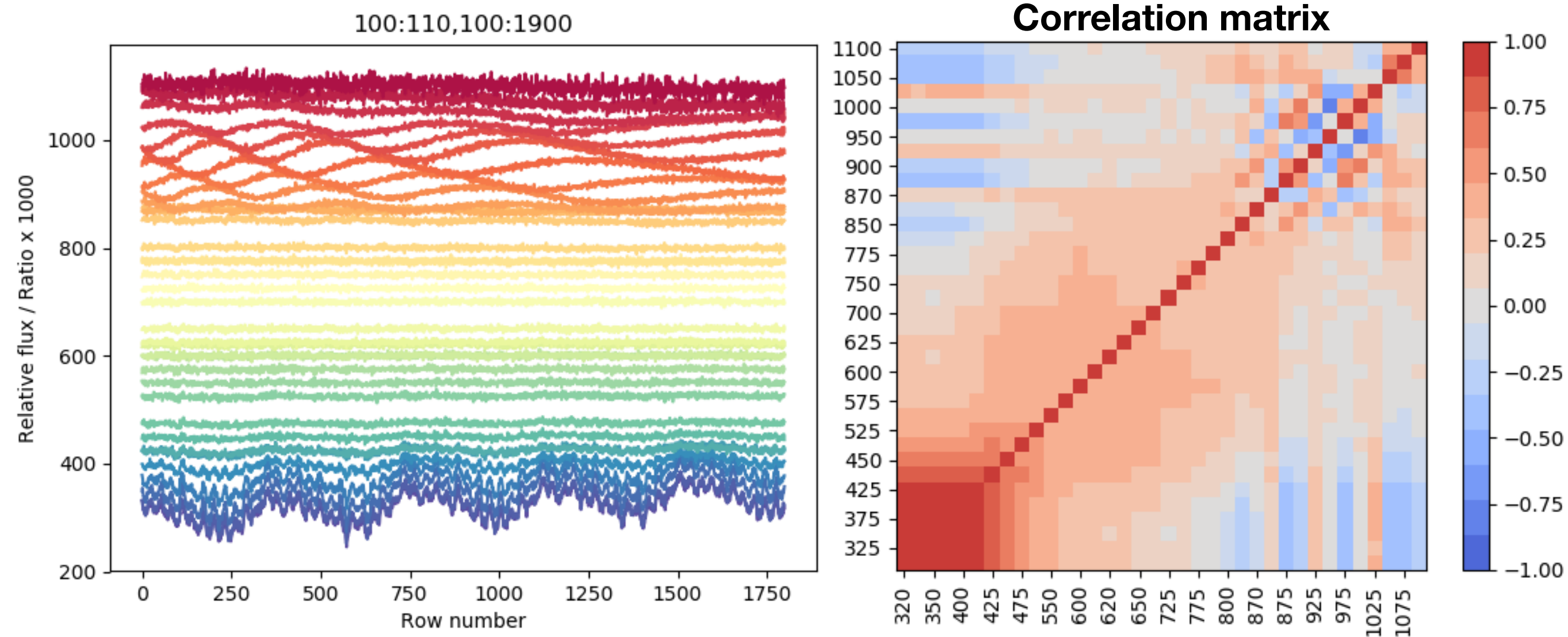
Structures in QE acquisition (E2V)

320nm

1100nm



Structures in QE acquisitions



Annealing

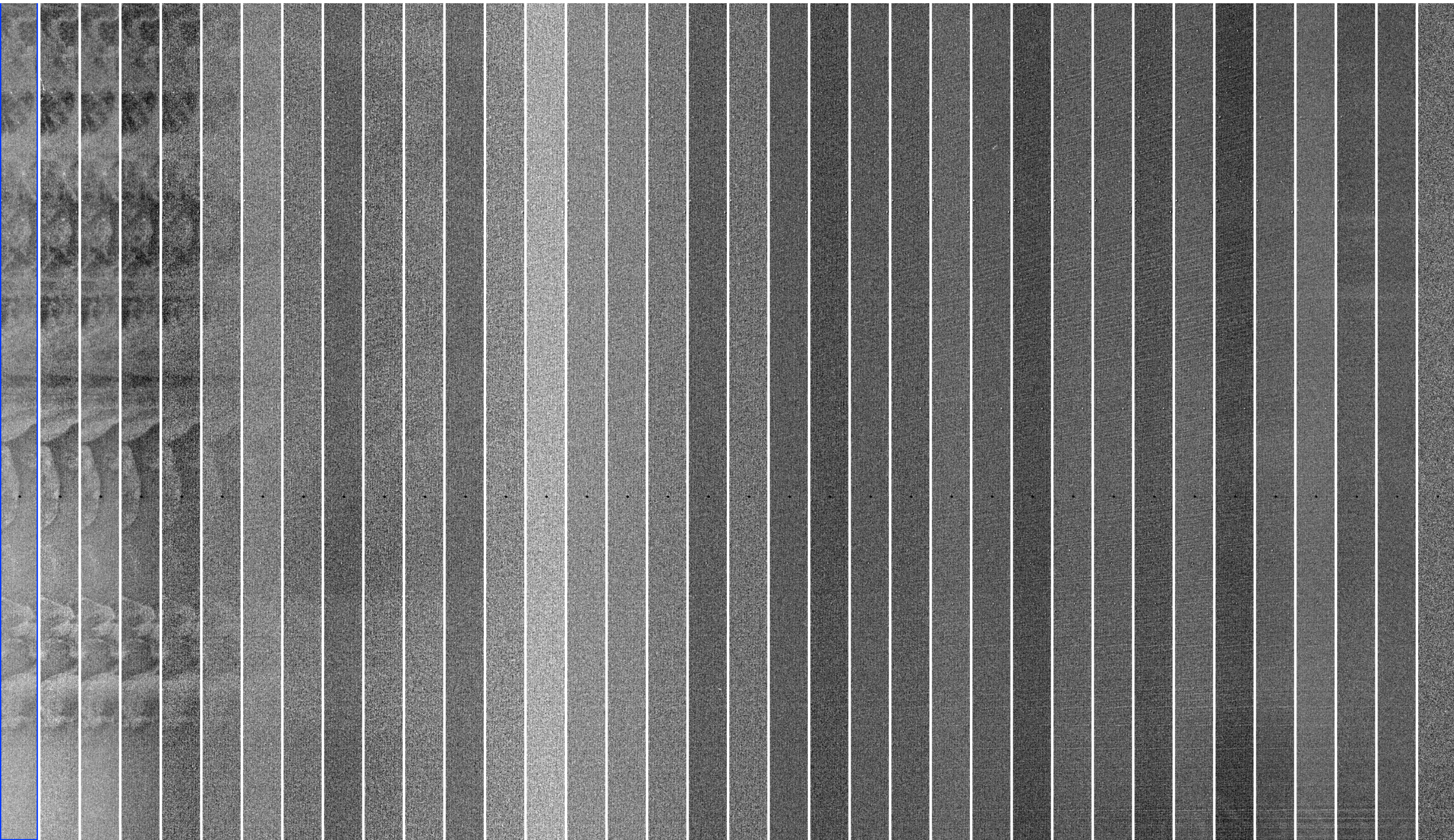
Tree ring

Fringing

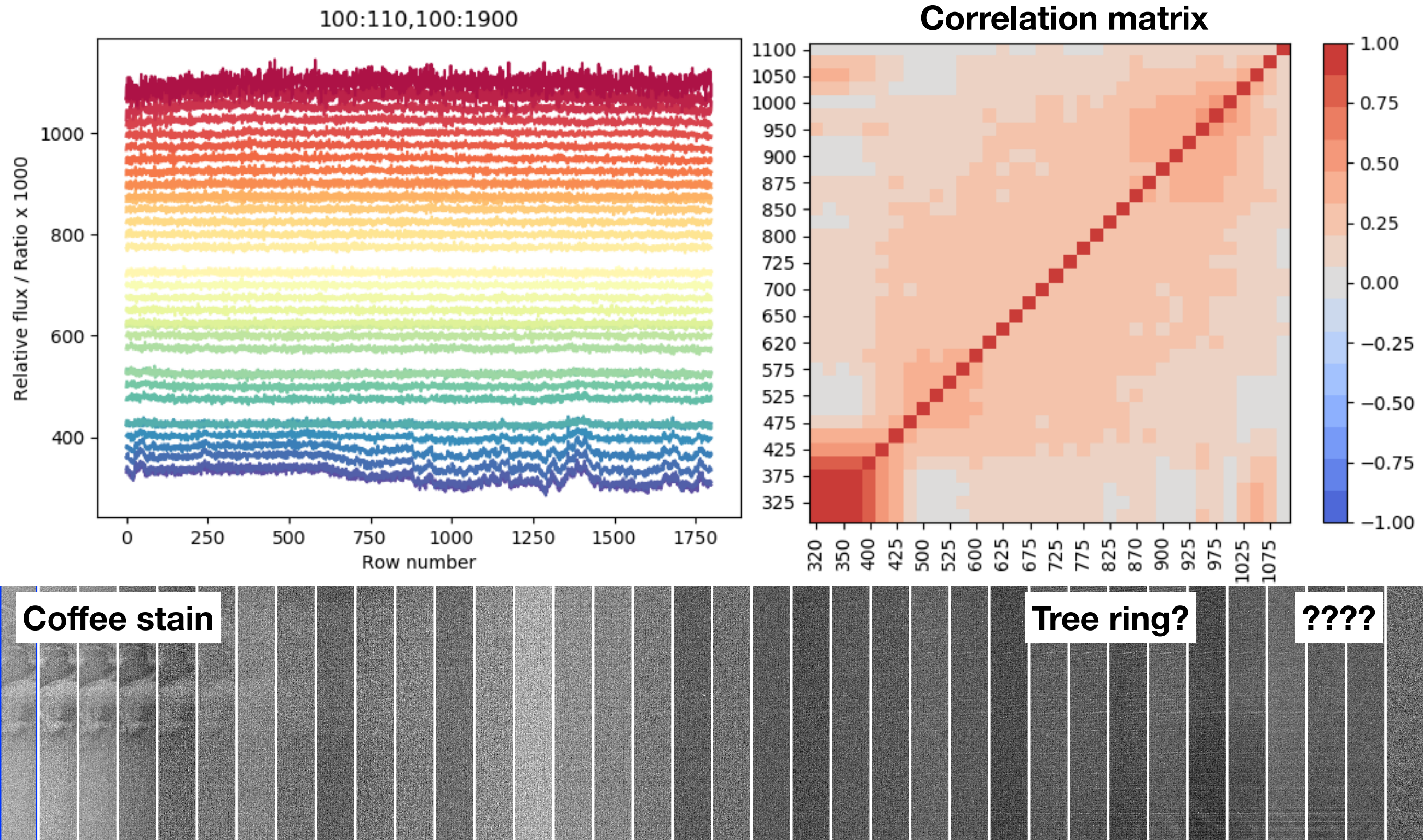
Structures in QE acquisition (ITL)

320nm

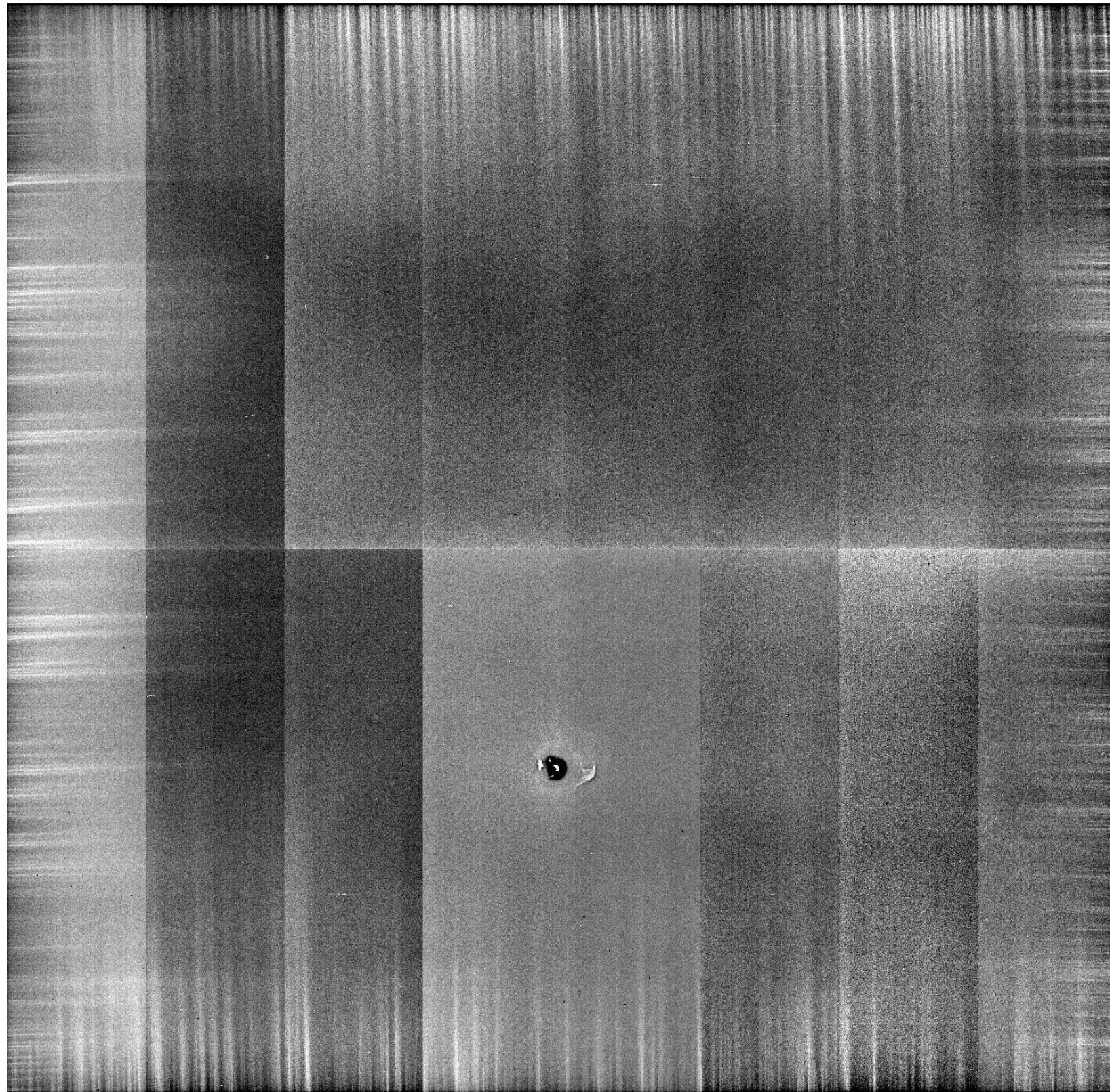
1100nm



Structures in QE acquisitions



What's this??



- a few percent amplitude
- Only visible between 1000nm and 1100nm
- Looks light? Not electronics
- exists in a BNL result
- Hard to see usual EO report

Summary

- E2V
 - Annealing pattern in blue
 - No shift along with wavelength
 - 1%, 30px ~ roughly object size
 - 5%, 360px ~ sky estimation size?
 - Tree ring in mid band
 - <1%
 - See HyeYun's presentation: https://confluence.slac.stanford.edu/display/LSSTDESC/January-June+2019?preview=/243078140/243084622/TreeRings_updates.pdf
 - Fringing in red
 - moving around
 - 5%, variable wavelength
- ITL
 - Coffee stain in blue
 - No shift along with wavelength
 - 5%, various sizes
 - Tree ring in red
 - <1%
 - New four side comb-like pattern
 - Seen in SLAC and BNL Raft level testings, but not obvious in a sensor level
 - What's this?