Omega Cen in SIMCADO

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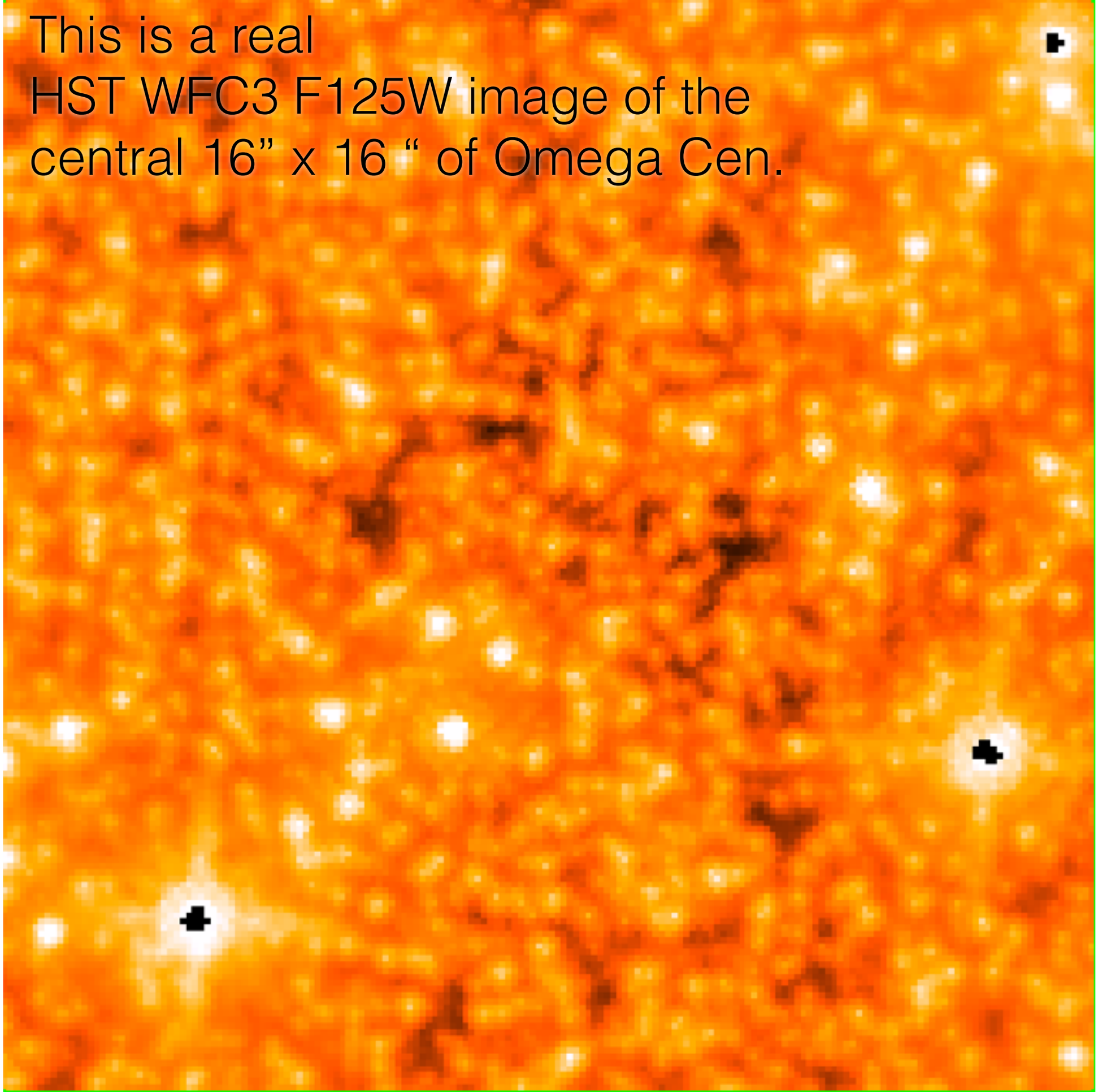
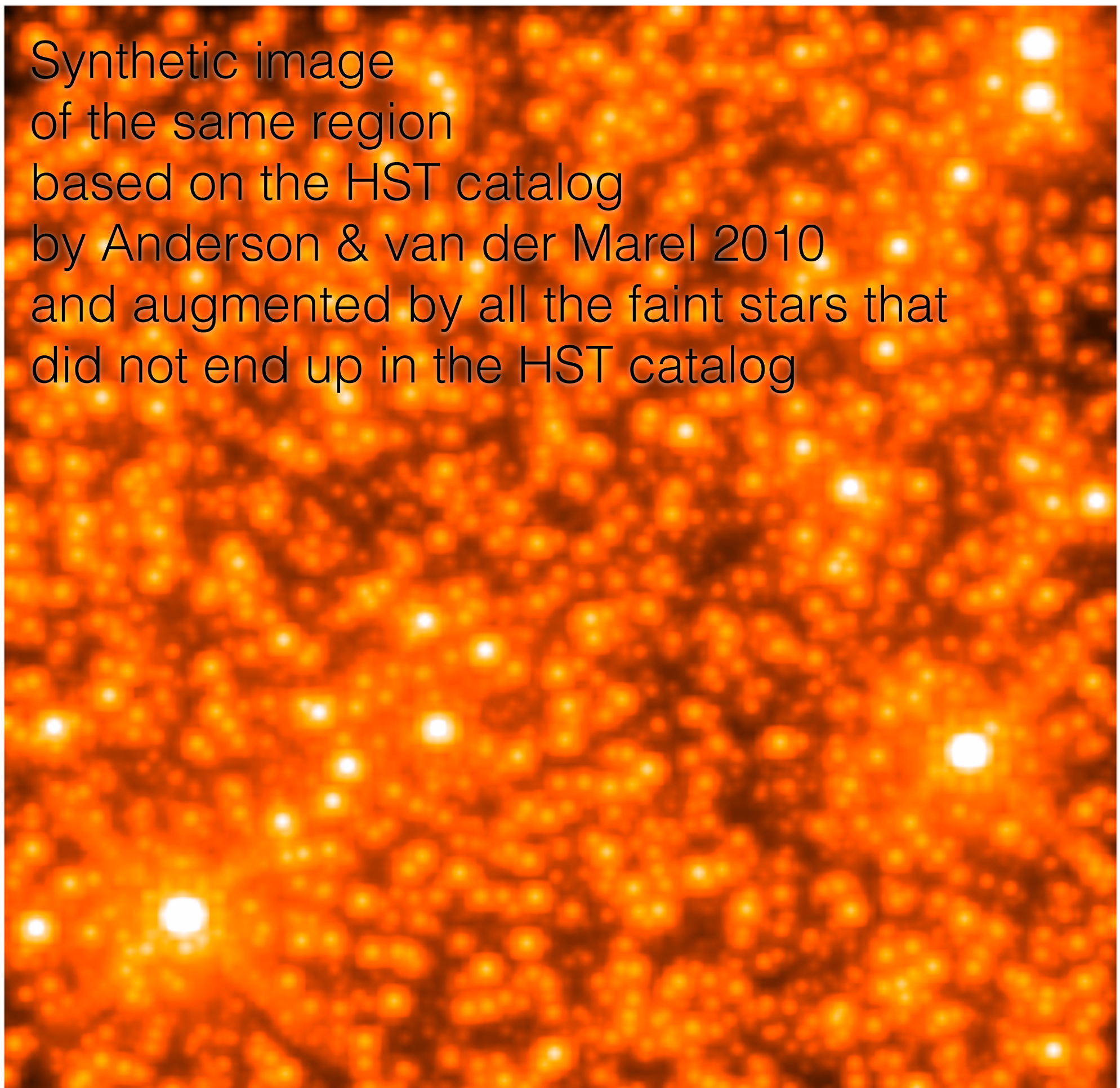
MICADO pixel…

- are really small.
- In the Anderson & van der Marel catalog, there are 1.2 million stars in the central ~ 200“ x 200” of Omega Cen.
- This would make for about ~ 1 star of every 2000 (= 44 x 44) pixel of MICADO in Wide Field mode!
- This makes for a boring scenery.
- So the catalog should be augmented with the faint stuff that HST won’t see.
- I used a Padova luminosity function for this and matched its bright end to the catalog luminosity function.

This is a real
HST WFC3 F125W image of the
central 16” x 16 “ of Omega Cen.




Synthetic image
of the same region
based on the HST catalog
by Anderson & van der Marel 2010
and augmented by all the faint stars that
did not end up in the HST catalog

SIMCADO J-Band
of the same region

Caveats

- No realistic ETC done. Not sure how many of the faint stars we will actually detect.

- The catalog has R mags rather than J mags. I implicitly assume a constant color.