

# LC0\_019 Recent NCP EoR observations

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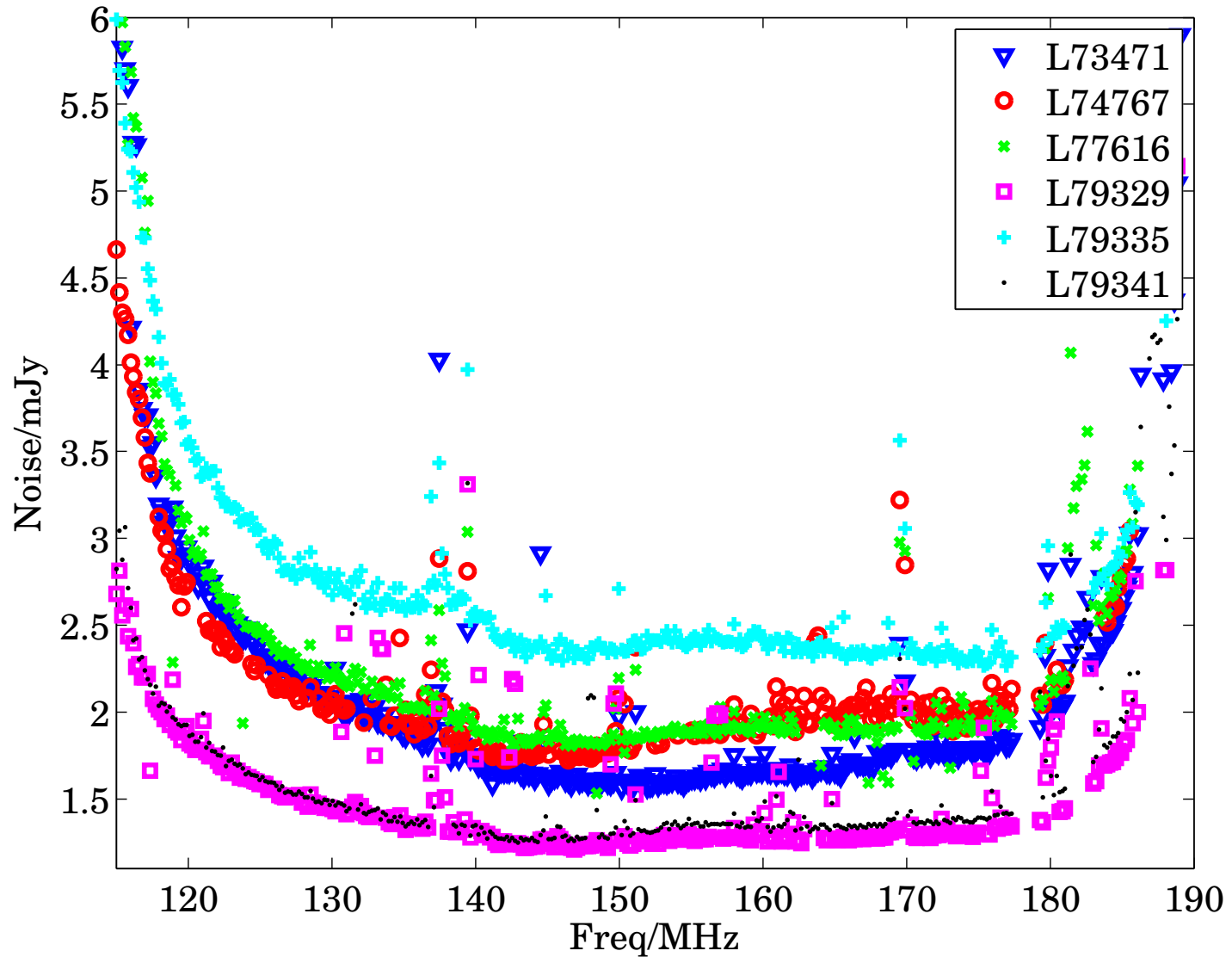
+EoR KSP members

# Summary

Obs. Id	NDPPP	BBS/3ch	SAGECal	Casa	Restore	Noise/ $\mu$ Jy
62990	V	V	V	V	V	140
69537	V	V	V	V	V	250
69538	V	V	V	V	V	158
69540	V	V	V	V	V	174
73471	V	V	V	V	V	106
74767	V	V	V	V	V	130
77616	V	V	V	V	V	118
79329	V	V	V	V	V	80
79335	V	V	V	V	V	140
79341	V	V	V	V	V	80
80475	V	V	V			
80847	V	V	S			
80850	V	S				
80865	V					

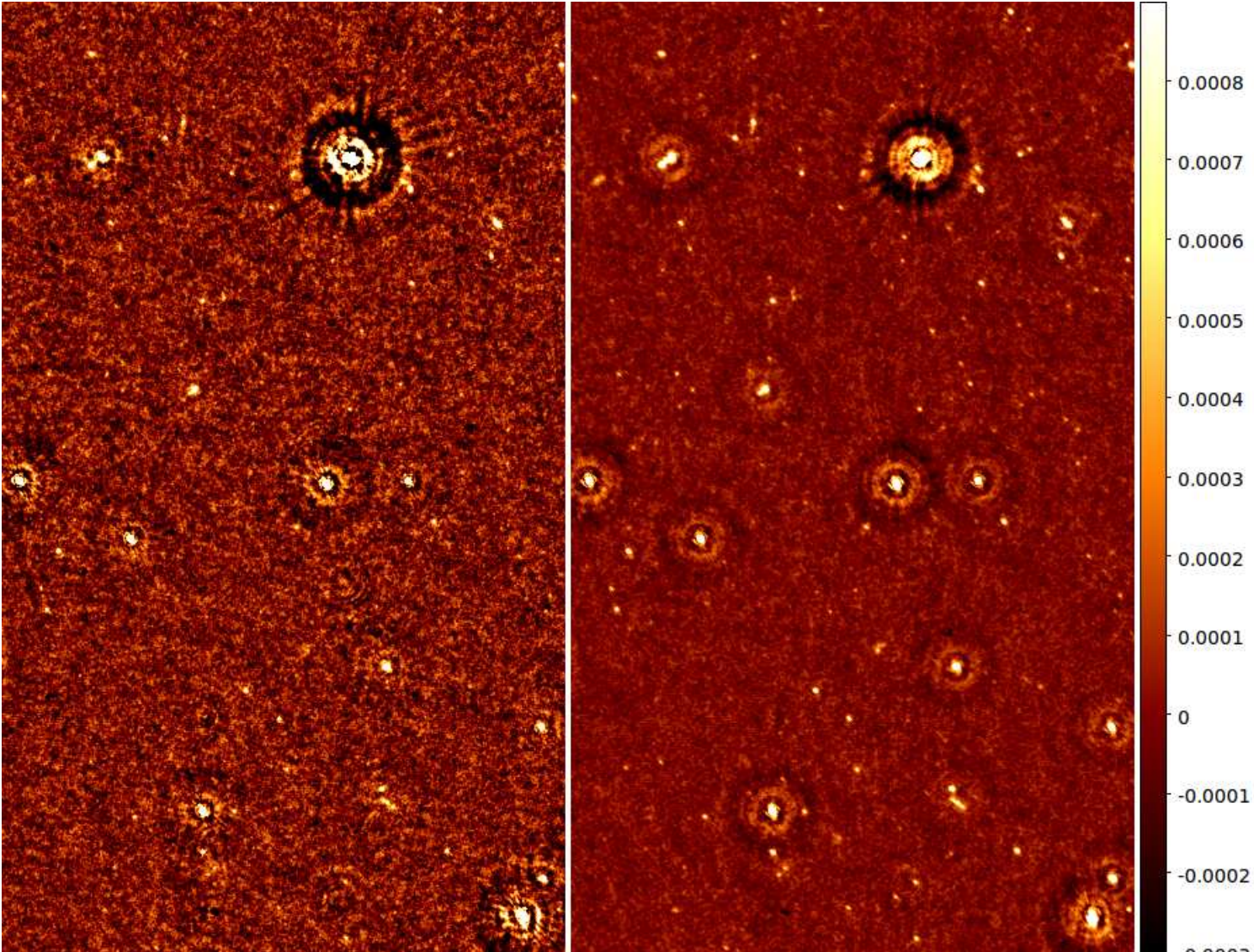
After 70 hours integration, uniformly weighted images, 2'' pixels, 6'' PSF :  
noise 44  $\mu$ Jy

# Noise



SAGECal with 200 directions, 2300 sources

# Noise

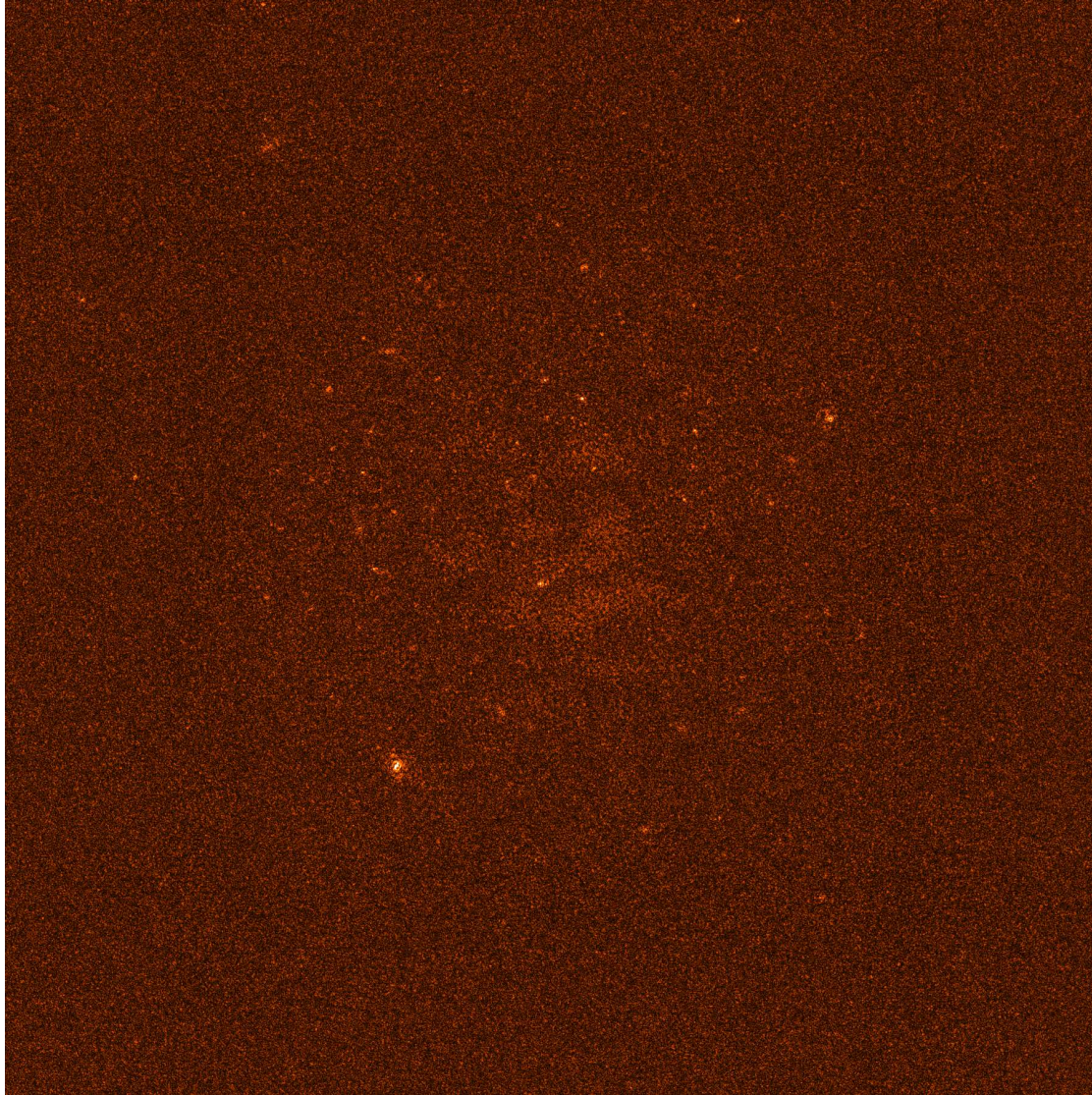


(left) 12 hours, 110  $\mu\text{Jy}$  (right) 70 hours, 44  $\mu\text{Jy}$

# RM Synthesis

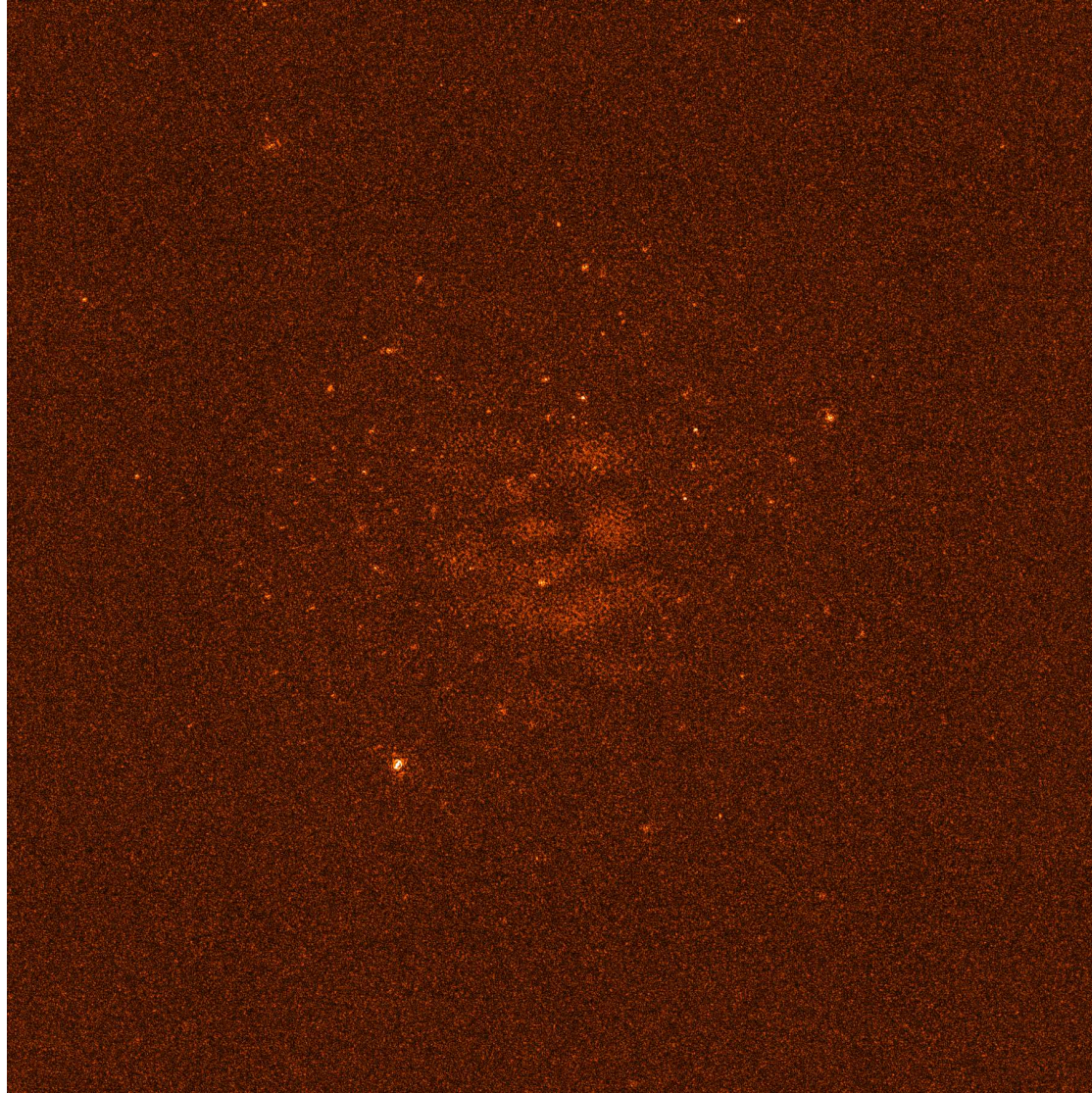
- Images  $< 3000\lambda$ ,  $15''$  pixels, using Casa.
- RM synthesis using code by Michael Bell. RM in  $[-60, 60]$   $\text{rad m}^{-2}$ , step size  $0.2 \text{ rad m}^{-2}$ .
- Only one 12 hr observation.
- Diffuse structure at a low Faraday depth, peak  $\approx 200 \mu\text{Jy}$ .

# RM Cube



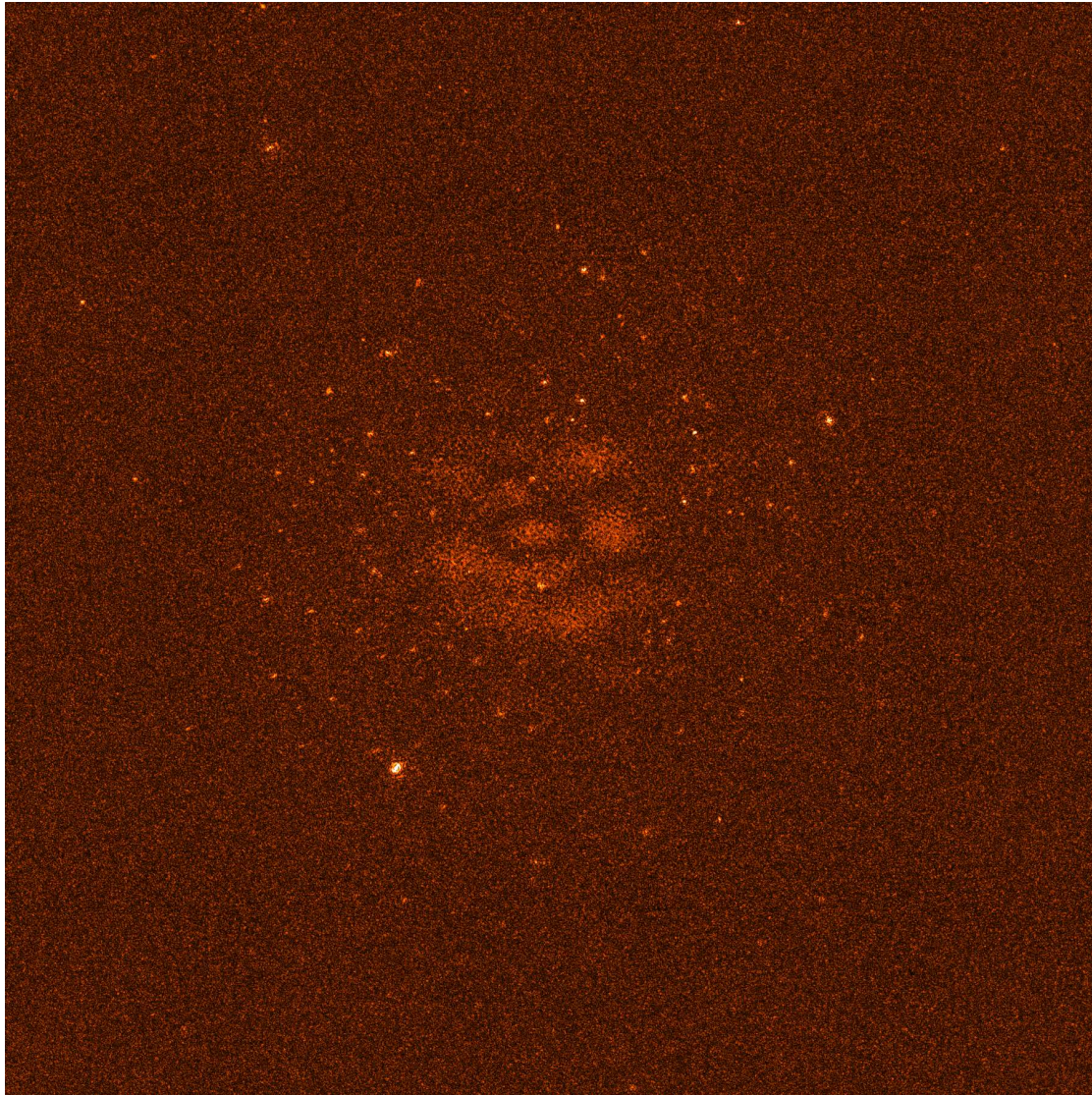
RM=-0.4 rad m<sup>-2</sup>

# RM Cube



RM=-0.2 rad m<sup>-2</sup>

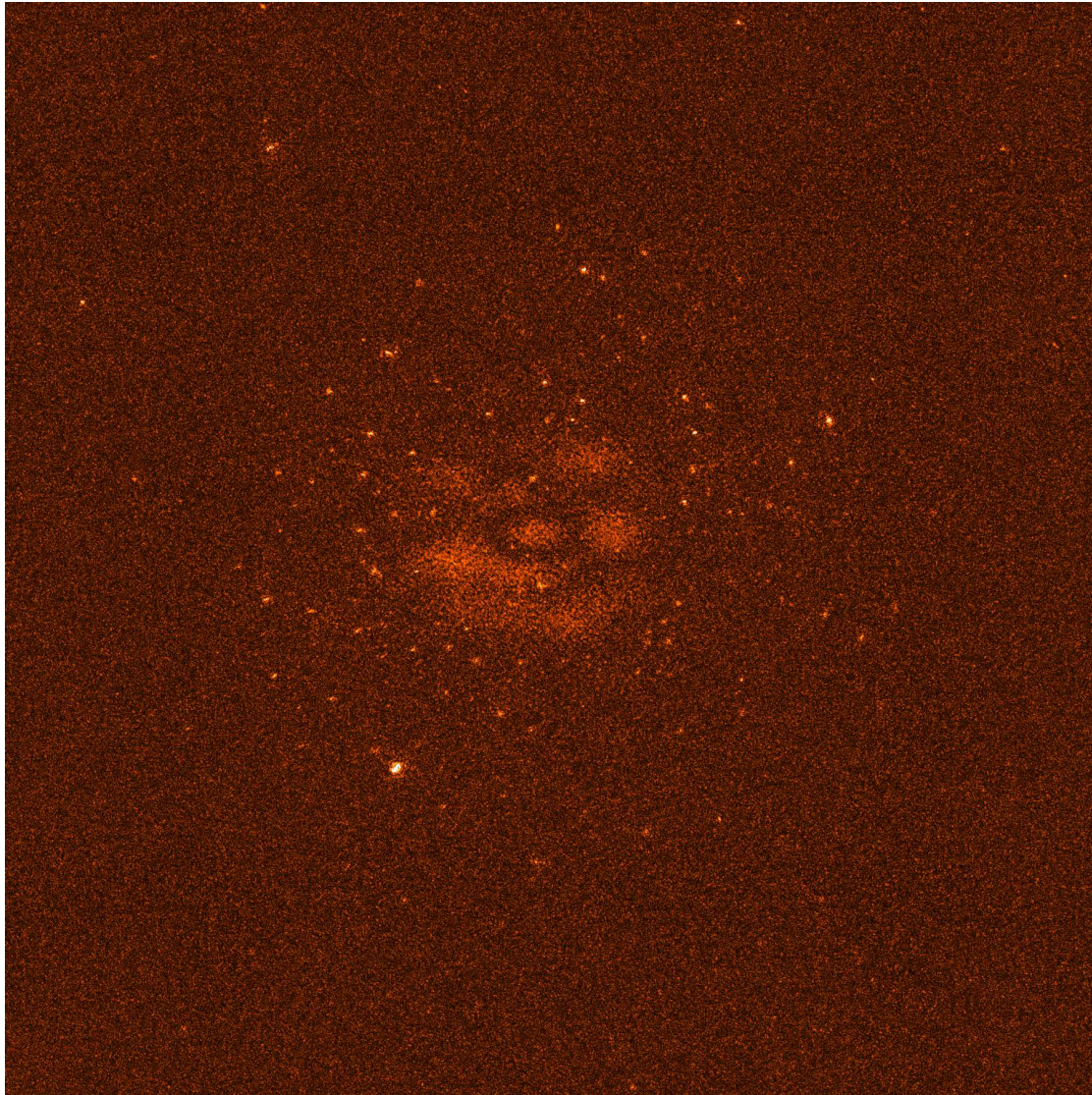
# RM Cube



RM=0.0 rad m<sup>-2</sup>

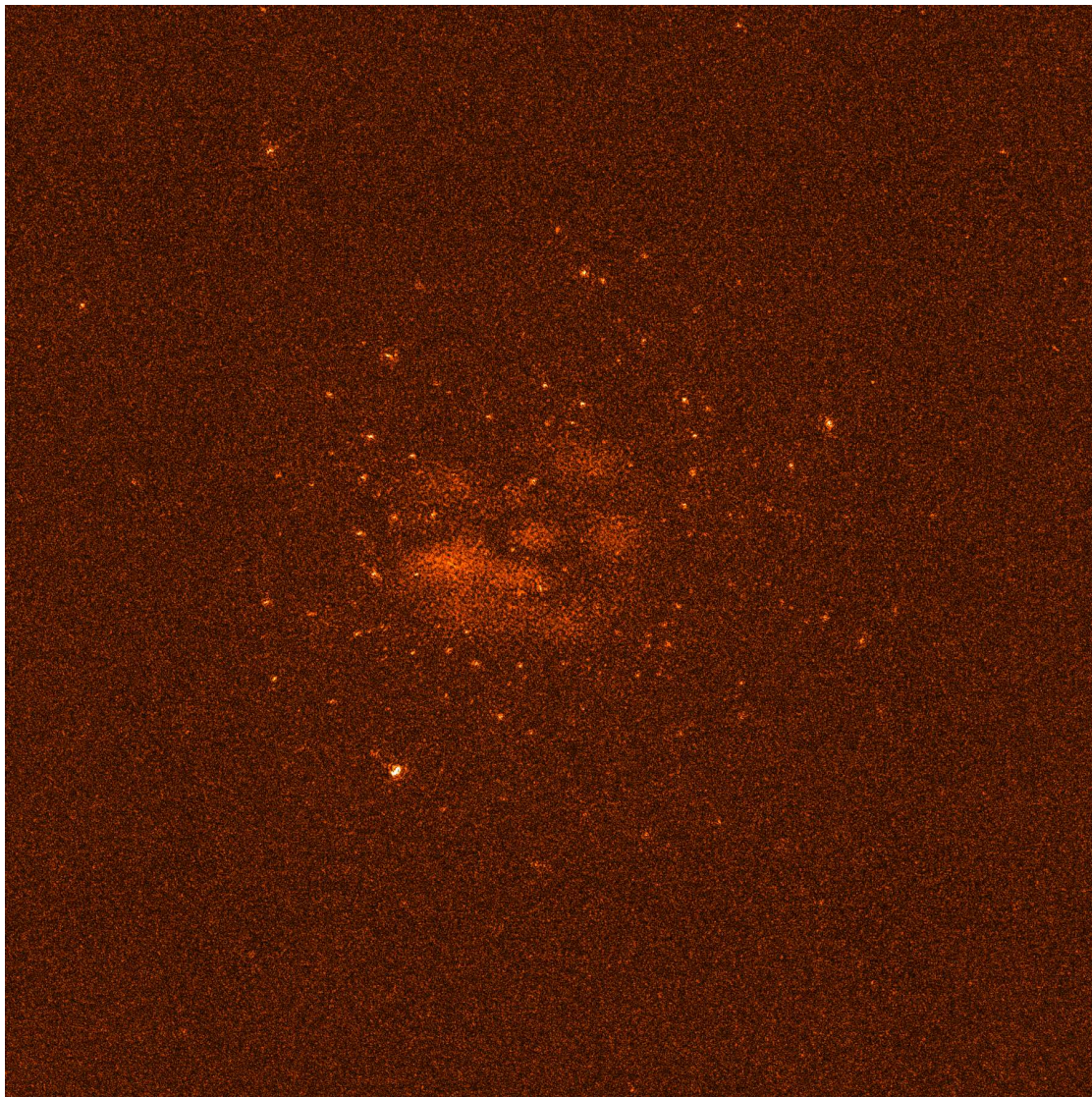


# RM Cube



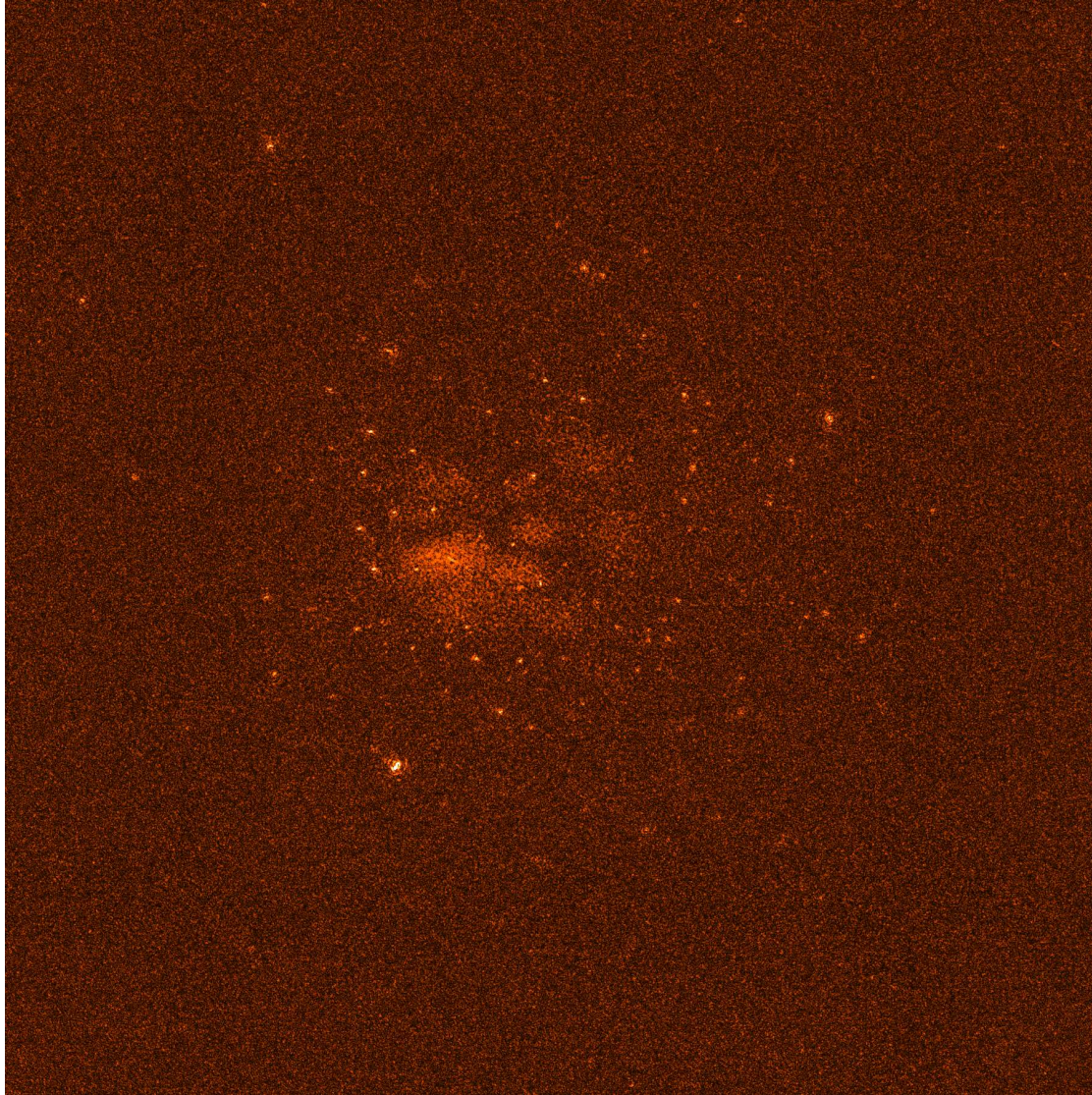
RM=0.2 rad m<sup>-2</sup>

# RM Cube



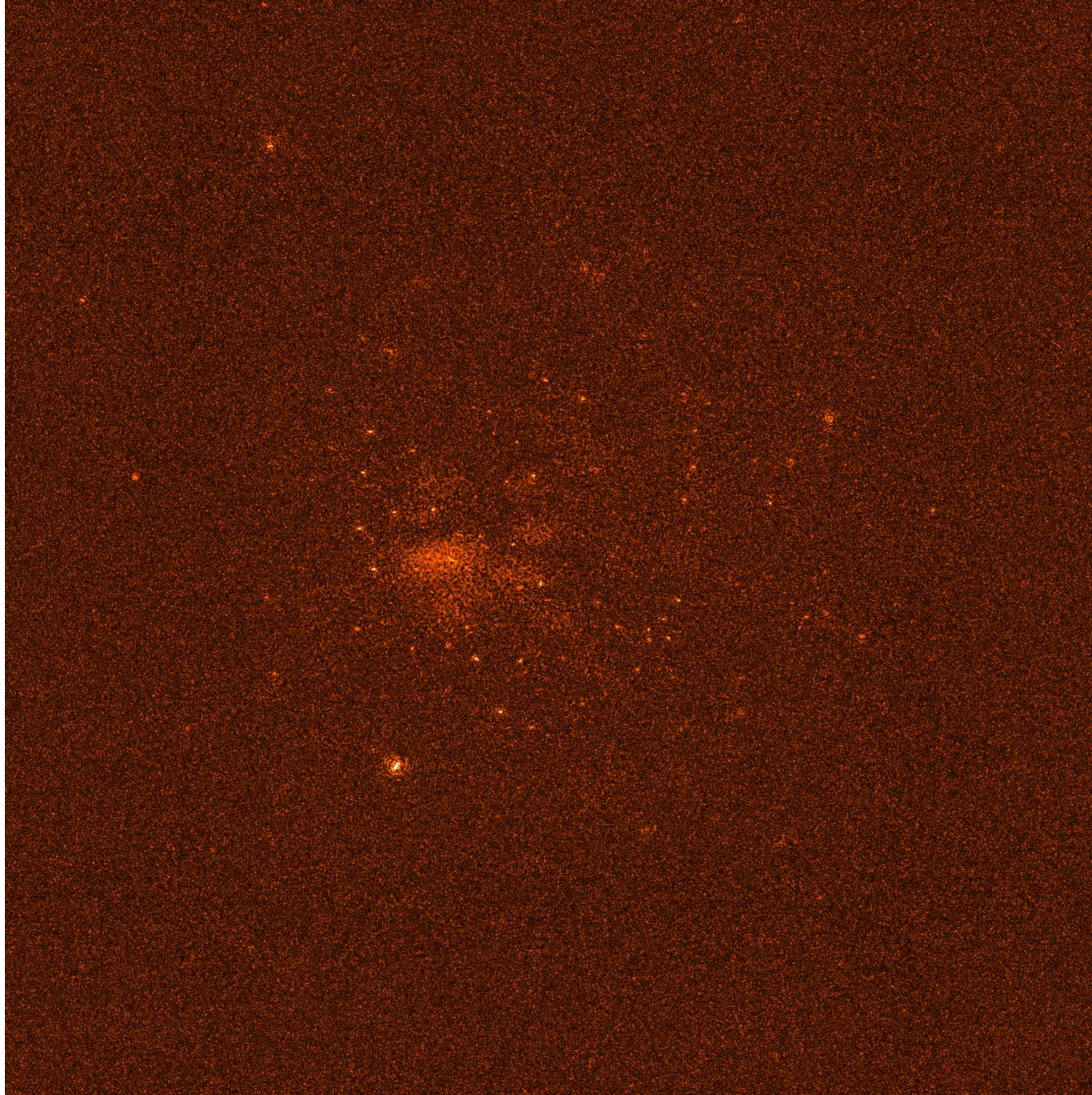
RM=0.4 rad m<sup>-2</sup>

# RM Cube



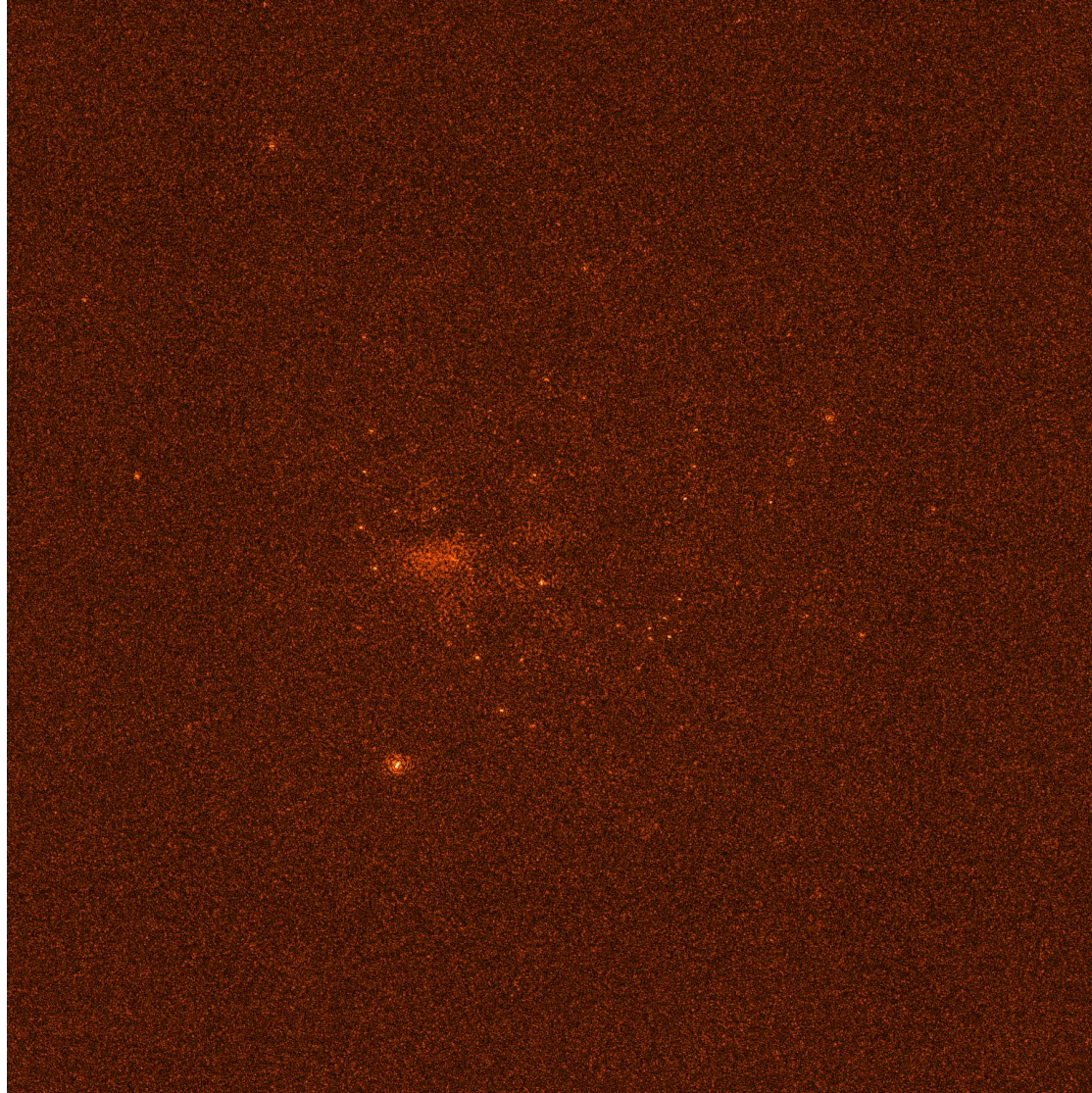
RM=0.6 rad m<sup>-2</sup>

# RM Cube



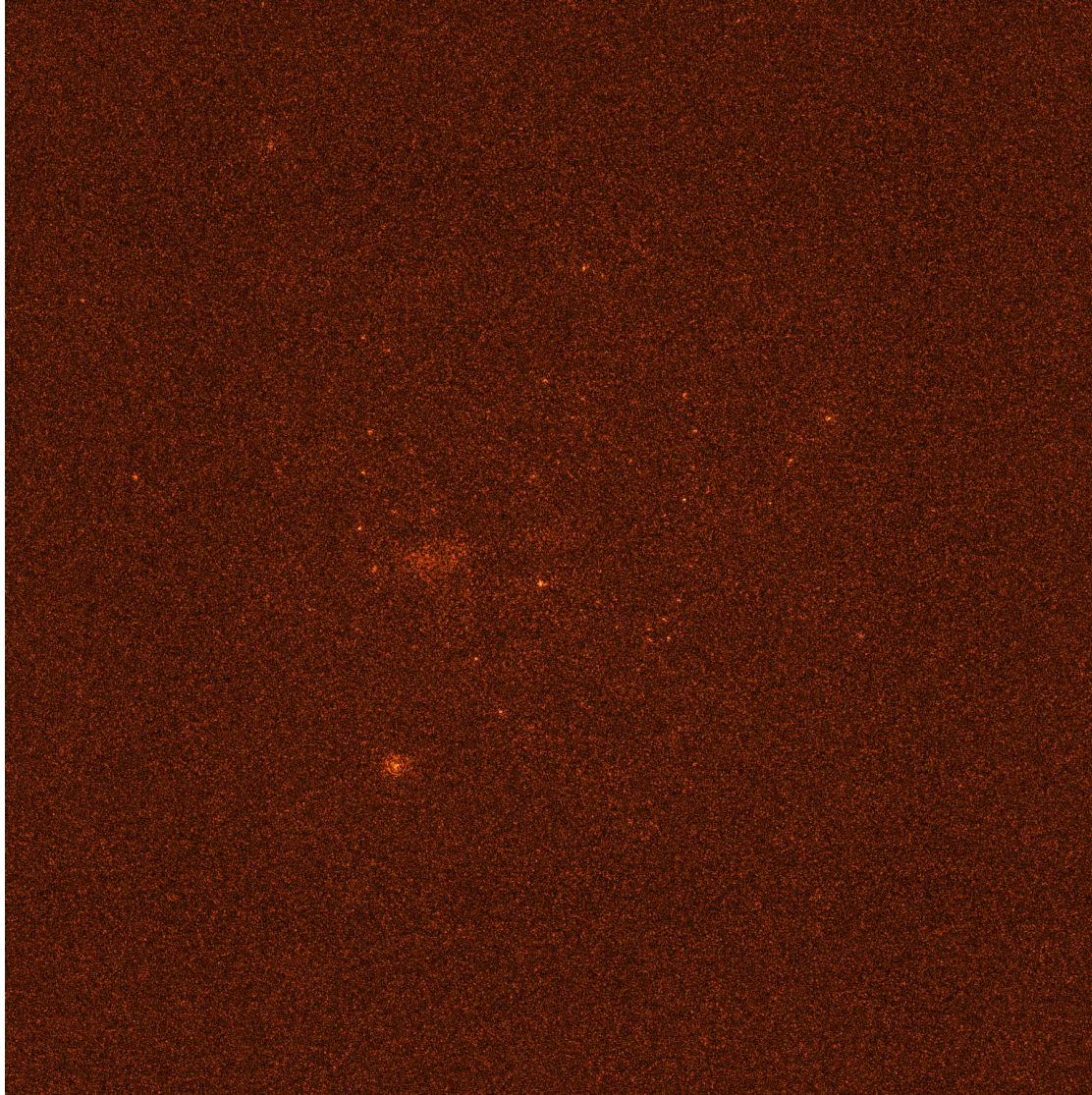
RM=0.8 rad m<sup>-2</sup>

# RM Cube



RM=1.0 rad m<sup>-2</sup>

# RM Cube



RM=1.2 rad m<sup>-2</sup>