

																					group
0.86	0.79	NA	NA	0.89	0.49	NA	NA	0.86	0.90	NA	NA	0.94	0.87	NA	NA	0.91	NA	0.76	0.89	0.91	MIDAS
0.84	0.78	1.00	0.94	0.86	0.40	0.92	0.51	0.99	1.00	0.99	0.96	0.82	0.93	0.98	0.84	0.84	0.83	0.78	0.94	0.84	MultiVI
0.83	0.74	0.97	0.98	0.85	0.11	0.84	0.52	0.87	0.96	0.91	0.99	0.70	0.91	0.73	0.97	0.93	0.88	0.73	0.88	0.90	cobolt
0.65	0.95	0.83	0.95	0.00	1.00	0.00	0.94	0.65	0.85	0.59	0.63	0.00	0.81	0.04	0.67	1.00	1.00	0.67	0.53	1.00	scMoMaT
0.97	0.57	0.99	0.85	0.94	0.19	0.93	0.56	0.85	0.78	0.93	0.88	0.90	0.85	0.92	0.84	0.89	0.86	0.75	0.87	0.88	Seurat v5 bridge
0.00	0.00	0.00	0.00	0.81	0.74	0.55	0.45	0.00	0.00	0.00	0.00	0.24	0.00	0.07	0.10	0.99	0.86	0.32	0.05	0.92	StabMap
0.88	0.81	0.84	0.67	0.65	0.73	0.52	0.26	0.74	0.83	0.69	0.62	0.20	0.44	0.03	0.02	0.83	0.75	0.67	0.45	0.79	Multigrade
Paired data downsample AUC of embedding accuracy (BMMC)	Unpaired data downsample AUC of embedding accuracy (BMMC)	Paired data downsample AUC of embedding accuracy (SHARE)	Unpaired data downsample AUC of embedding accuracy (SHARE)	Paired data downsample AUC of cell alignment accuracy (BMMC)	Unpaired data downsample AUC of cell alignment accuracy (BMMC)	Paired data downsample AUC of cell alignment accuracy (SHARE)	Unpaired data downsample AUC of cell alignment accuracy (SHARE)	Embedding accuracy of paired data downsample to 10% (BMMC)	Embedding accuracy of unpaired data downsample to 10% (BMMC)	Embedding accuracy of paired data downsample to 10% (SHARE)	Embedding accuracy of unpaired data downsample to 10% (SHARE)	Cell alignment accuracy of paired data downsample to 10% (BMMC)	Cell alignment accuracy of unpaired data downsample to 10% (BMMC)	Cell alignment accuracy of paired data downsample to 10% (SHARE)	Cell alignment accuracy of unpaired data downsample to 10% (SHARE)	Paired dataset size to cell alignment accuracy (BMMC)	Paired dataset size to cell alignment accuracy (SHARE)	Downsample metrics AUC summary	Downsample to 10% metrics summary	Paired dataset size AUC summary	

1
0.8
0.6
0.4
0.2
0

group
Downsample AUC summary
Downsample to 10% summary
Paired dataset sizes summary
Ranking