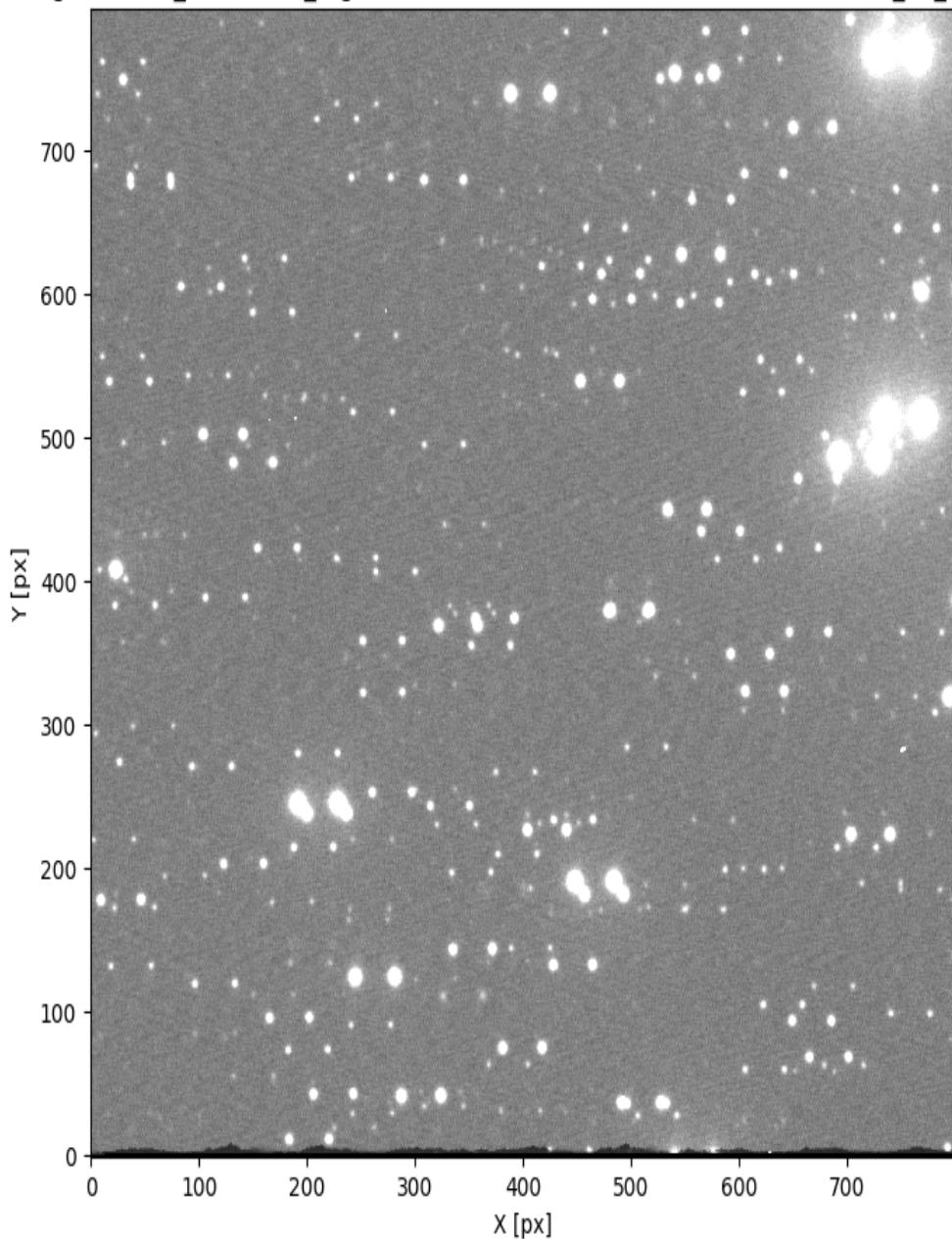
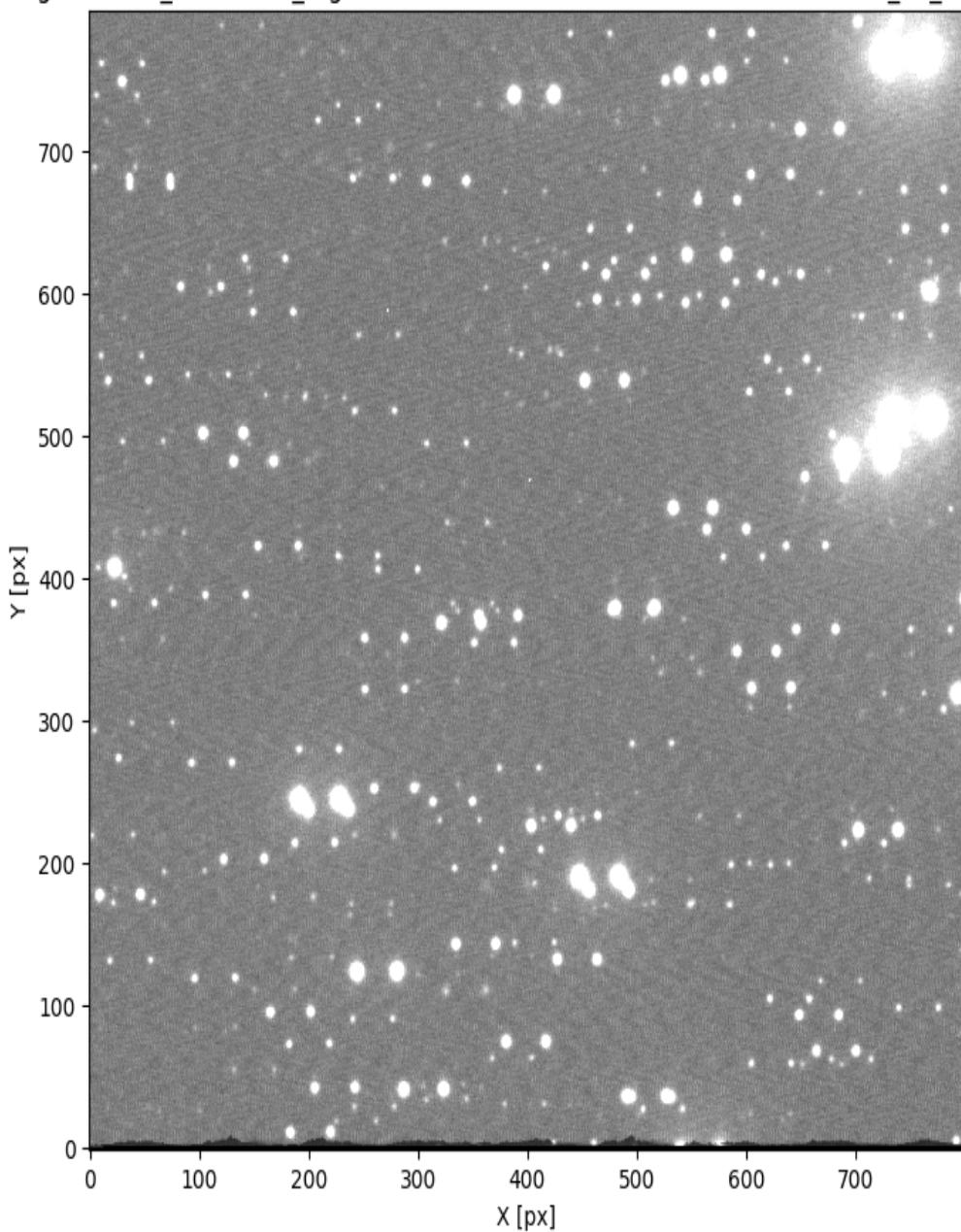


# 1. Imágenes originales

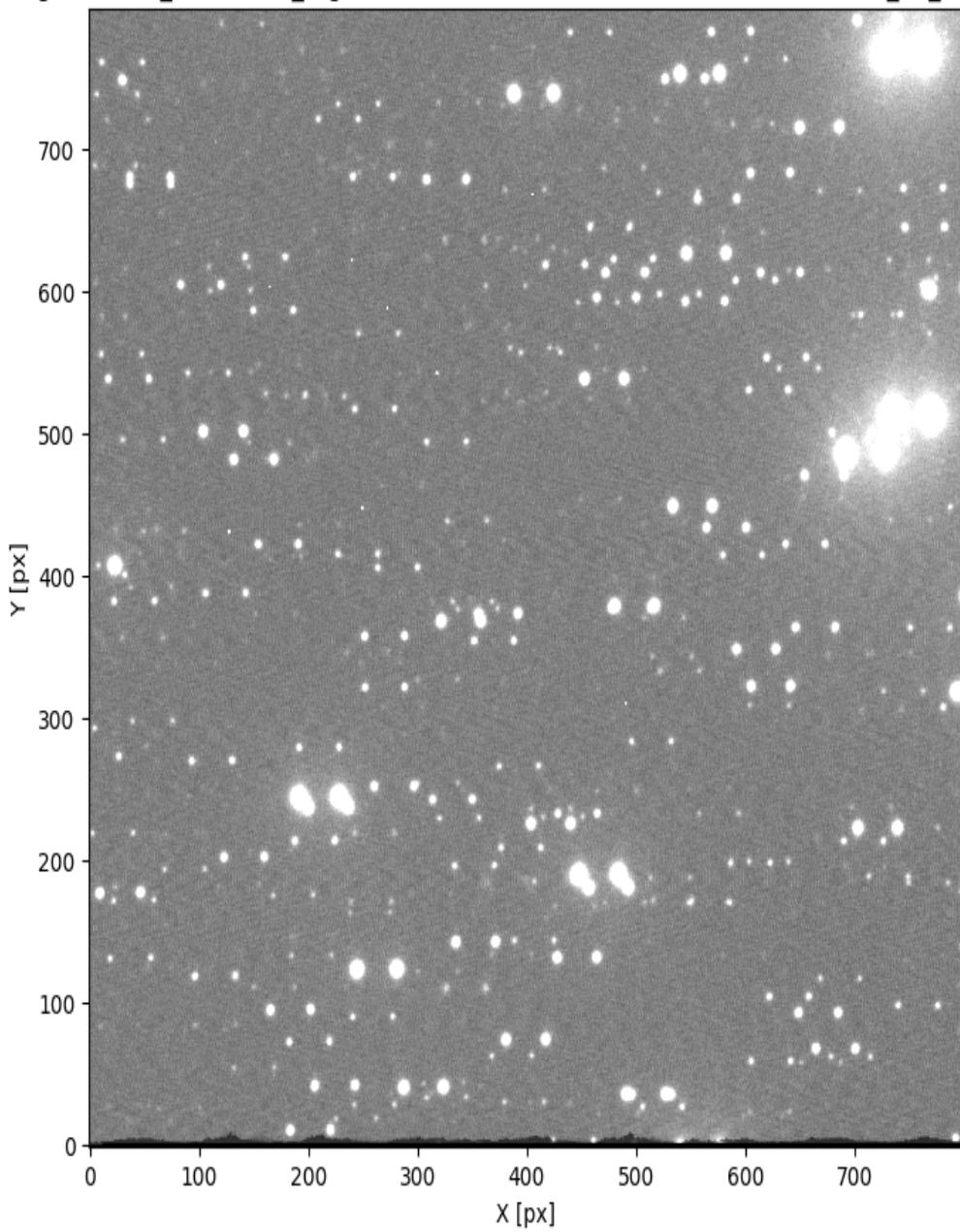
Reference Image noche1\_20230720\_organize/1H1936+541/BessellR/caf-20230721-00\_43\_08-sci-blap\_b\_f.fits



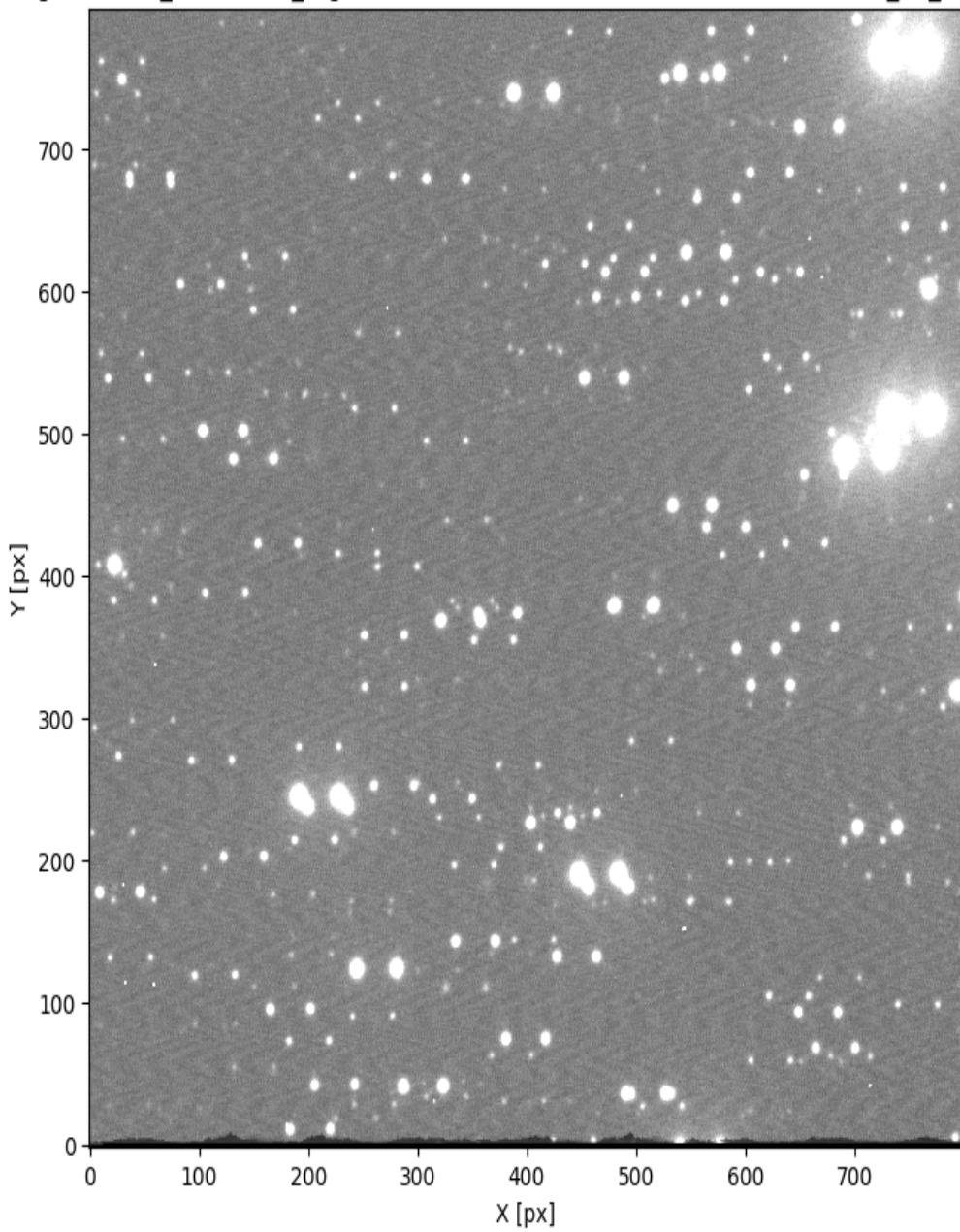
Original Image noche1\_20230720\_organize/1H1936+541/BesselR/caf-20230721-00\_44\_17-sci-blap\_b\_f.fits



Original Image noche1\_20230720\_organize/1H1936+541/BessellR/caf-20230721-00\_45\_26-sci-blap\_b\_f.fits

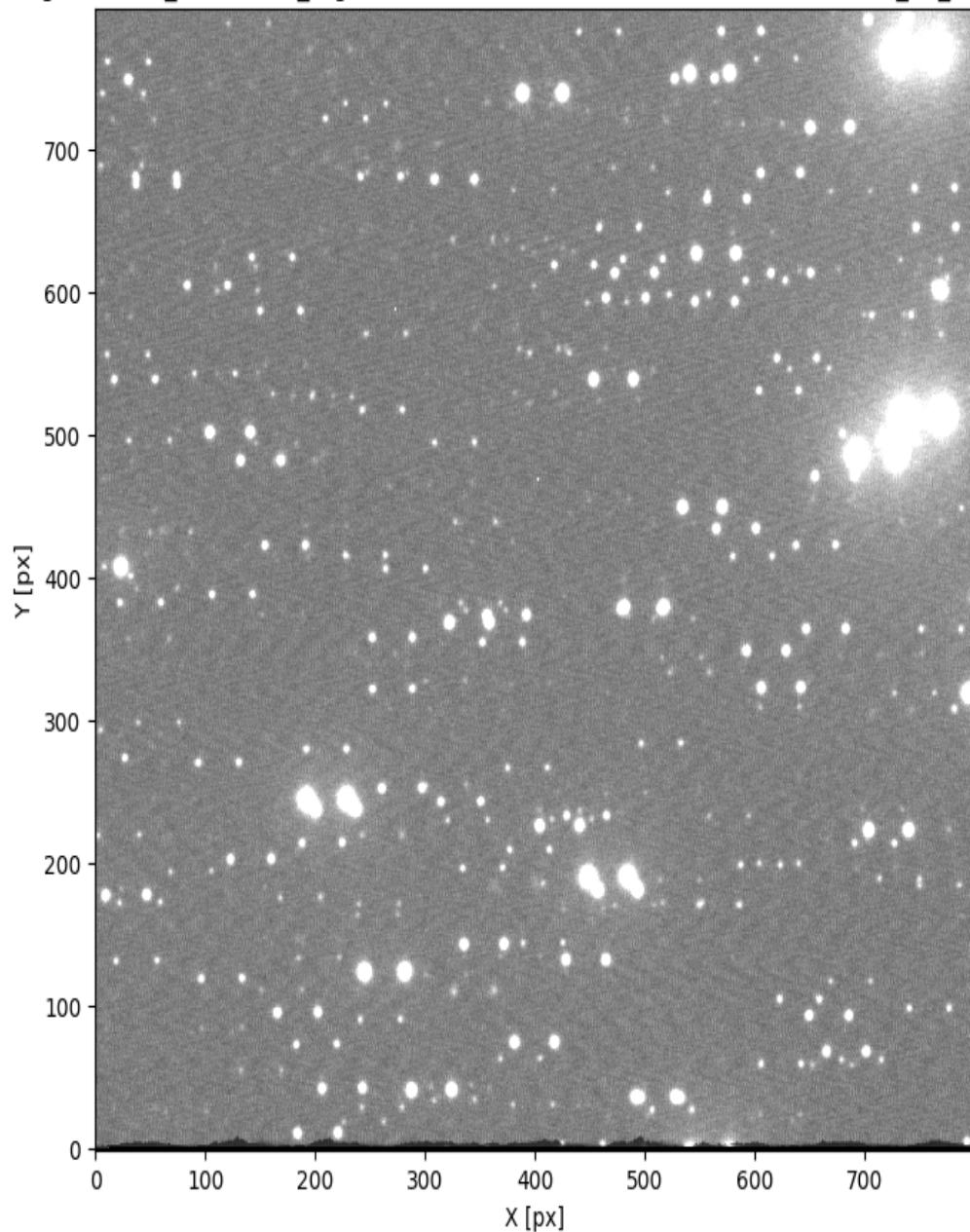


Original Image noche1\_20230720\_organize/1H1936+541/BesselR/caf-20230721-00\_46\_35-sci-blap\_b\_f.fits

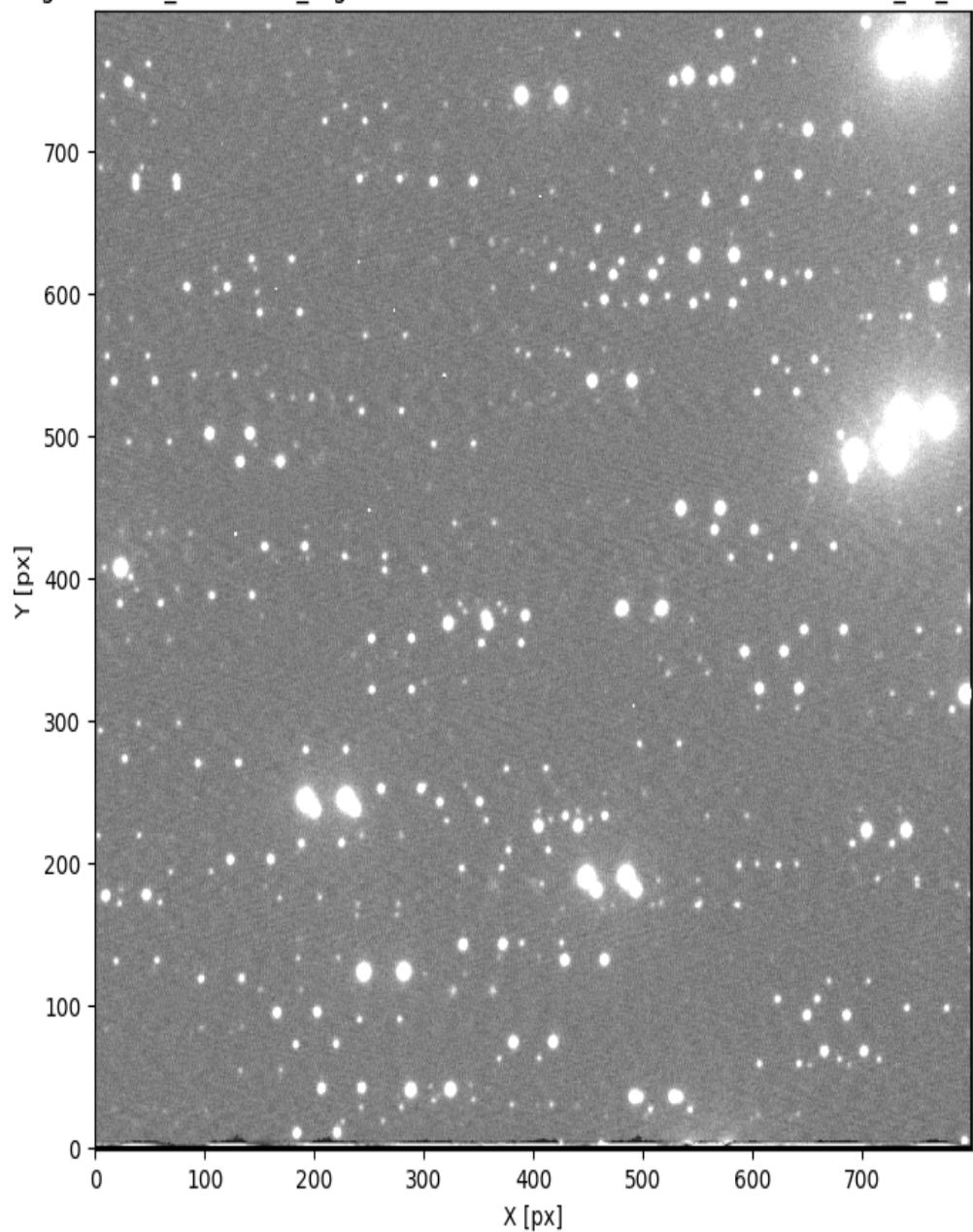


## 2. Imágenes alineadas

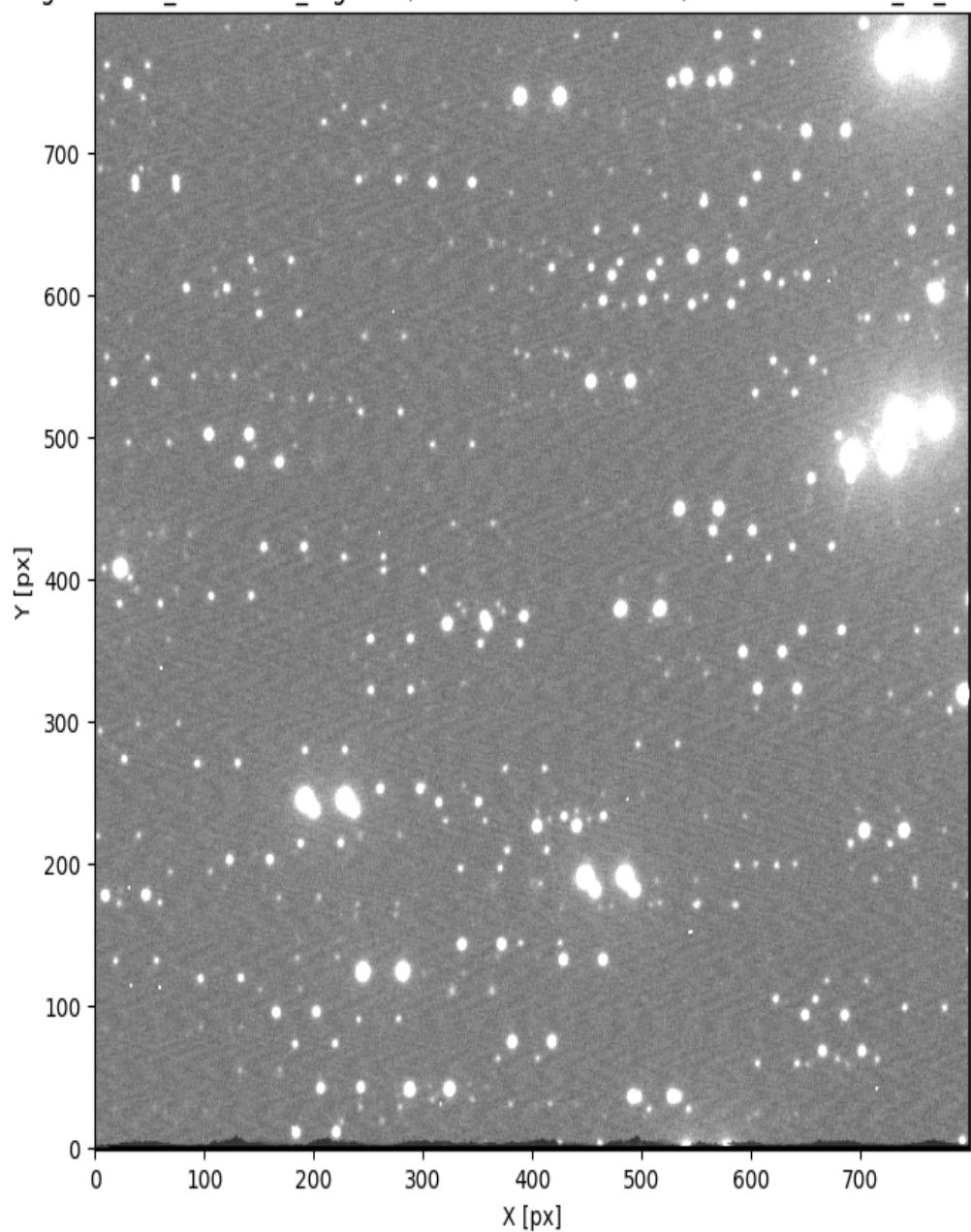
Aligned Image noche1\_20230720\_organize/1H1936+541/BessellR/caf-20230721-00\_44\_17-sci-blap\_b\_f.fits



Aligned Image noche1\_20230720\_organize/1H1936+541/BessellR/caf-20230721-00\_45\_26-sci-blap\_b\_f.fits

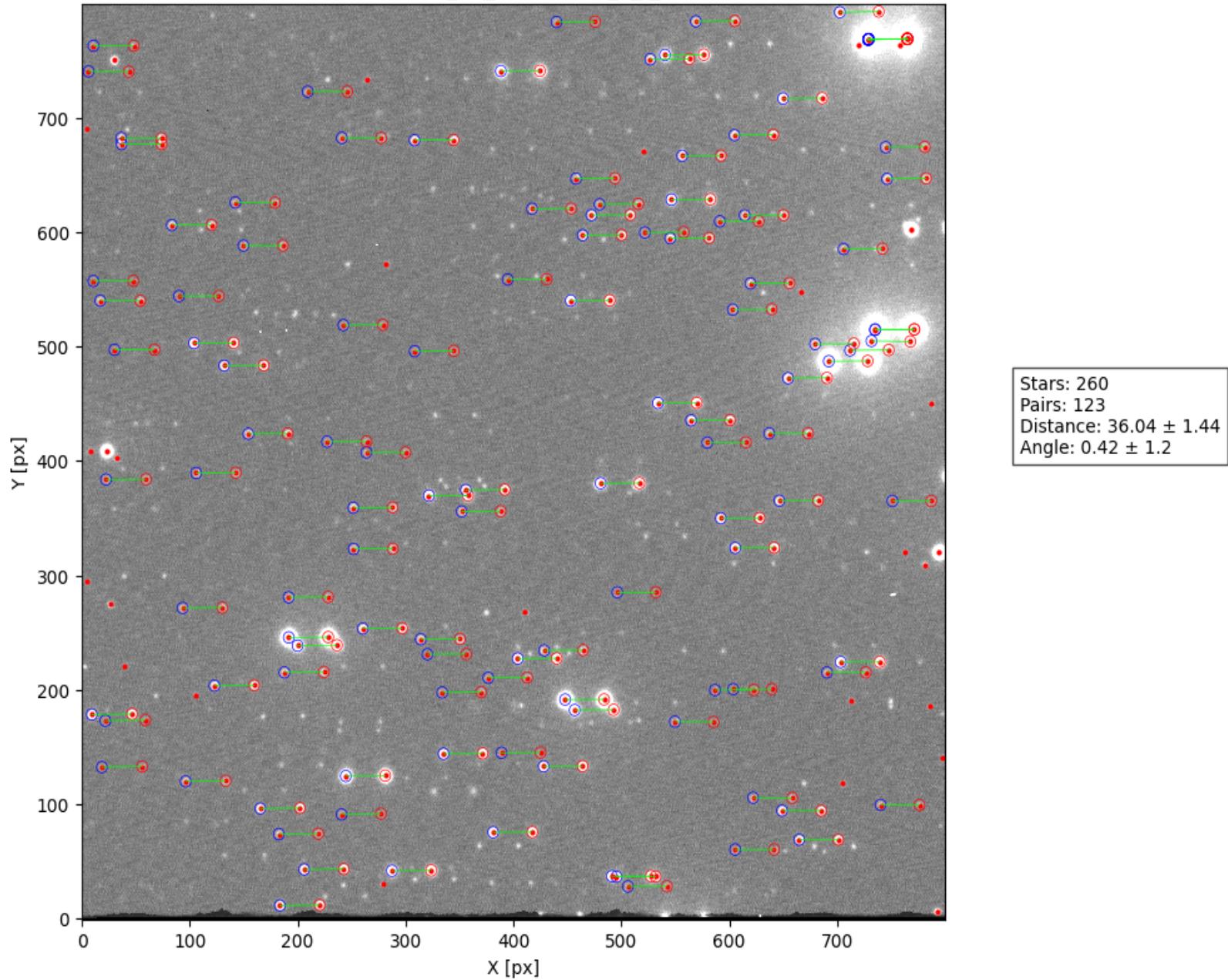


Aligned Image noche1\_20230720\_organize/1H1936+541/BesselR/caf-20230721-00\_46\_35-sci-blap\_b\_f.fits

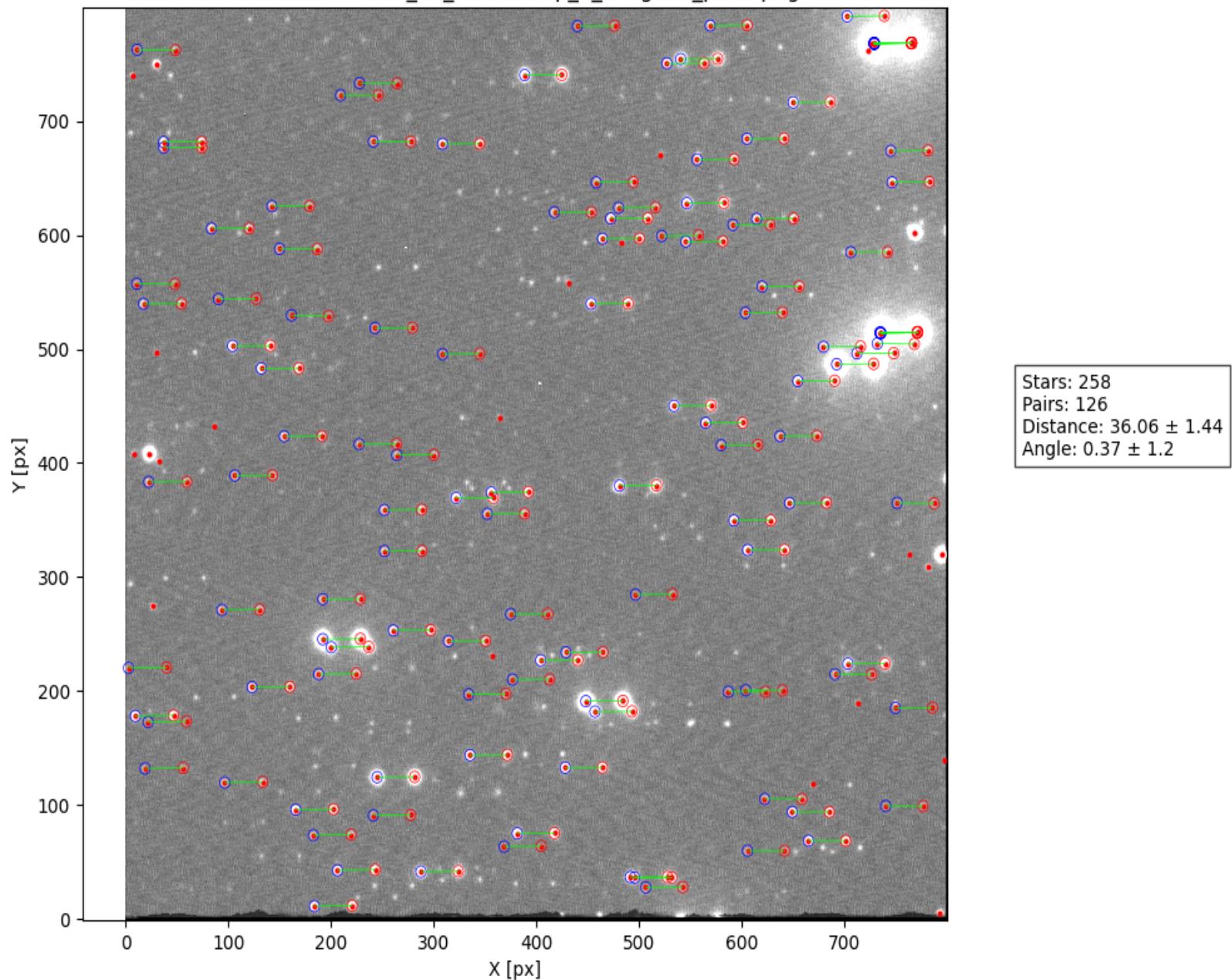


### 3. Imágenes con pares identificados

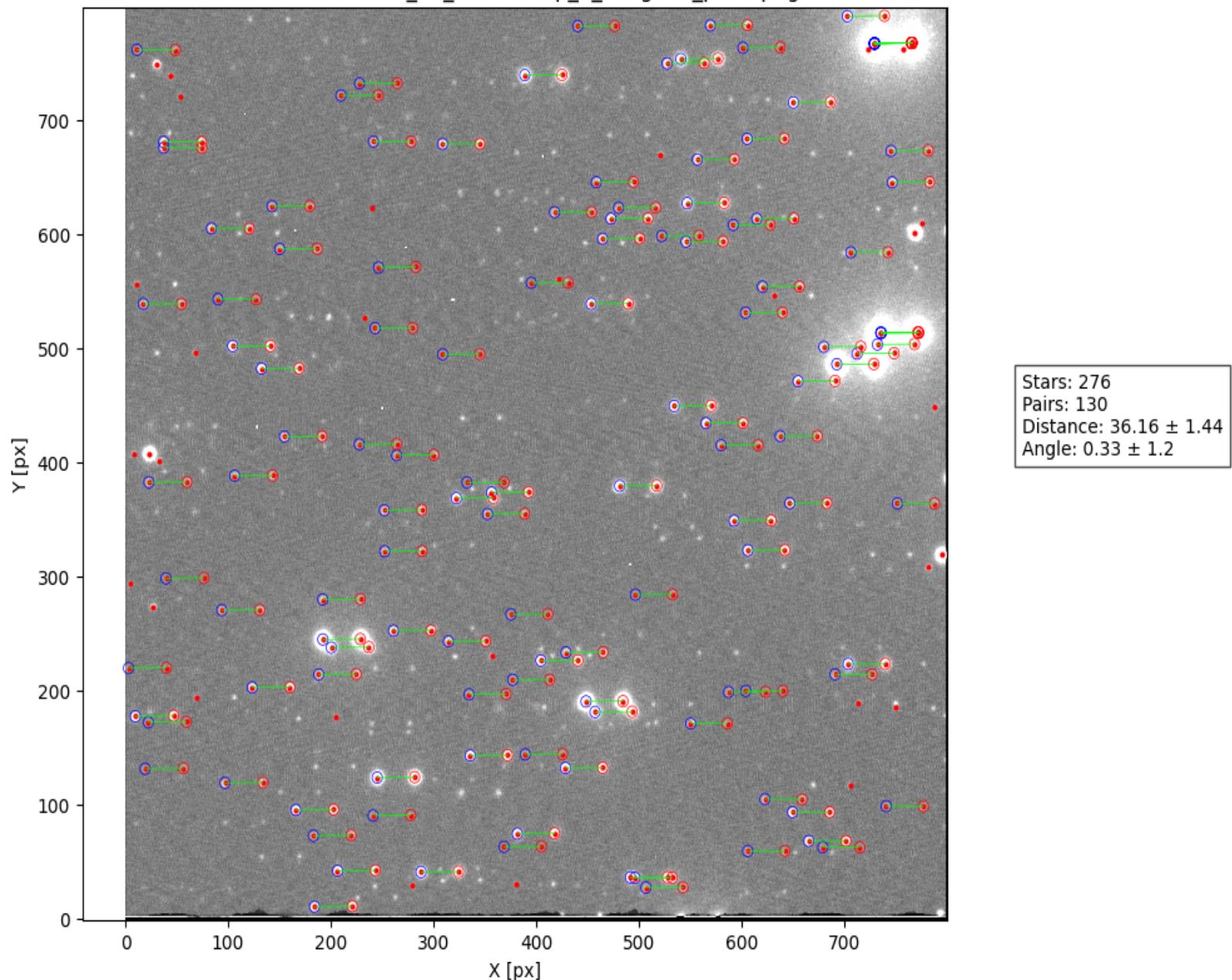
caf-20230721-00\_43\_08-sci-blap\_b\_f\_pairs.png



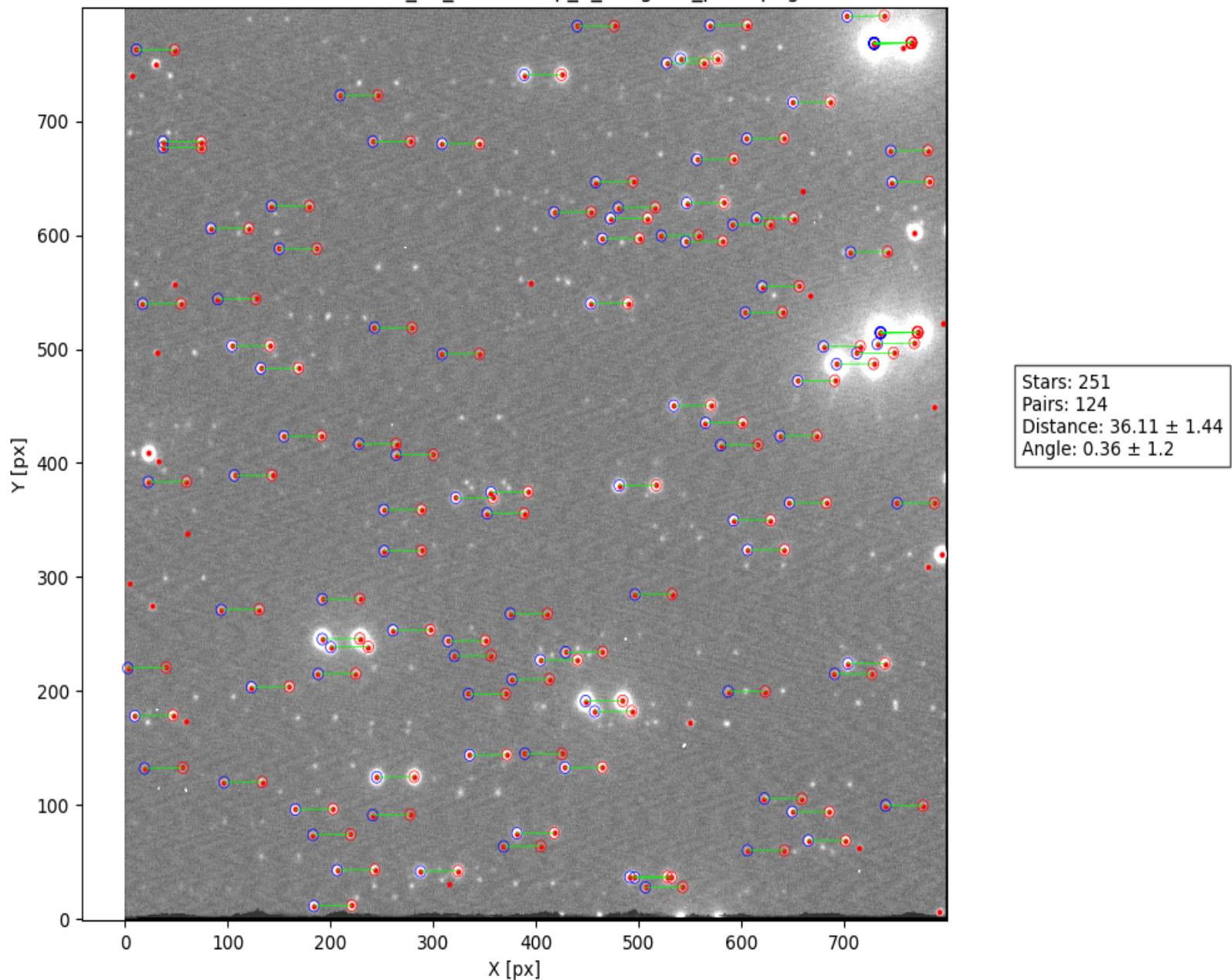
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caf-20230721-00\_45\_26-sci-blap\_b\_f-aligned\_pairs.png

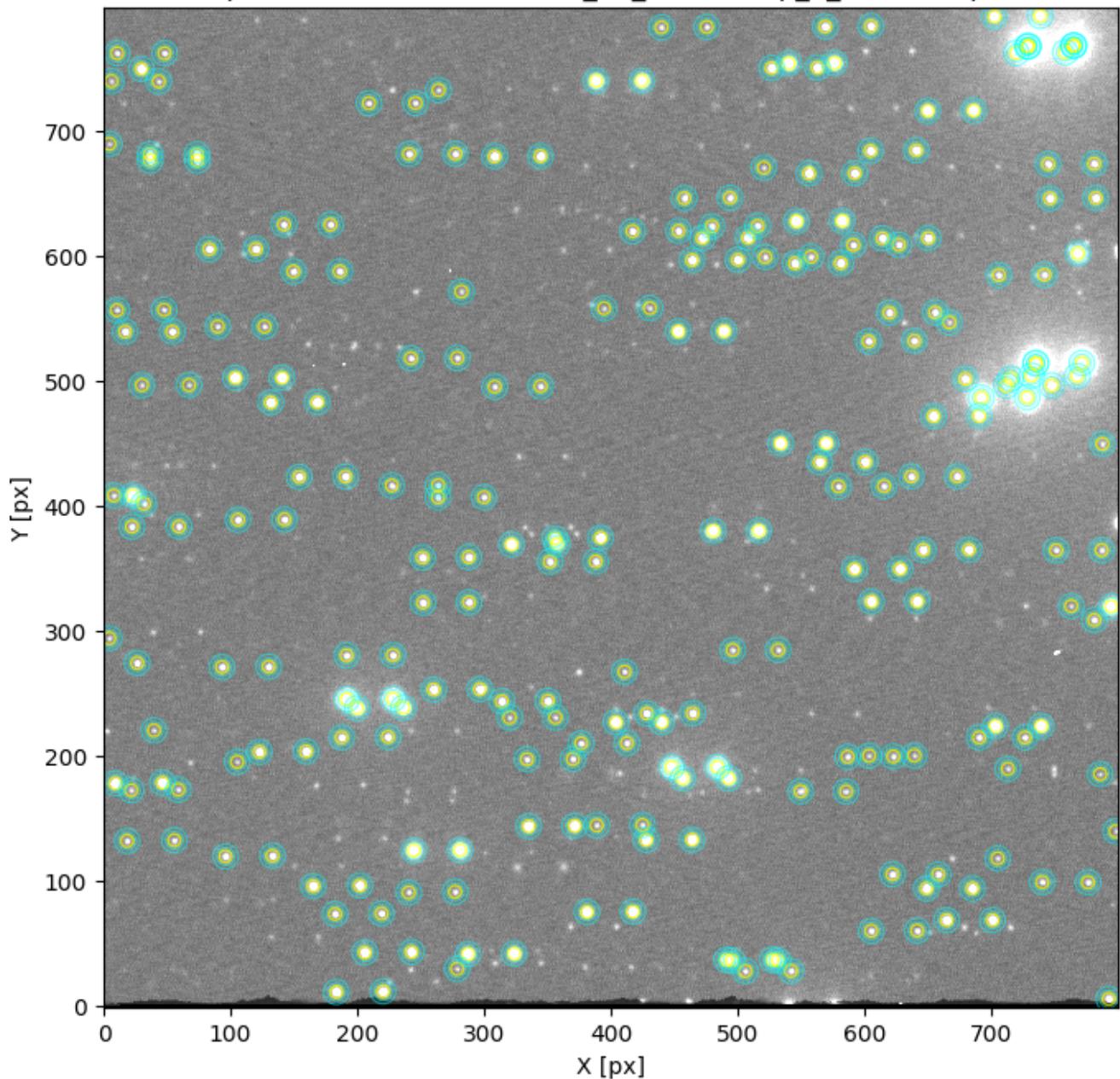


caf-20230721-00\_46\_35-sci-blap\_b\_f-aligned\_pairs.png

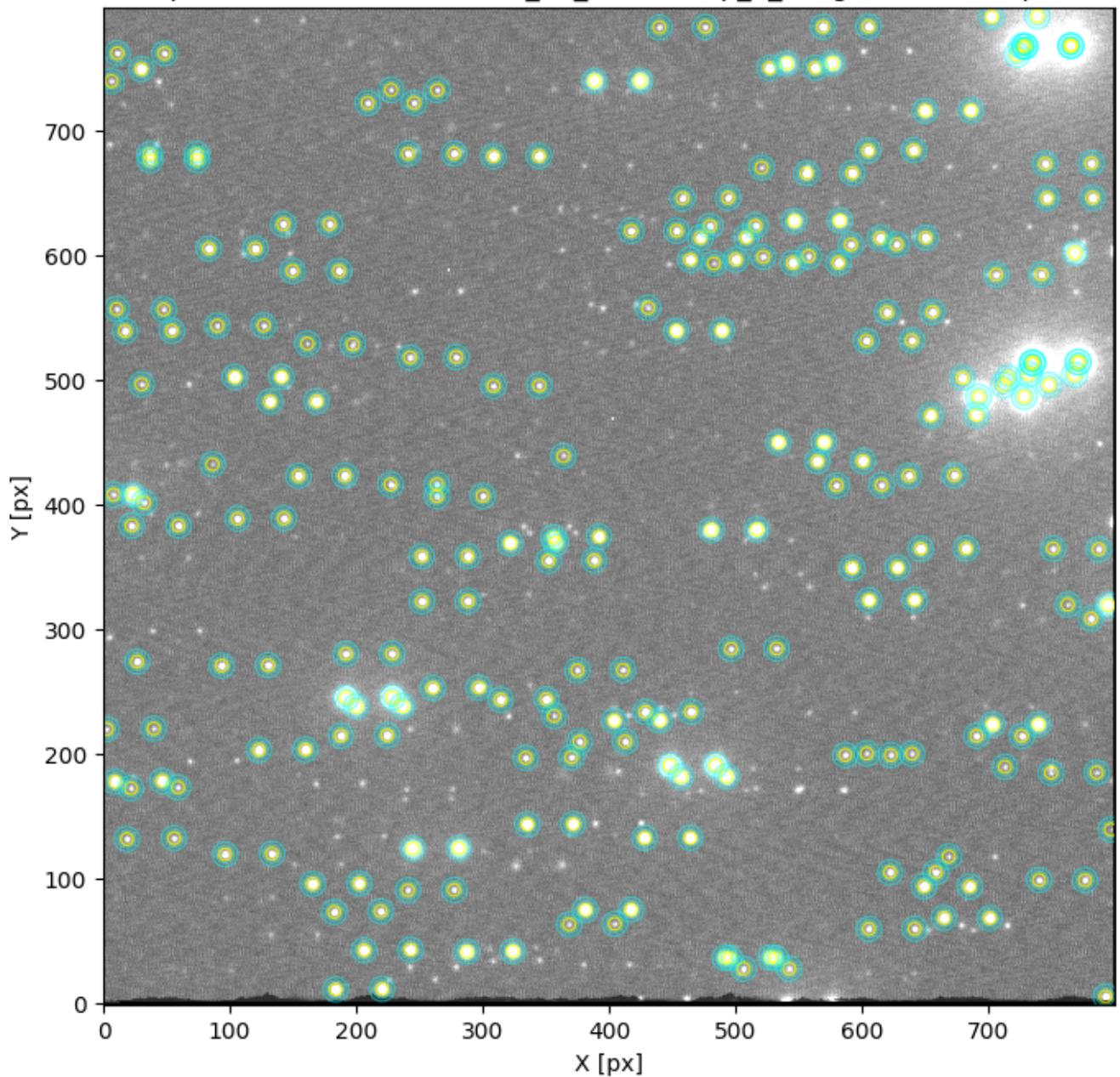


## 4. Fotometría — Aperturas

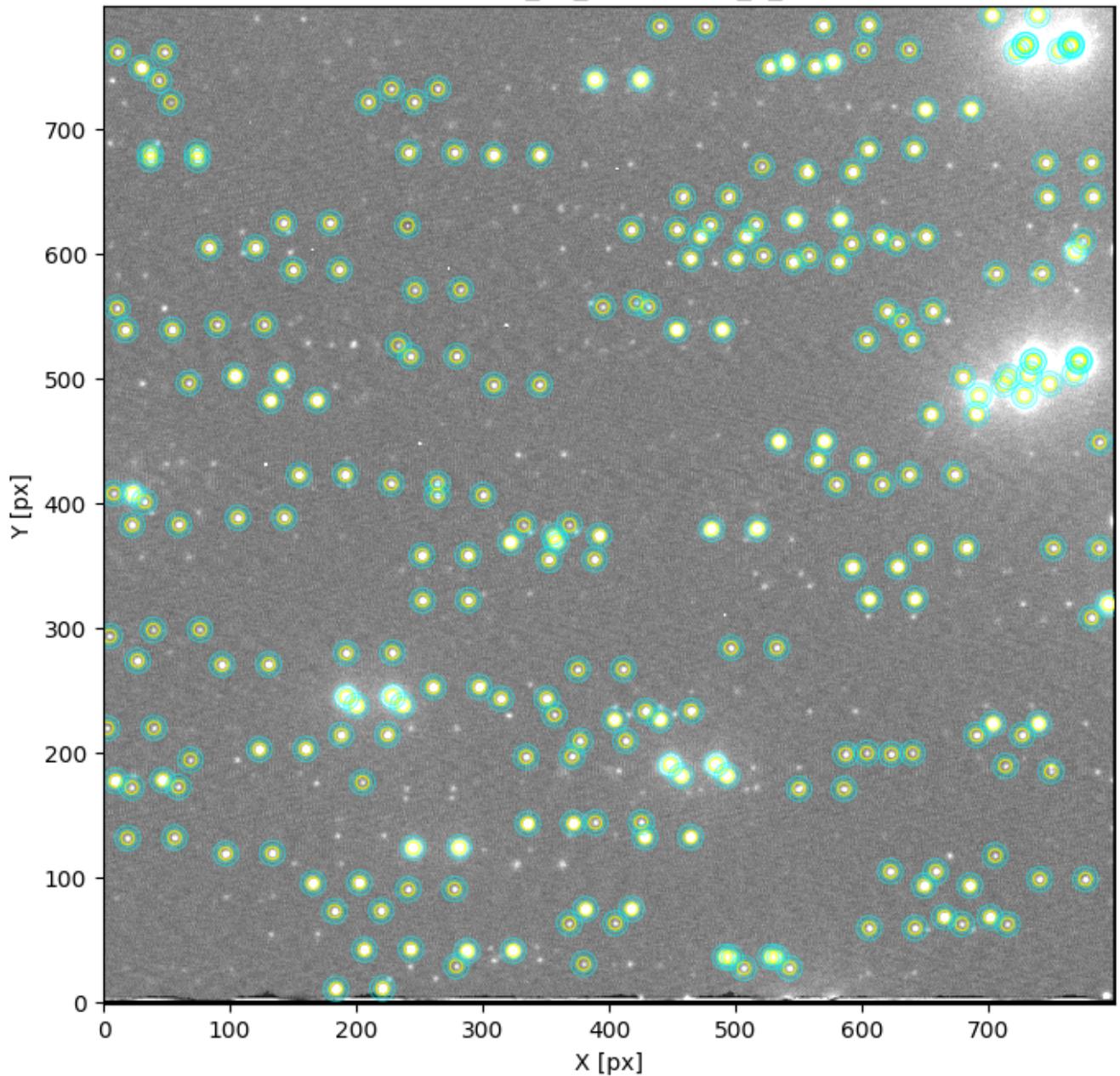
Apertures caf-20230721-00\_43\_08-sci-blap\_b\_f.fits ( $r=5\text{px}$ )



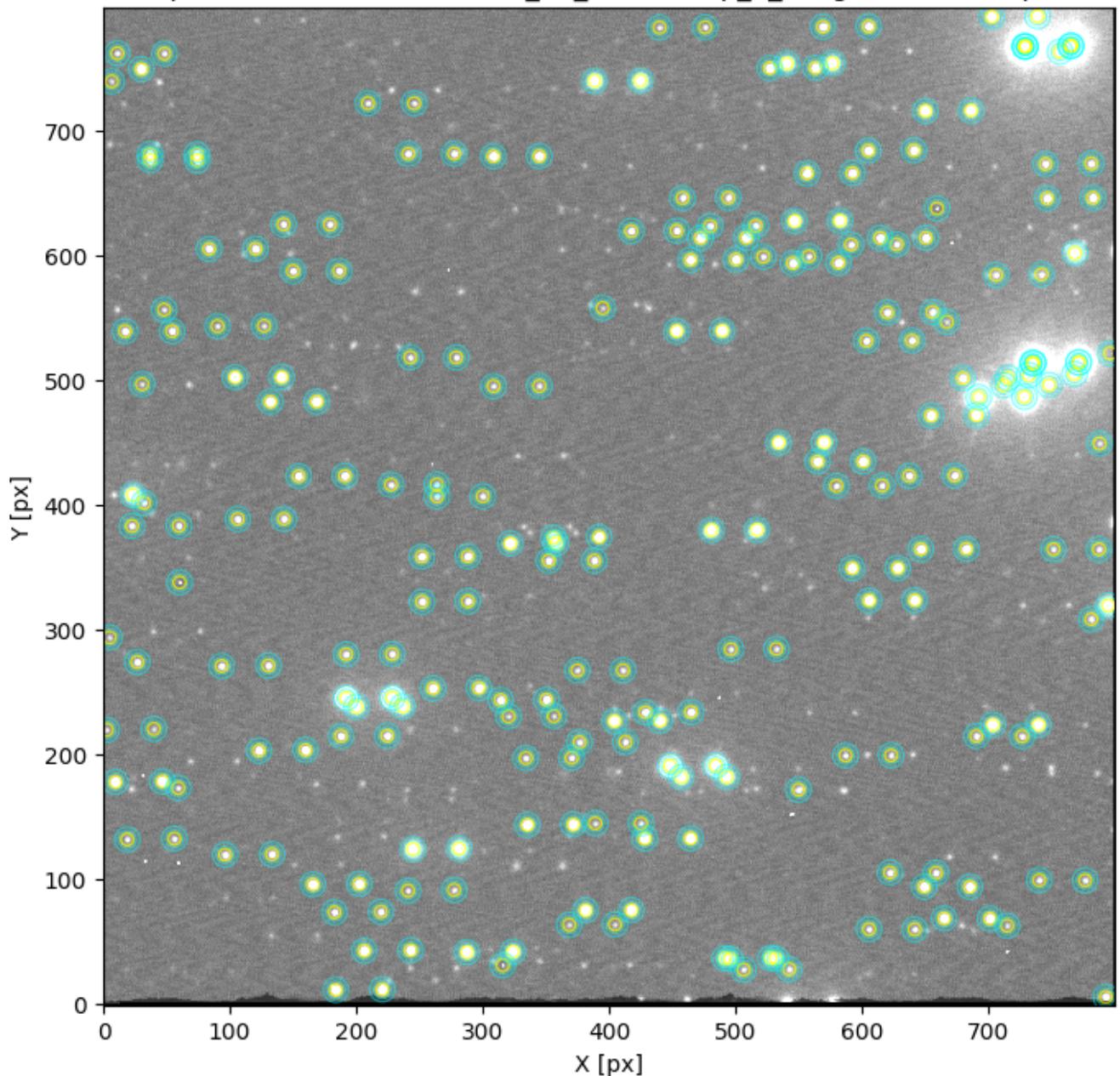
Apertures caf-20230721-00\_44\_17-sci-blap\_b\_f-aligned.fits (r=5px)



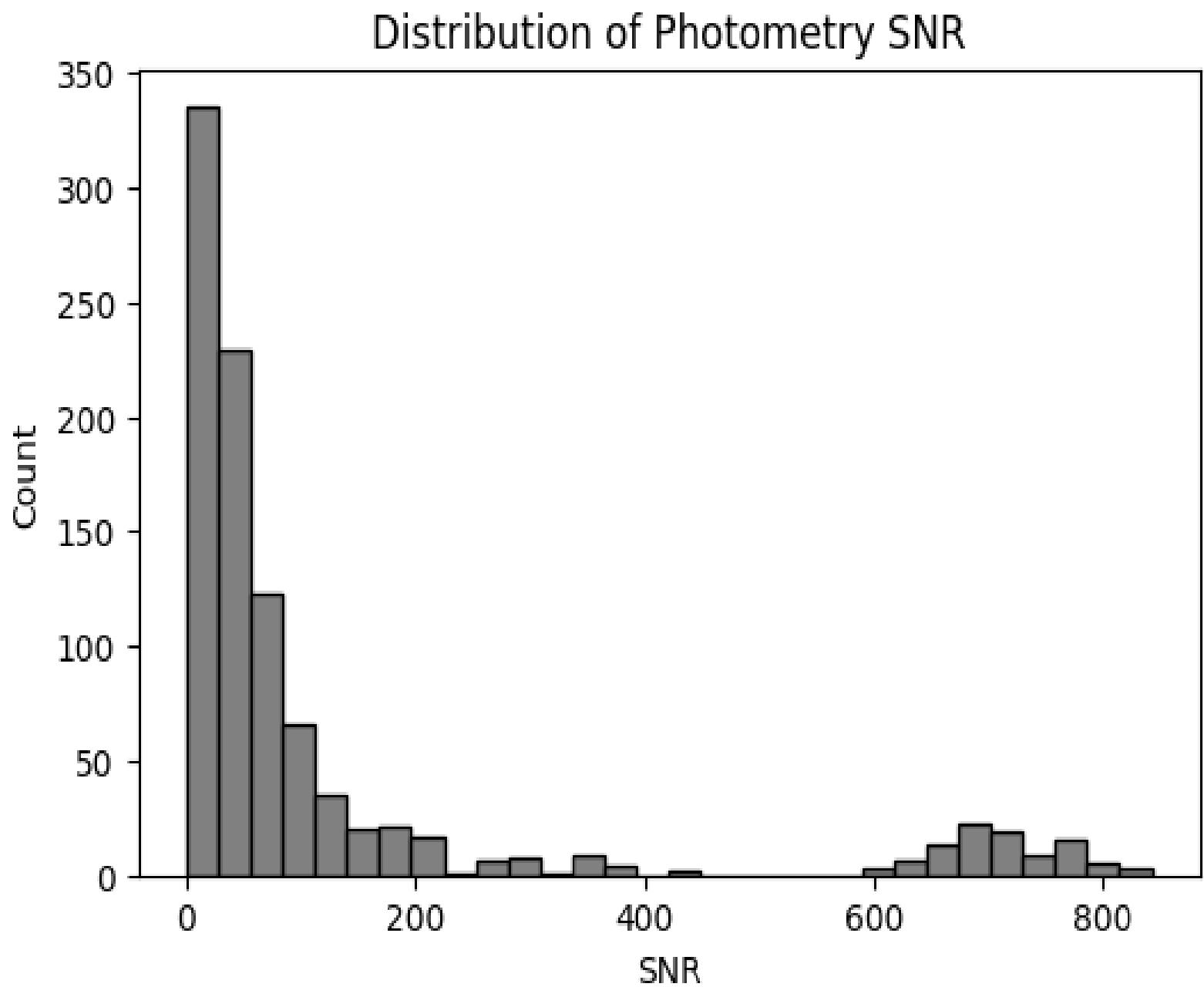
Apertures caf-20230721-00\_45\_26-sci-blap\_b\_f-aligned.fits (r=5px)



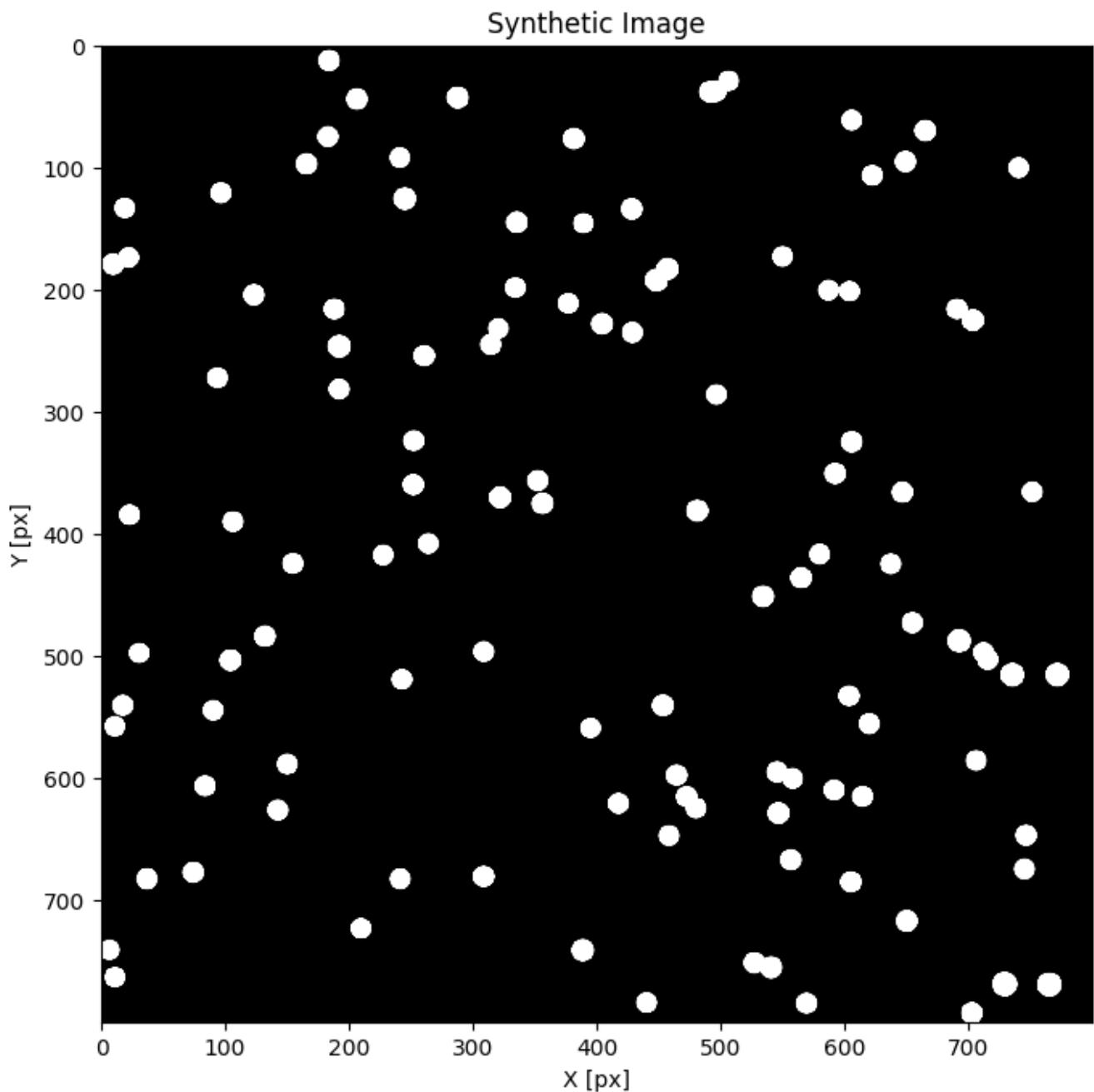
Apertures caf-20230721-00\_46\_35-sci-blap\_b\_f-aligned.fits (r=5px)



## 4. Fotometría — Histograma de SNR



## 5. Astrometría — Imagen sintética



## 5. Astrometría — Resultados SIMBAD

Par	RA (°)	DEC (°)	Simbad ID	Object Type
0	294.354308	54.210789	No_ID	
1	294.361305	54.257751	TYC 3934-44-1	Star
2	294.363412	54.255533	TYC 3934-44-1	Star
3	294.363337	54.256168	TYC 3934-44-1	Star
4	294.362786	54.225772	No_ID	
5	294.362368	54.213905	No_ID	
6	294.370214	54.272084	No_ID	
7	294.372886	54.280708	No_ID	
8	294.369838	54.210323	No_ID	
9	294.372008	54.239268	No_ID	
10	294.374634	54.218703	No_ID	
11	294.379084	54.278255	No_ID	
12	294.375257	54.207694	No_ID	
13	294.381146	54.291566	No_ID	
14	294.381662	54.274278	No_ID	
15	294.380552	54.197486	No_ID	
16	294.383041	54.219107	No_ID	
17	294.382960	54.186108	No_ID	
18	294.386784	54.245785	No_ID	
19	294.388689	54.232199	No_ID	
20	294.389369	54.240035	No_ID	
21	294.397592	54.263350	No_ID	
22	294.393092	54.186357	No_ID	
23	294.394341	54.184494	No_ID	
24	294.399307	54.249741	No_ID	
25	294.401514	54.248401	No_ID	
26	294.402039	54.231740	LSPM J1937+5413	HighPM*
27	294.404825	54.268621	No_ID	
28	294.405188	54.271086	No_ID	
29	294.401630	54.200926	No_ID	
30	294.405629	54.237897	LSPM J1937+5413	HighPM*
31	294.405088	54.210321	No_ID	

32	294.409597	54.283690	No_ID	
33	294.411999	54.285510	No_ID	
34	294.410062	54.241793	No_ID	
35	294.410245	54.229559	LSPM J1937+5413	HighPM*
36	294.412049	54.245332	No_ID	
38	294.413457	54.228590	LSPM J1937+5413	HighPM*
39	294.412749	54.210744	No_ID	
40	294.415299	54.220704	LSPM J1937+5413	HighPM*
41	294.418292	54.196264	No_ID	
42	294.421501	54.210546	No_ID	
43	294.425343	54.254948	No_ID	
44	294.432586	54.219100	No_ID	
45	294.436023	54.270690	No_ID	
46	294.442381	54.268599	No_ID	
47	294.441664	54.233522	No_ID	
48	294.441572	54.218857	No_ID	
49	294.446712	54.276441	No_ID	
50	294.447603	54.291751	No_ID	
51	294.444832	54.229018	No_ID	
52	294.446381	54.233986	1H 1936+541	Star
53	294.448999	54.252182	No_ID	
54	294.445658	54.185312	No_ID	
55	294.447806	54.197463	No_ID	
56	294.453738	54.220365	No_ID	
57	294.458798	54.266410	No_ID	
58	294.455752	54.215000	No_ID	
59	294.456807	54.204322	No_ID	
60	294.461315	54.274754	No_ID	
61	294.463507	54.264125	No_ID	
62	294.467013	54.259553	No_ID	
63	294.473535	54.277044	TYC 3934-86-1	Star
64	294.471486	54.200718	No_ID	
65	294.477604	54.282479	TYC 3934-86-1	Star
66	294.476248	54.226408	No_ID	
67	294.473997	54.185836	No_ID	

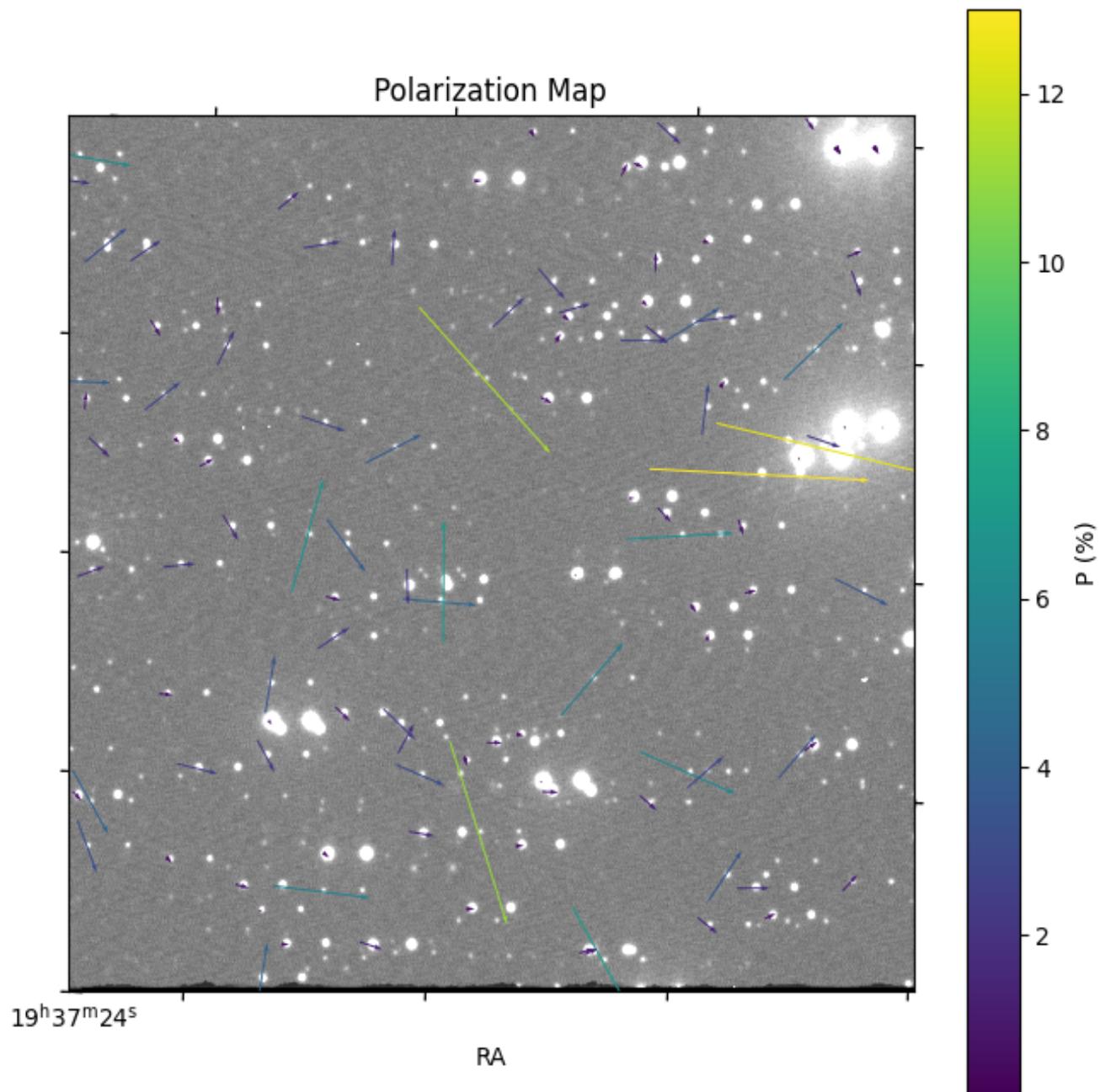
68	294.480163	54.285304	TYC 3934-86-1	Star
69	294.481665	54.285781	TYC 3934-10-1	Star
70	294.476147	54.196540	No_ID	
72	294.484961	54.288604	TYC 3934-10-1	Star
73	294.485288	54.293900	TYC 3934-10-1	Star
74	294.481335	54.216647	No_ID	
75	294.488058	54.269243	No_ID	
76	294.484575	54.183672	No_ID	
77	294.488640	54.247275	ZTF J193800.80+541455.5	EclBin
78	294.486269	54.194287	No_ID	
79	294.493936	54.271509	No_ID	
80	294.488804	54.182644	No_ID	
81	294.492721	54.238648	No_ID	
82	294.502281	54.283945	No_ID	
83	294.497825	54.202760	No_ID	
84	294.503136	54.260430	ZTF J193802.85+541538.0	BYDraV*
85	294.503026	54.248566	ZTF J193800.80+541455.5	EclBin
86	294.504564	54.262229	ZTF J193802.85+541538.0	BYDraV*
87	294.501678	54.192982	No_ID	
88	294.507249	54.267065	ZTF J193802.85+541538.0	BYDraV*
89	294.507510	54.249654	ZTF J193800.80+541455.5	EclBin
90	294.508794	54.270385	ZTF J193802.85+541538.0	BYDraV*
91	294.508376	54.241586	ZTF J193800.80+541455.5	EclBin
92	294.509927	54.250700	ZTF J193800.80+541455.5	EclBin
93	294.507173	54.201449	No_ID	
94	294.511571	54.260403	ZTF J193802.85+541538.0	BYDraV*
95	294.515362	54.247396	ZTF J193800.80+541455.5	EclBin
96	294.518004	54.289495	No_ID	
97	294.521248	54.261643	ZTF J193802.85+541538.0	BYDraV*
98	294.524906	54.289151	No_ID	
99	294.519285	54.191211	NVSS J193805+541052	Radio
100	294.522339	54.225368	No_ID	
101	294.520264	54.185730	NVSS J193805+541052	Radio
102	294.522195	54.215534	No_ID	
103	294.526232	54.268623	No_ID	

104	294.534672	54.275034	No_ID	
105	294.532046	54.210690	No_ID	
106	294.534540	54.180983	NVSS J193805+541052	Radio
107	294.538215	54.236715	1RXS J193806.2+541407	X
108	294.542097	54.256866	No_ID	
109	294.543175	54.258826	No_ID	
110	294.540182	54.181519	NVSS J193805+541052	Radio
111	294.548367	54.286283	TYC 3934-540-1	Star
112	294.548367	54.286283	TYC 3934-540-1	Star
113	294.548367	54.286283	TYC 3934-540-1	Star
114	294.548853	54.291585	TYC 3934-540-1	Star
115	294.548853	54.291585	TYC 3934-540-1	Star
116	294.548418	54.286340	TYC 3934-540-1	Star
117	294.548418	54.286340	TYC 3934-540-1	Star
118	294.548804	54.291535	TYC 3934-540-1	Star
119	294.548318	54.286261	TYC 3934-540-1	Star
120	294.549434	54.244001	No_ID	
121	294.550809	54.262841	No_ID	
122	294.554078	54.282294	TYC 3934-540-1	Star

## 6. Polarimetría — Estimación Interestelar (ISM)

Comp.	Q mean	Q $\sigma$	Q weight	U mean	U $\sigma$	U weight	Dominante Q	Dominante U
0	0.555	0.415	0.44	-0.452	0.034	0.39		
1	-0.114	0.103	0.56	-0.075	0.365	0.61	✓	✓

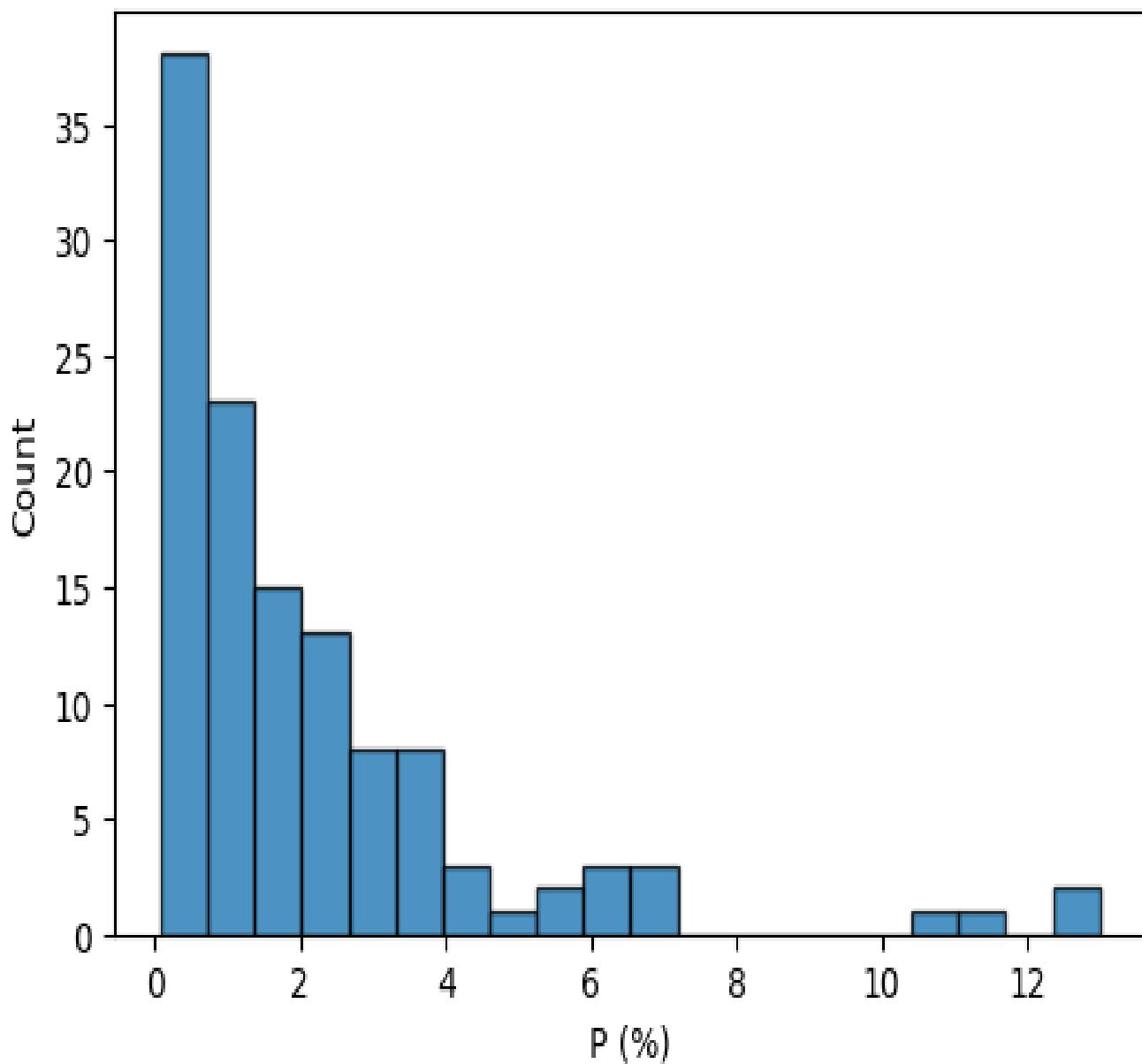
## 6. Polarimetría — Mapa de polarización





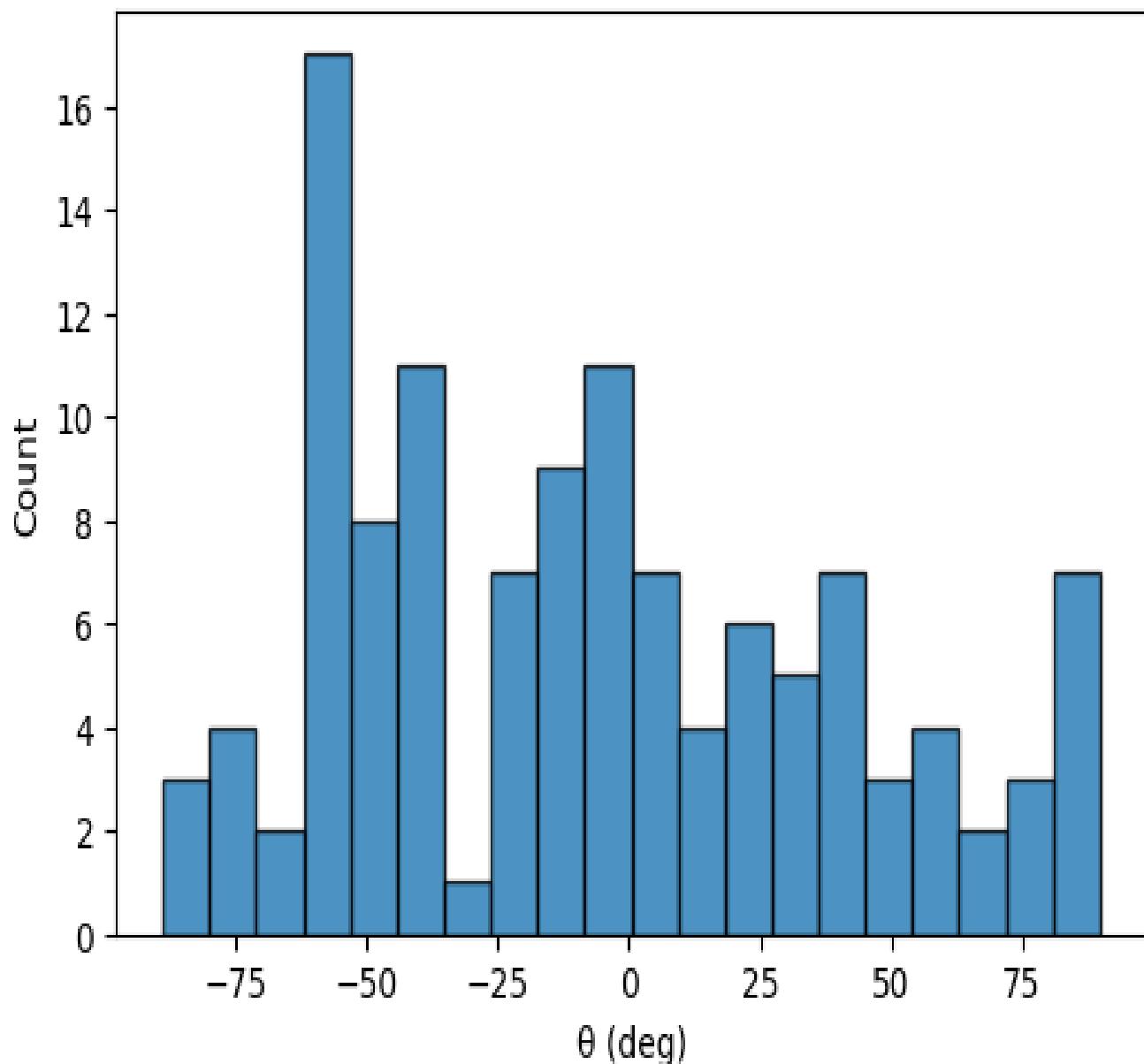
## 6. Polarimetría — Histograma de P

Histogram of Polarization Degree

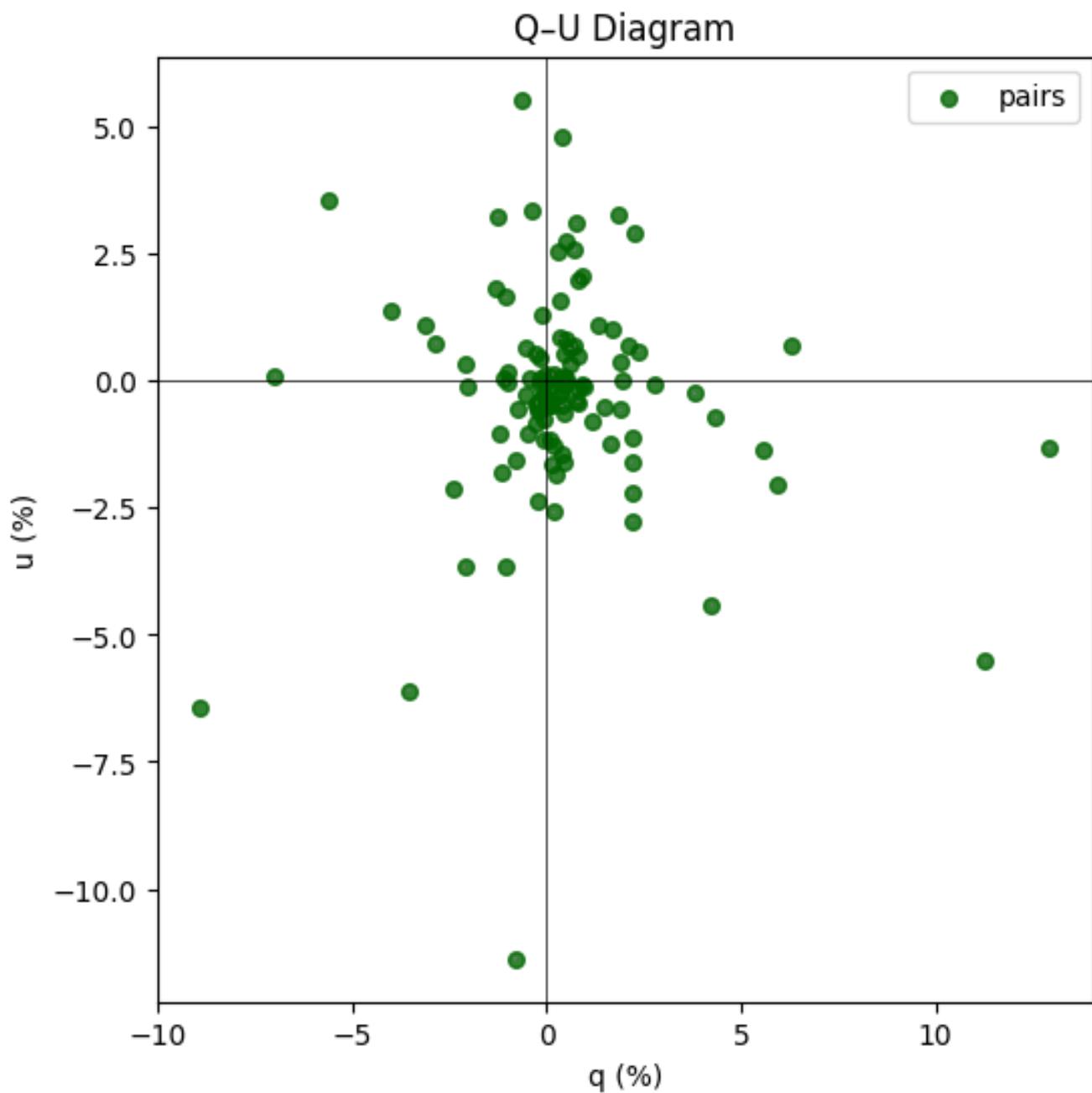


## 6. Polarimetría — Histograma de $\theta$

Histogram of Polarization Angle



## 6. Polarimetría — Diagrama Q–U



## 6. Polarimetría — Estimación Interestelar (ISM)

Comp.	Q mean	Q σ	Q weight	U mean	U σ	U weight	Dom Q	Dom U
0	0.555	0.415	0.44	-0.452	0.034	0.39		
1	-0.114	0.103	0.56	-0.075	0.365	0.61	✓	✓

### Explicación de columnas:

**Q Means:** medias de la componente q estimada para la polarización interestelar.

**Q sigmas:** desviaciones estándar ( $\sigma$ ) de los componentes gaussianos ajustados a q.

**Q weights:** pesos relativos de cada componente gaussiano en la mezcla de q.

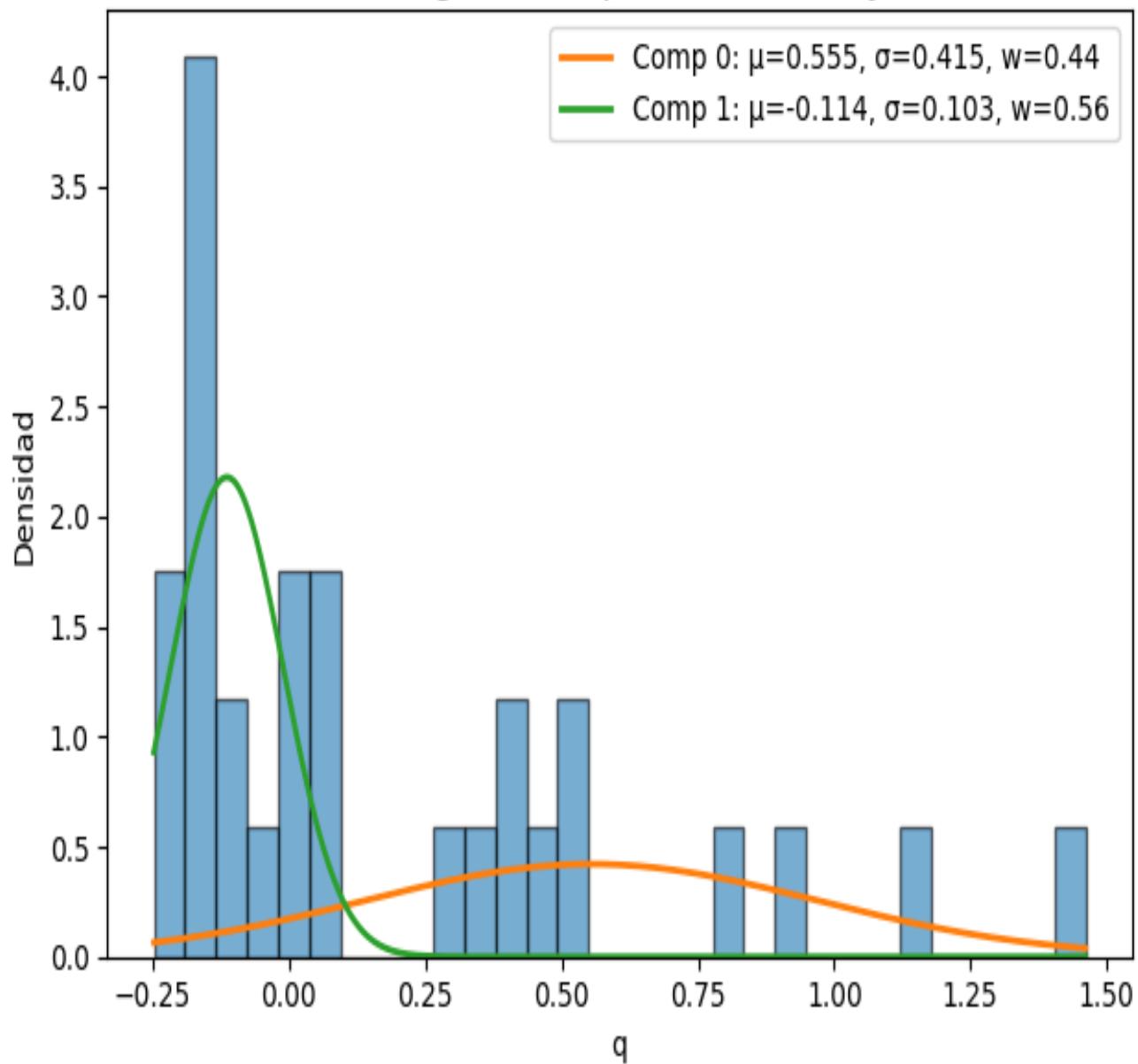
**U Means:** medias de la componente u estimada para la polarización interestelar.

**U sigmas:** desviaciones estándar ( $\sigma$ ) de los componentes gaussianos ajustados a u.

**U weights:** pesos relativos de cada componente gaussiano en la mezcla de u.

## 6. Polarimetría — Estimación ISM Q

### Histograma de $q$ con GMM overlay



## 6. Polarimetría — Estimacion ISM U

Histograma de u con GMM overlay

