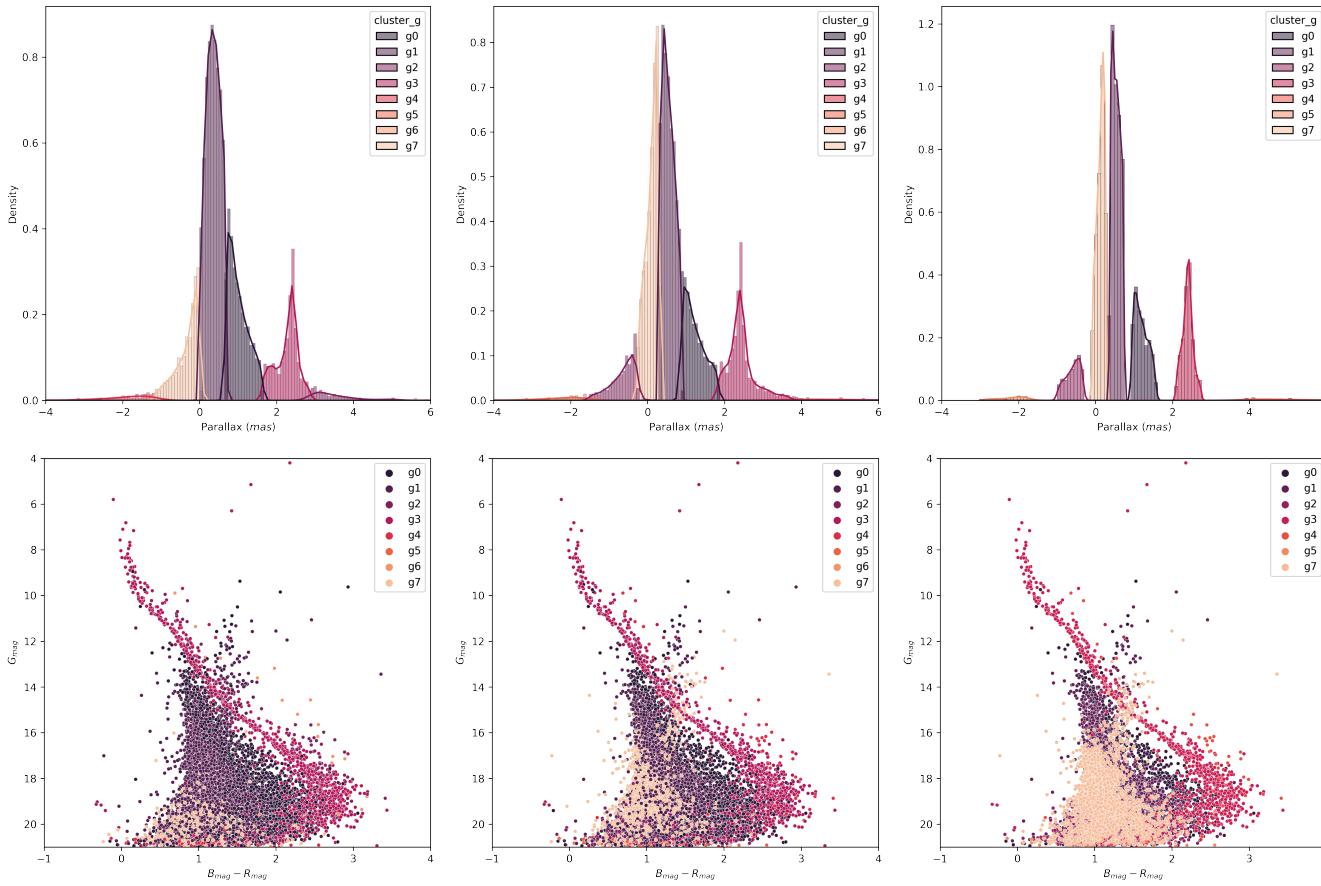


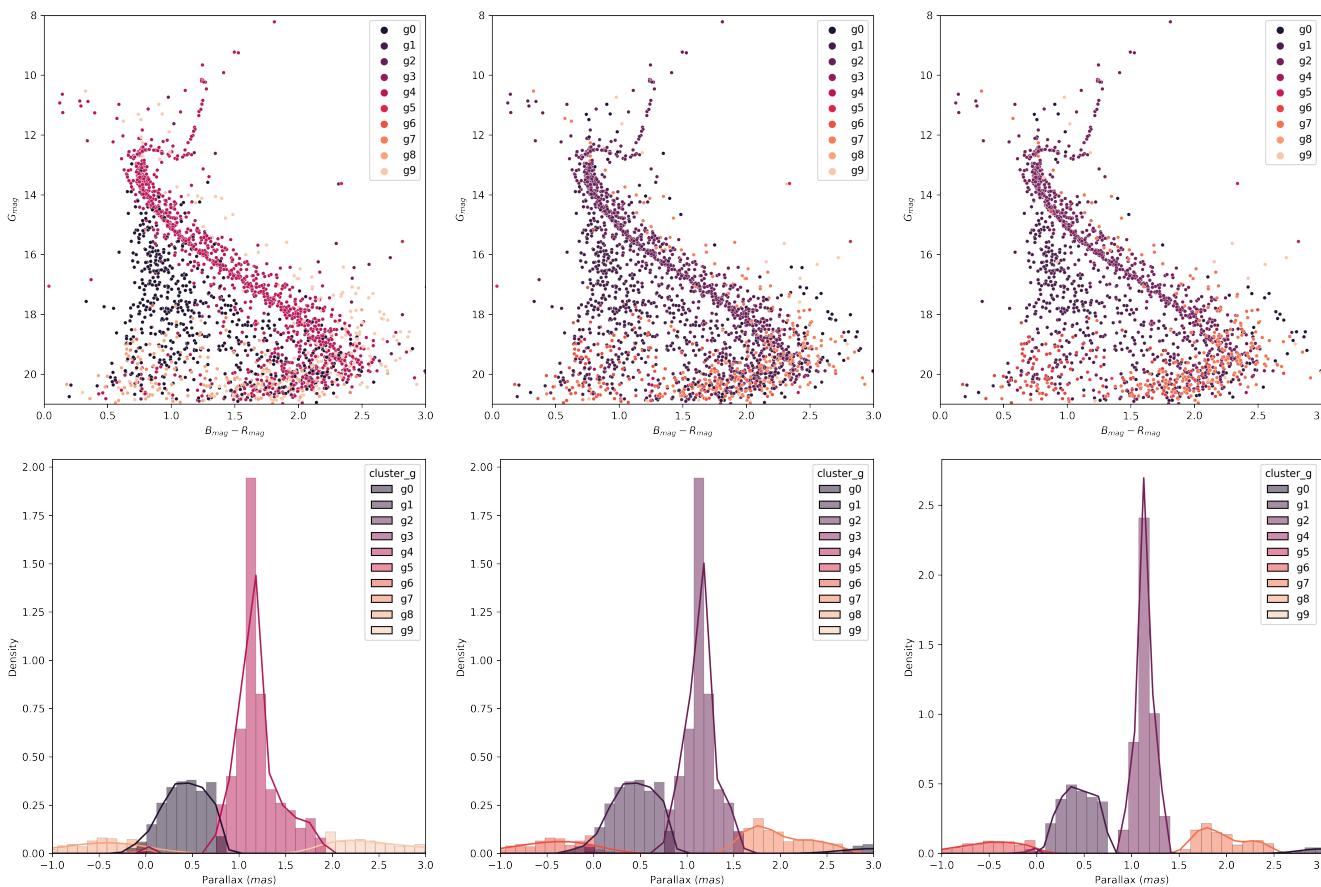
## NGC 2516



Parallax

HR Diagram

## NGC 2682



Parallax

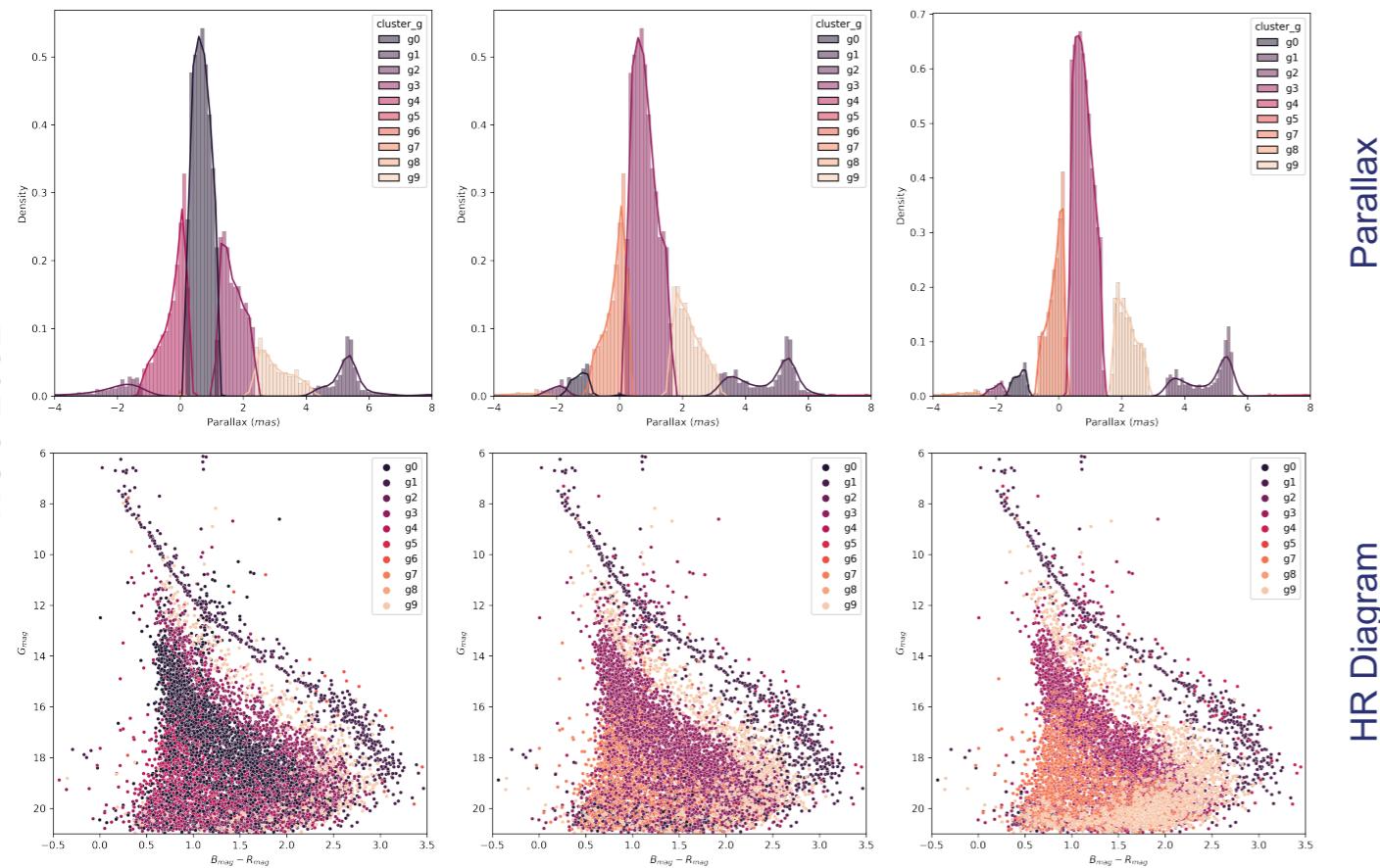
HR Diagram

(a) K-Means

(b) DECOCC

(c) DECOCC (filt.)

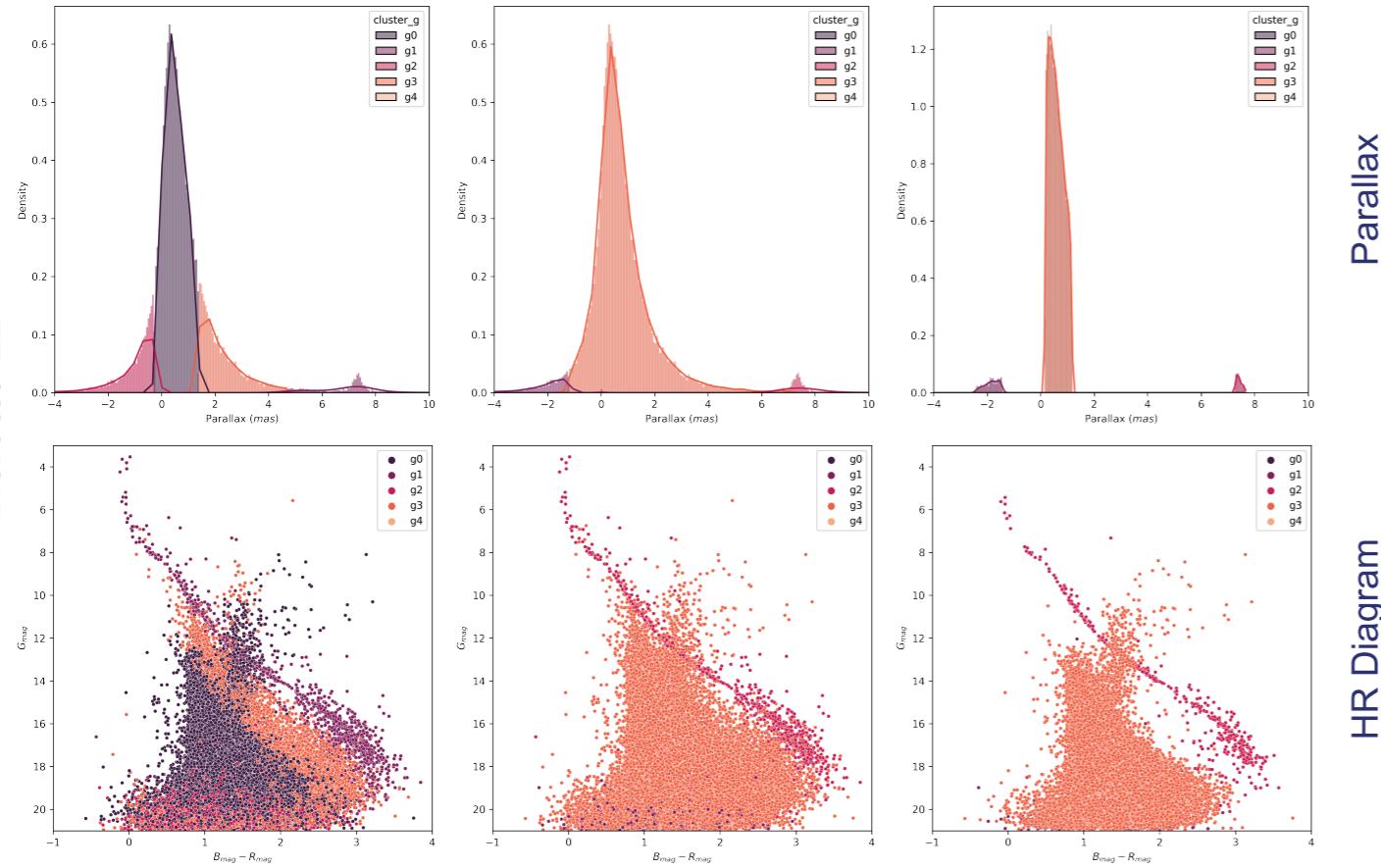
## NGC 2632



Parallax

HR Diagram

## Melotte 22



Parallax

HR Diagram

(a) K-Means

(b) DECOCC

(c) DECOCC (filt.)

	Method	$\mu_\alpha$ (mas·yr <sup>-1</sup> )	$\mu_\delta$ (mas·yr <sup>-1</sup> )	$\omega$ (mas)	# stars
NGC 2516	Simbad	-4.6579 ± 0.0075	11.1517 ± 0.0075	2.4118 ± 0.0006	1727
	K-Means	-4.344 ± 0.14	9.507 ± 0.19	2.268 ± 0.01	1542
	DECOCC	-4.426 ± 0.17	9.952 ± 0.20	2.436 ± 0.01	1532
	DECOCC (filt.)	-4.502 ± 0.14	10.114 ± 0.17	2.392 ± 0.004	1072
NGC 2632	Simbad	-36.047 ± 0.110	-12.917 ± 0.066	5.371 ± 0.003	—
	K-Means	-26.352 ± 0.82	-15.828 ± 0.76	5.394 ± 0.03	629
	DECOCC	-20.012 ± 0.69	-14.742 ± 0.58	4.686 ± 0.03	894
	DECOCC (filt.)	-21.571 ± 0.74	-14.234 ± 0.61	4.719 ± 0.03	714
NGC 2682	Simbad	-10.9737 ± 0.0064	-2.9396 ± 0.0063	1.1325 ± 0.0011	1194
	K-Means	-8.616 ± 0.15	-3.710 ± 0.16	1.196 ± 0.01	1374
	DECOCC	-8.926 ± 0.15	-3.550 ± 0.15	1.144 ± 0.005	1238
	DECOCC (filt.)	-9.619 ± 0.13	-3.317 ± 0.13	1.140 ± 0.003	990
Melotte 22	Simbad	19.997 ± 0.127	-45.548 ± 0.101	7.364 ± 0.005	1326
	K-Means	20.25 ± 0.95	-38.01 ± 1.08	7.23 ± 0.06	1378
	DECOCC	23.67 ± 1.29	-46.23 ± 1.50	8.04 ± 0.09	878
	DECOCC (filt.)	19.50 ± 0.41	-44.23 ± 0.39	7.42 ± 0.005	438

	Hyperparameter	Value
NGC 2516	Number of clusters	8
	Clustering Layer	[50, 50, 60]
	Kernel Initializer Seed	2
	Quantil Threshold	0.15
NGC 2632	Number of clusters	10
	Clustering Layer	[50, 50, 40]
	Kernel Initializer Seed	10
	Quantil Threshold	0.1
NGC 2682	Number of clusters	10
	Clustering Layer	[50, 50, 40]
	Kernel Initializer Seed	10
	Quantil Threshold	0.1
Melotte 22	Number of clusters	5
	Clustering Layer	[50, 50, 200]
	Kernel Initializer Seed	11
	Quantil Threshold	0.1