Observatoire astronomique
de Strasbourg

3π coverage maps

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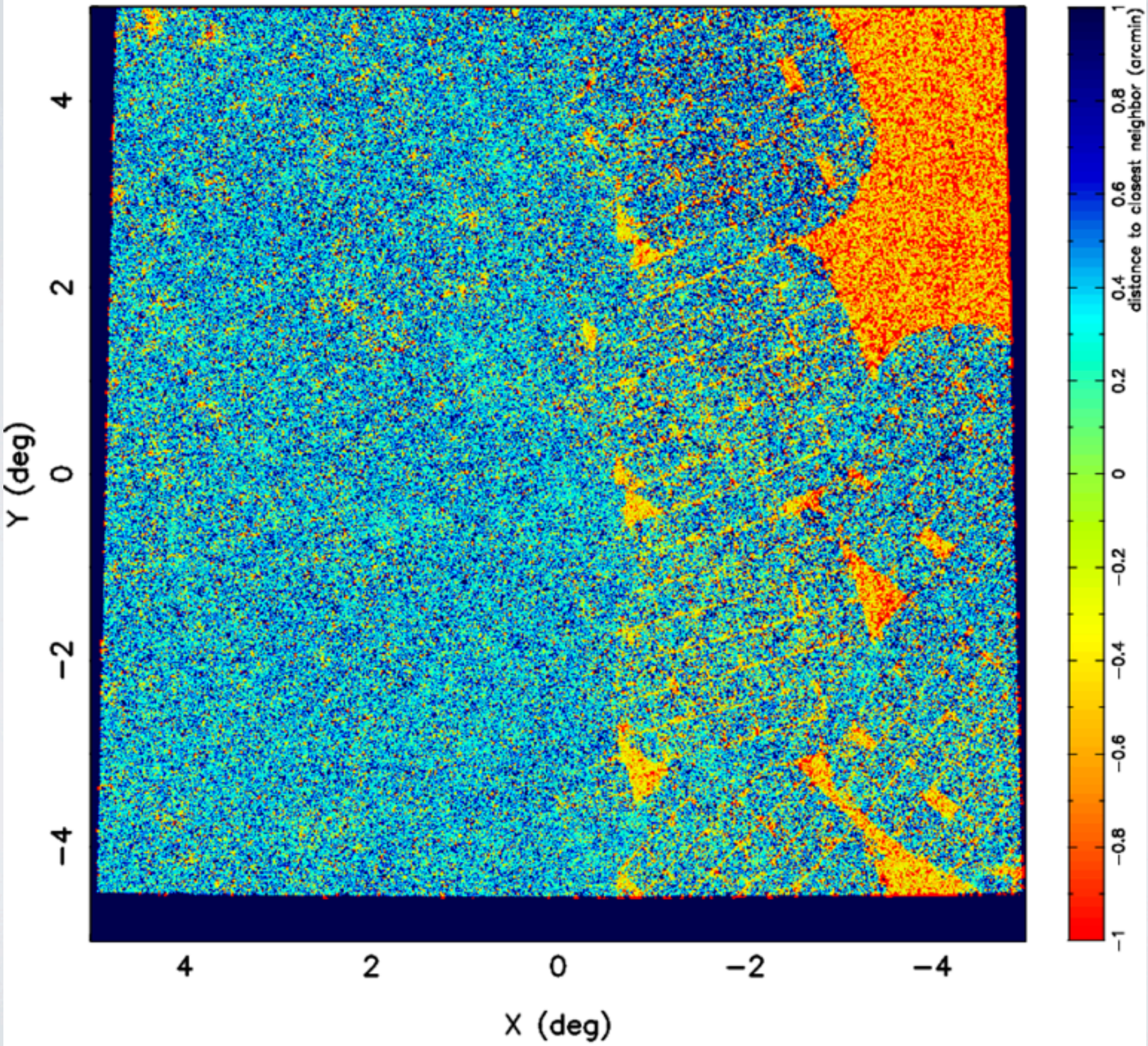
Spatial completeness algorithm

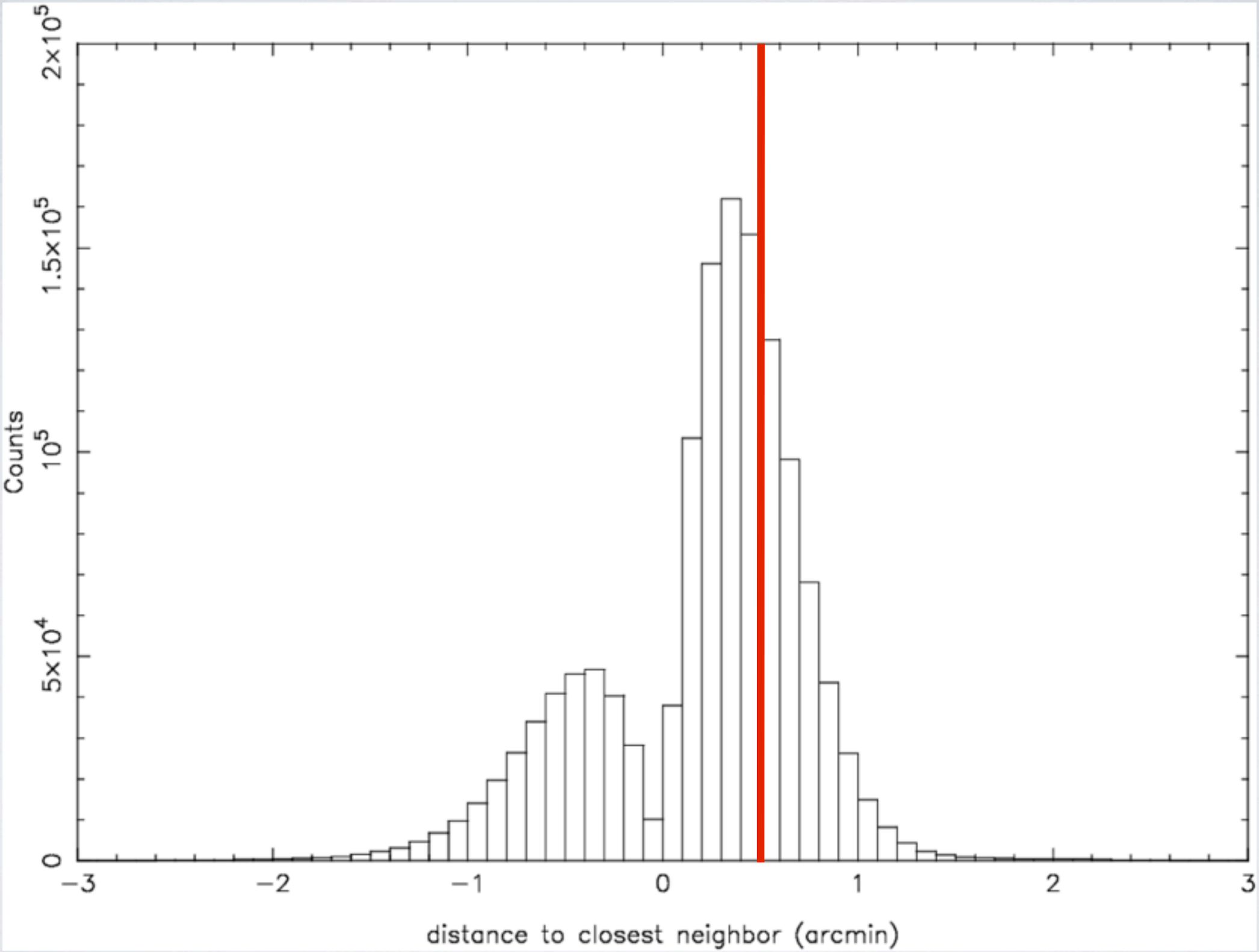
→ *Self-calibration with PS1, using other bands*

- For a given band, say *g*
- Binning sky with 0.5×0.5 arcmin^2
- For each bin (*x*,*y*):
  - determine the closest star that appears in two other bands
  - is this star also in the band of interest (*g*)? → completeness(*x*,*y*, *g*) = 1
  - else → completeness(*x*,*y*, *g*) = 0
  - (if closest star > 2', probably don't want to use that region)

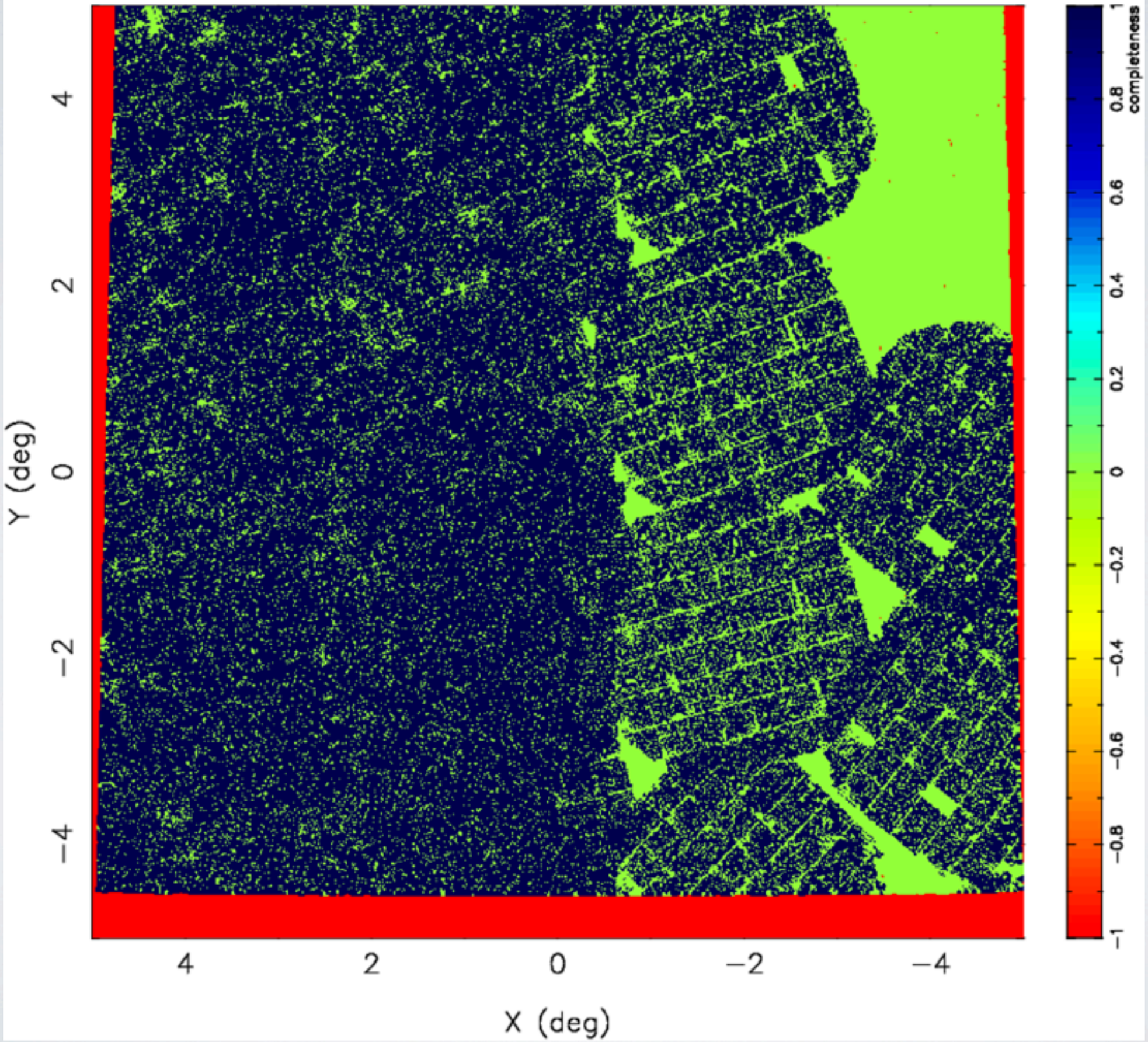
- "Adaptive resolution," requires a location to have been observed in 3 bands… not that restrictive

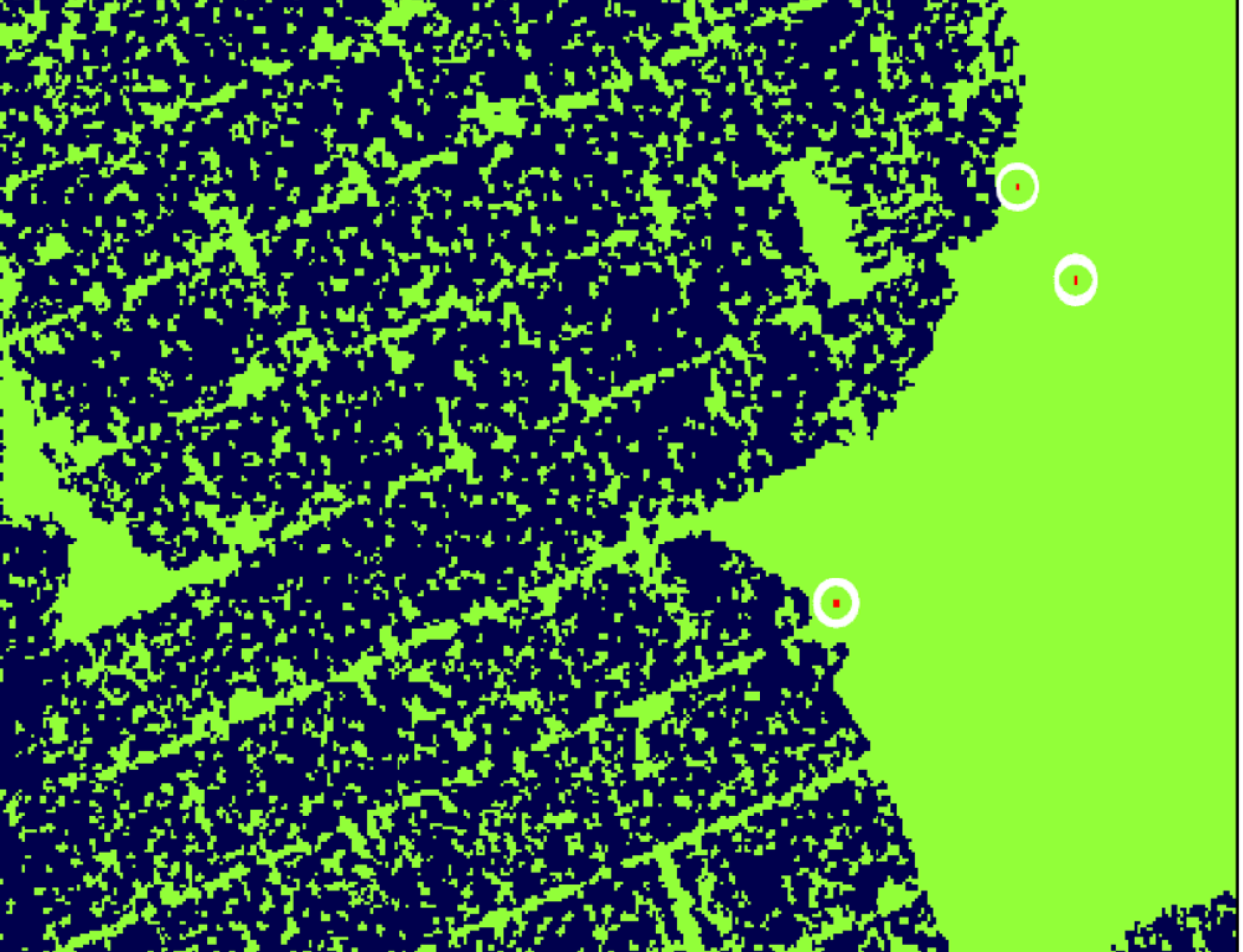
Distance to closest neighbor (g)




Counts
2×10^5
1.5×10^5
10^5
5×10^4
0
−3
−2
−1
0
1
2
3
distance to closest neighbor (arcmin)

completeness(g)

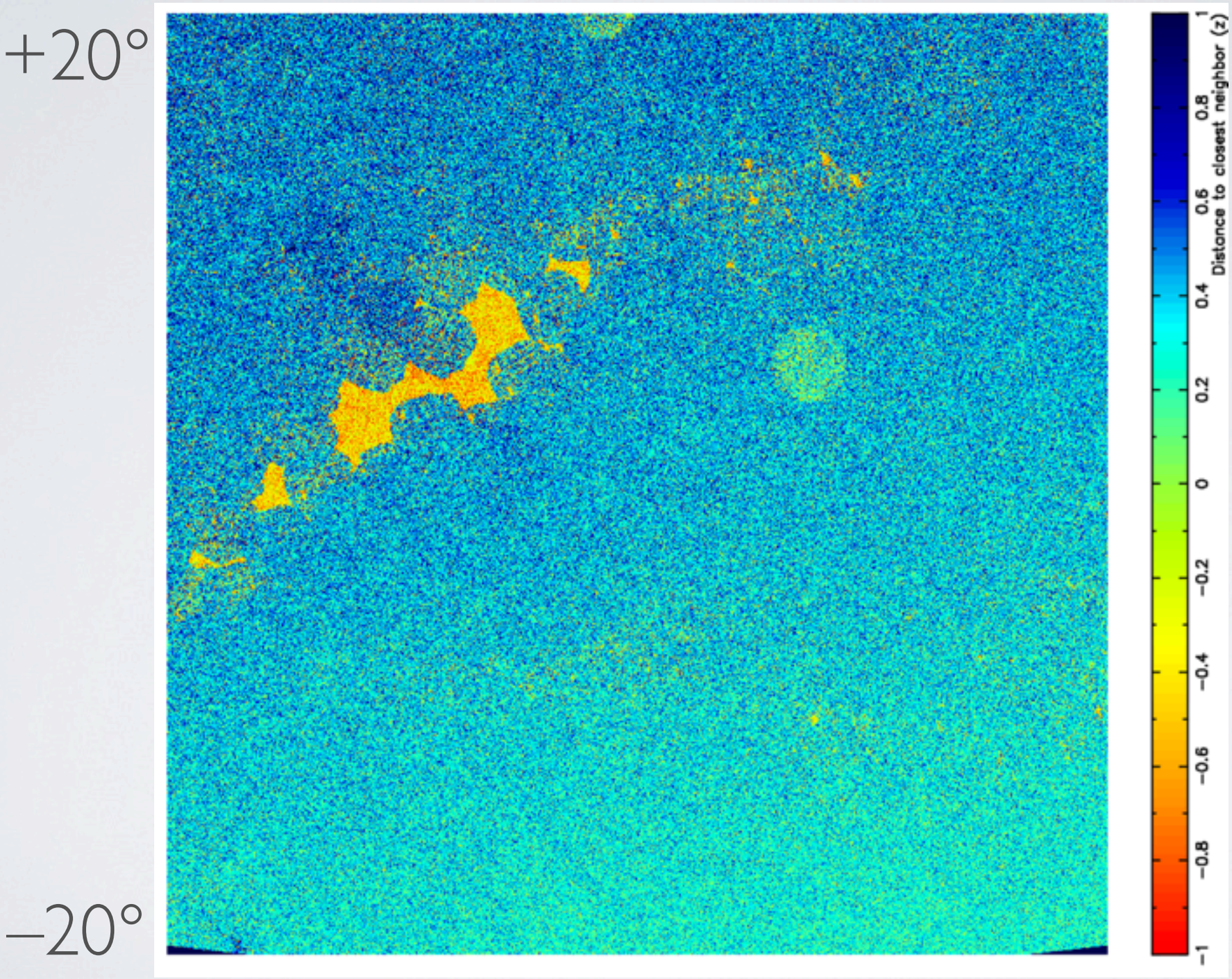


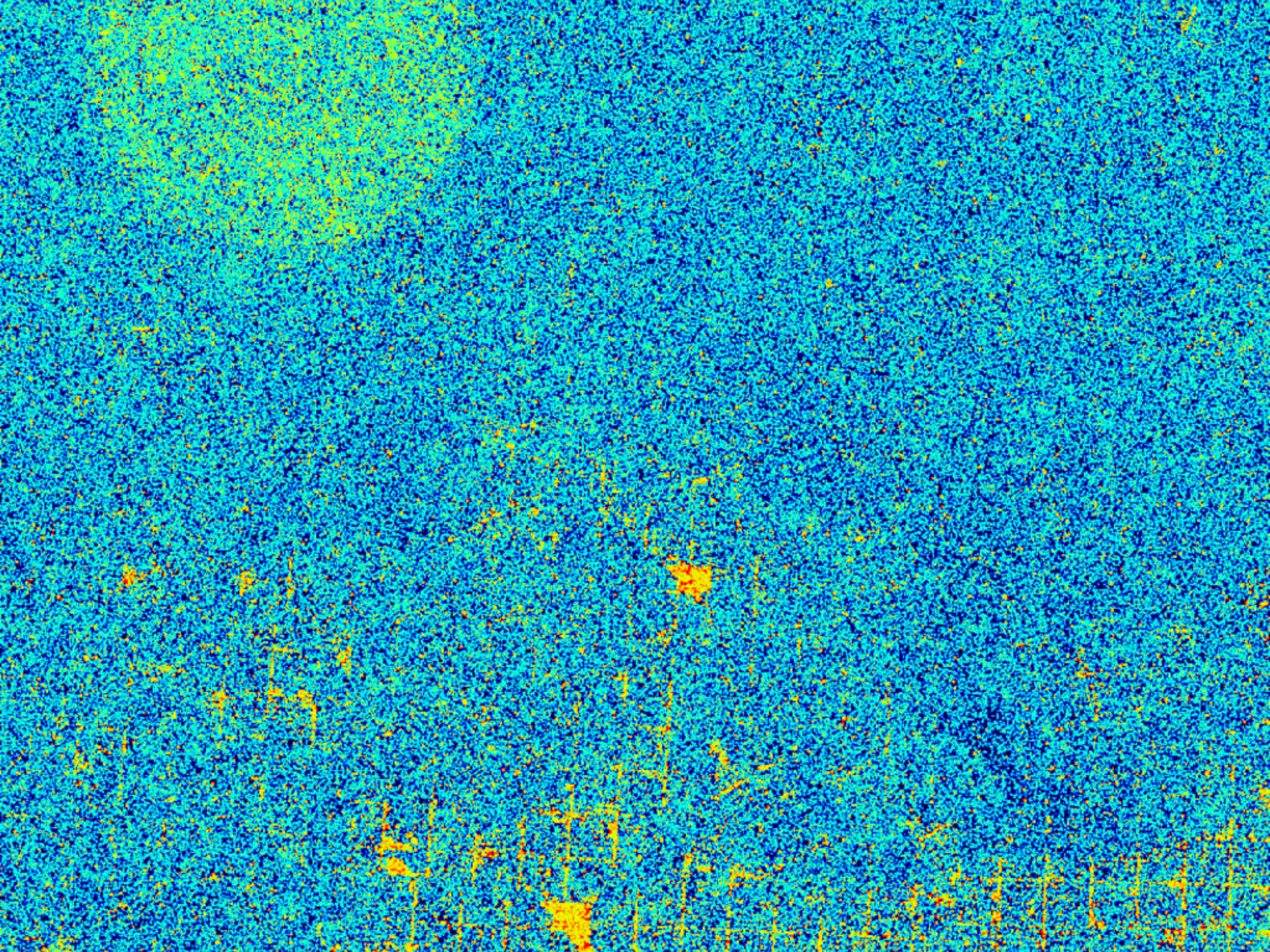


Going global

- Done by blocks of 40x40 deg^2 (?)
  - projection on the tangential plane
- Done for all 5 bands

Around (l,b) = (95°,+40°) – z-band





Going global

- Done by blocks of 40x40 deg^2 (?)
  - projection on the tangential plane
- Done for all 5 bands
- Mask distribution?