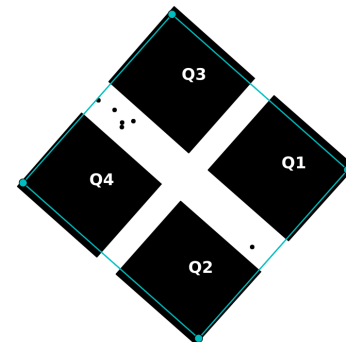
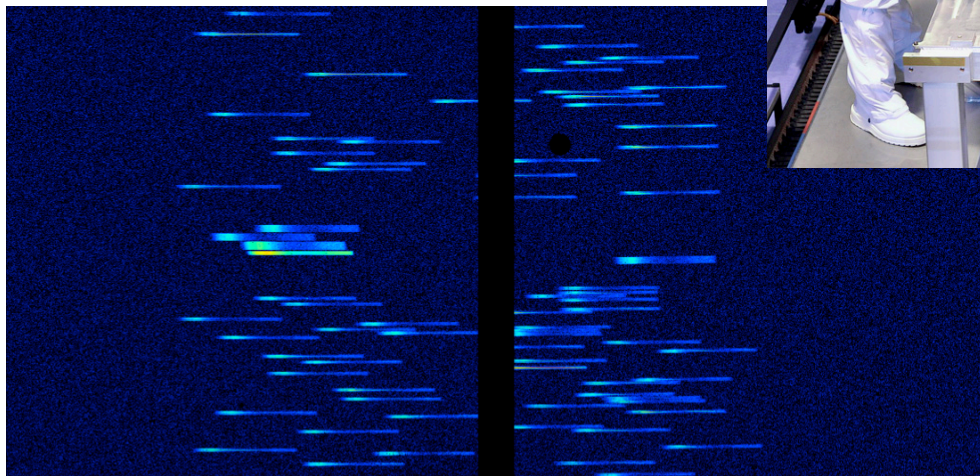
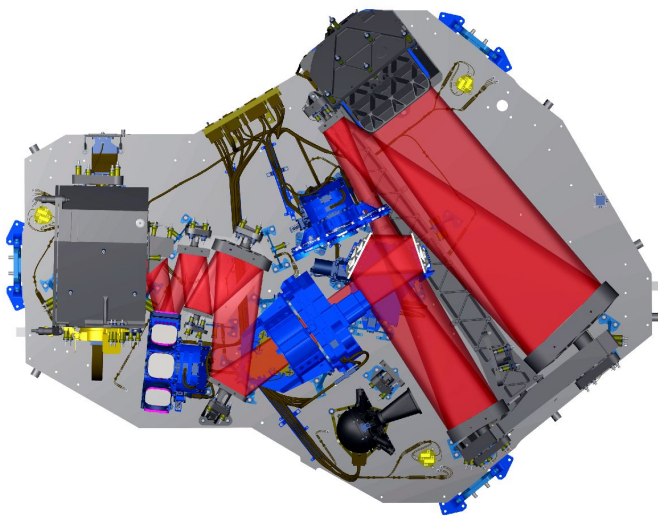


NIRSpec sensitivity – IFU mode

James Webb Space Telescope



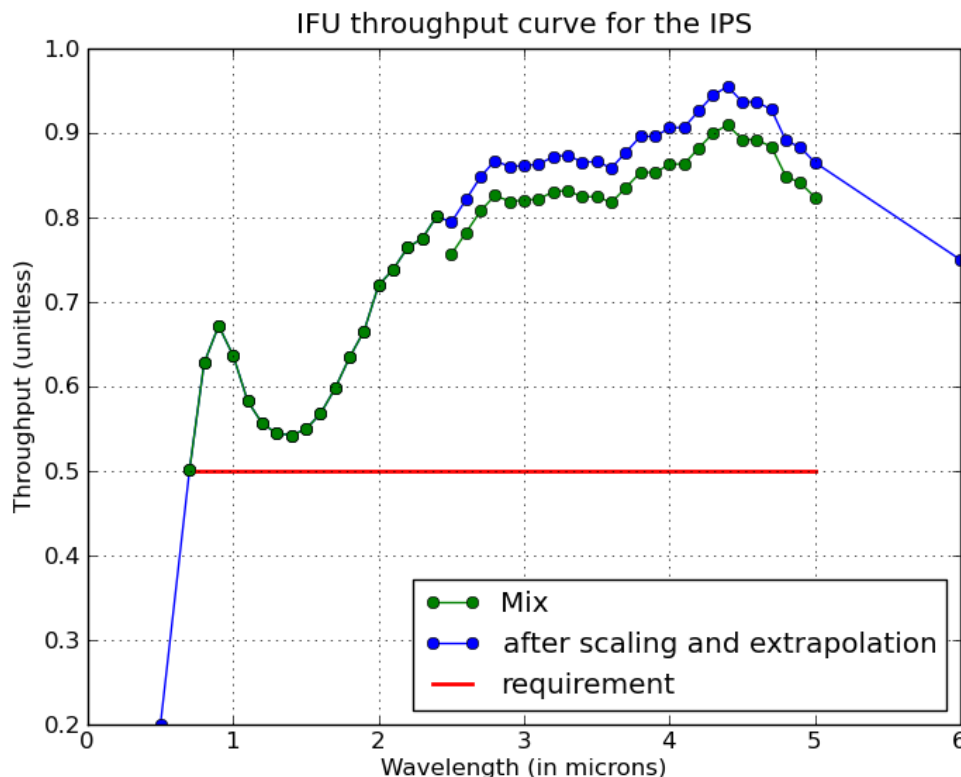


From MOS mode to IFU mode...

- Key differences.
 - More optics in the path of the photons = lower throughput.
 - Performances for point source observations are less relevant.
 - What does not get into a slice will end up in the next one... The notion of "slit losses" is not relevant anymore.
 - Different observation strategies.
 - For background subtraction...
 - Dithering patterns...

Change in throughput

- Not that bad in the red part of the spectrum, quite some losses at the blue end...



Reference: 4515s617iss1_ThroughputBudgetWithMirrorRoughness.csv

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Back to detector noise regime

White board exercise...

- You do not throw away some light (no “slit losses”) but at the end of the day you spread it over more pixels. And it can hurt...