

1 Teams that submitted their algorithms

- 07 - Ludwig Maximilian University of Munich, Mathematics Department - Germany.
- 08 - Applied Mathematics, Innsbruck - Austria.
- 09 - Federal University of ABC, Center for Engineering, Modeling and Applied Social Sciences - Brazil. GitHub
- 13 - Indian Institute of Science, Department of Computational and Data Sciences (CDS) - India.
- 14 - National University of Singapore, Mathematics Department - Singapore.
- 15 - Technical University Dortmund, Department of Computer Science. Heinrich Heine University Düsseldorf, Department of Computer Science - Germany.
- 16 - University of Bremen, Center for Industrial Mathematics (ZeTeM) - Germany.
- 17 - Tsinghua University, Yau Mathematical Sciences Center - China.
- 24 - Technical University of Denmark, Department of Applied Mathematics and Computer Science - Denmark.

2 Leaderboard

The table below shows the scores S_n of the submitted algorithms for the test dataset. Team ID numbers follow the list above. Those that submitted more than one algorithm were marked with suffixes A, B, C, etc.

The Last column of the table presents the final rank of each team.

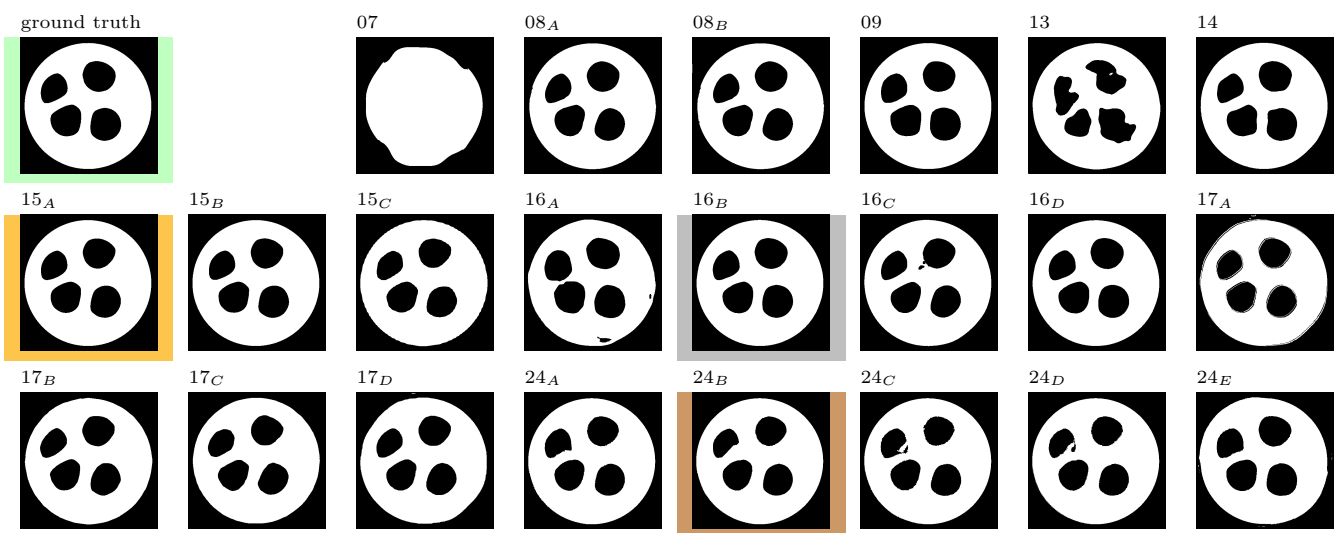
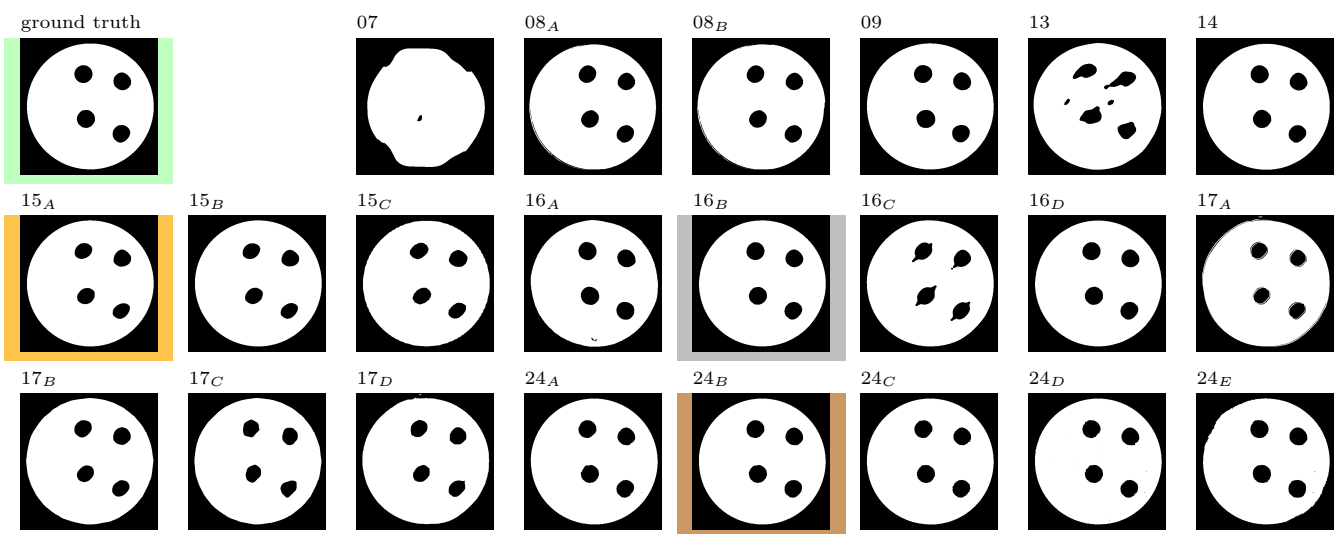
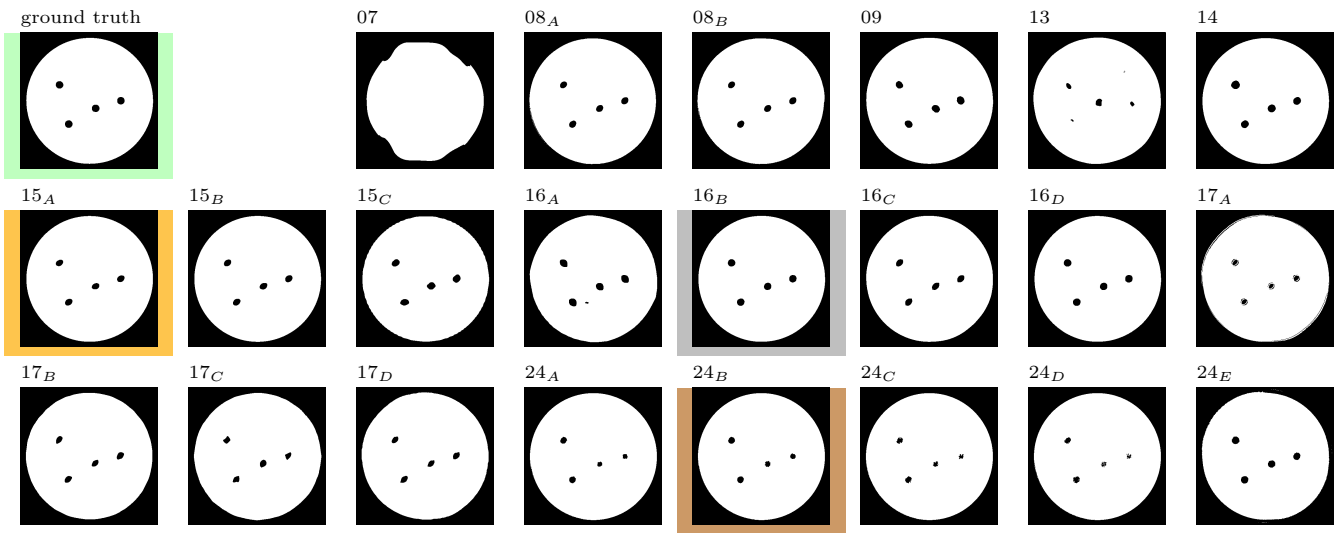
Table 1: Scores S_N and final leaderboard

Team	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Position
07	1.99157	1.30523	1.29962	1.26261	1.43642	1.18552	1.43021	9th
08 _A	2.88354	2.82064	2.89009	2.74683	2.84895	2.40931	2.08002	5th
08 _B	2.91197	2.82176	2.88927	2.74320	2.86534	2.41197	2.08805	
09	2.96583	2.95357	2.91334	2.80206	2.80498	2.29492	2.10937	4th
13	2.69670	2.71990	2.25841	2.25673	2.26749	1.90006	1.90981	8th
14	2.95607	2.41305	2.06875	2.03463	2.57182	2.09047	1.95438	7th
15 _A	2.95905	2.96895	2.93179	2.91640	2.92612	2.81467	2.41018	1st
15 _B	2.95941	2.96200	2.92603	2.89340	2.90916	2.72889	2.38991	2nd
15 _C	2.93267	2.94250	2.87712	2.81466	2.83210	2.61577	2.33738	
16 _A	2.92226	2.90749	2.68381	1.84681	1.69401	1.85821	1.75843	6th
16 _B	2.98727	2.98445	2.96335	2.94883	2.94267	2.68901	2.40549	
16 _C	2.92315	2.89535	2.80559	2.81679	2.90539	2.64358	2.27191	
16 _D	2.97861	2.95946	2.89116	2.92211	2.88932	2.64124	2.29831	
17 _A	2.84654	2.82335	2.74922	2.79669	2.78590	2.47630	2.05921	3rd
17 _B	2.89845	2.82632	2.83256	2.67381	2.73241	2.44723	2.00980	
17 _C	2.90189	2.81031	2.82227	2.66029	2.74065	2.43710	2.00498	
17 _D	2.89569	2.84482	2.85139	2.77558	2.74823	2.47280	2.02783	
24 _A	2.94146	2.90467	2.90360	2.82783	2.82966	2.47147	2.09127	3rd
24 _B	2.93393	2.90992	2.92264	2.83569	2.84102	2.48042	2.17836	
24 _C	2.92923	2.89387	2.89817	2.81174	2.78908	2.48920	2.11445	
24 _D	2.93131	2.90559	2.91029	2.81522	2.80525	2.48613	2.09943	
24 _E	2.88967	2.86317	2.83680	2.72591	2.74638	2.33607	1.96893	

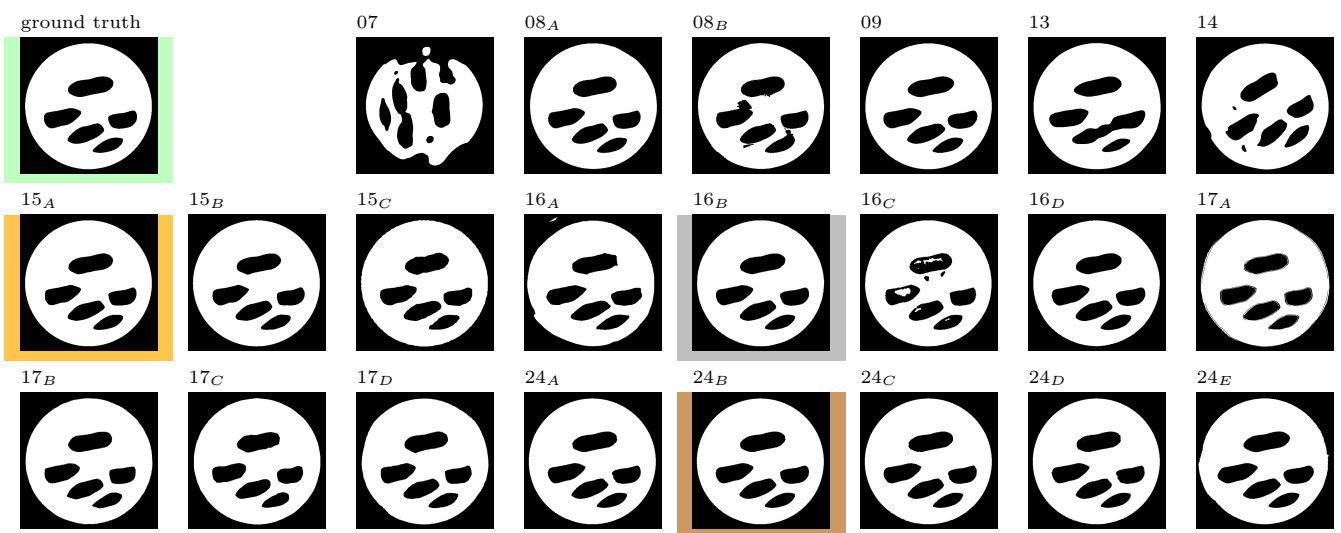
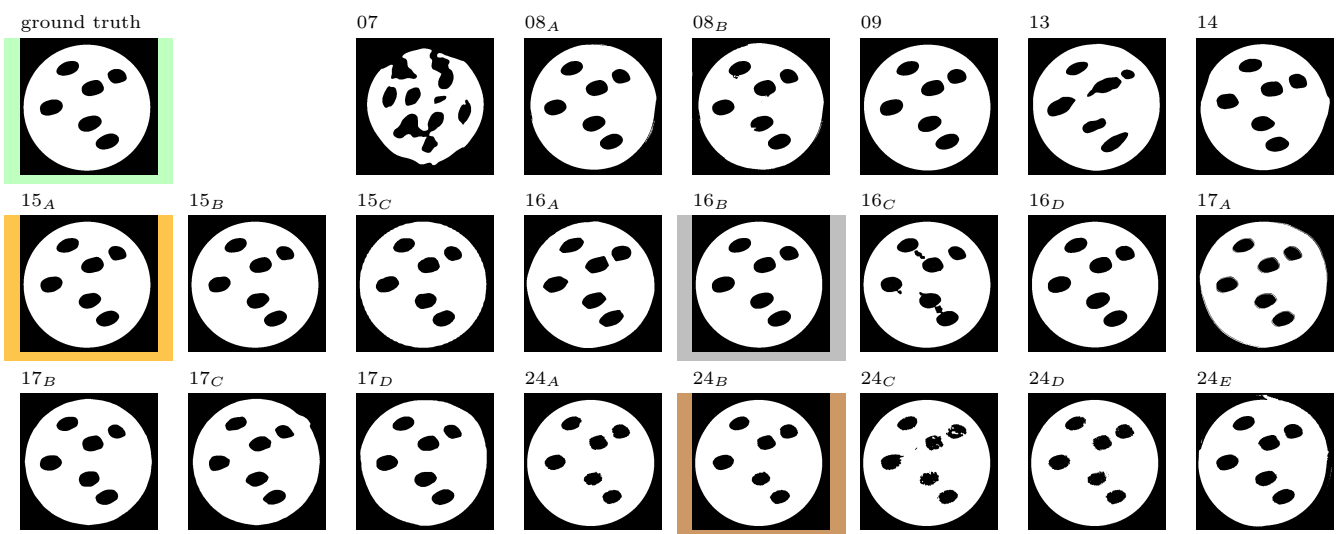
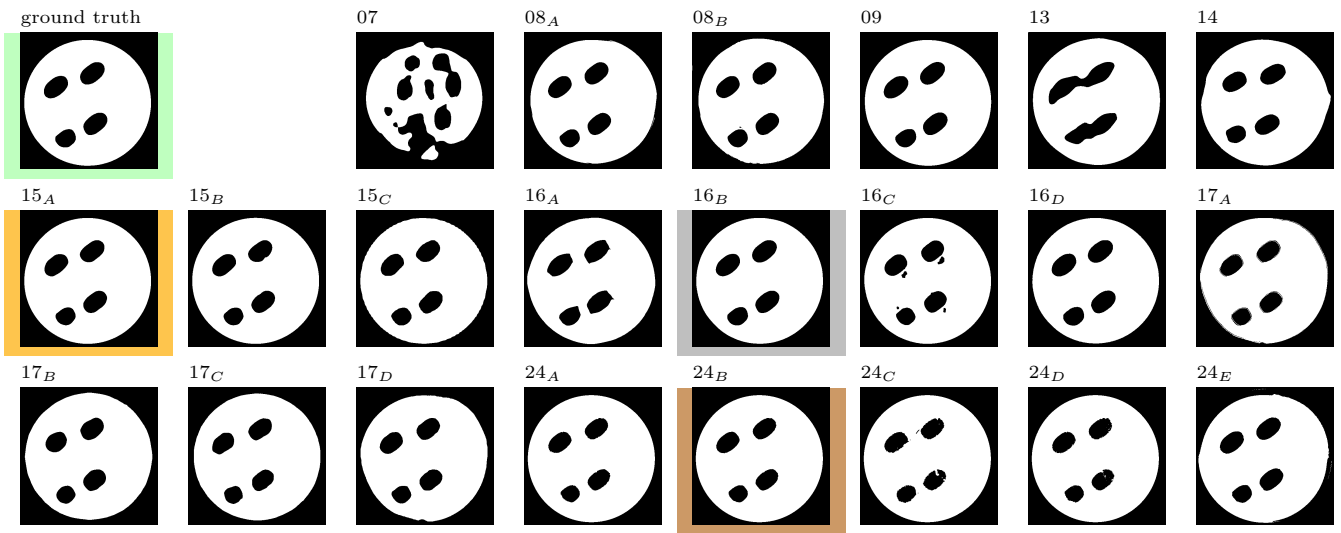
3 Details scores

In the next pages we present all reconstructions and the scores of the dataset.

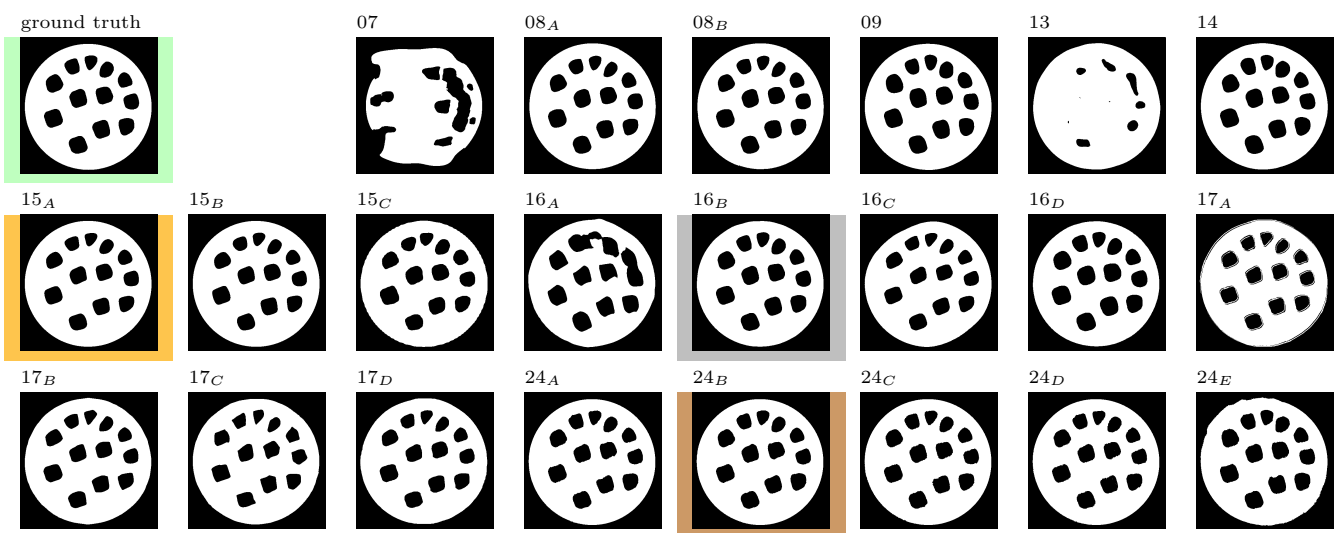
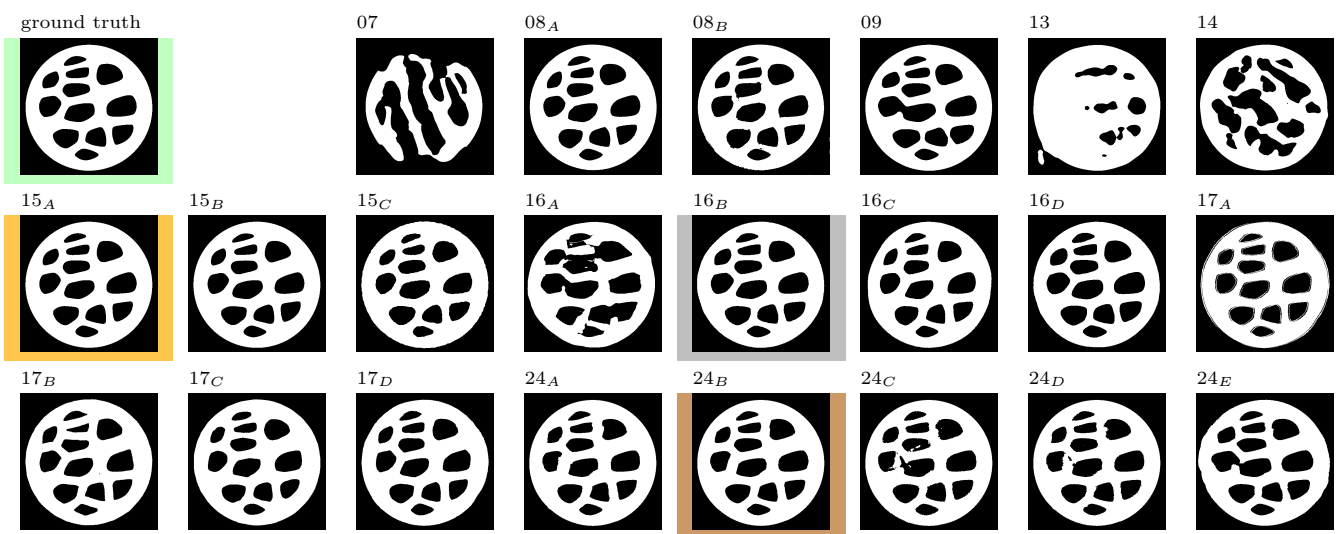
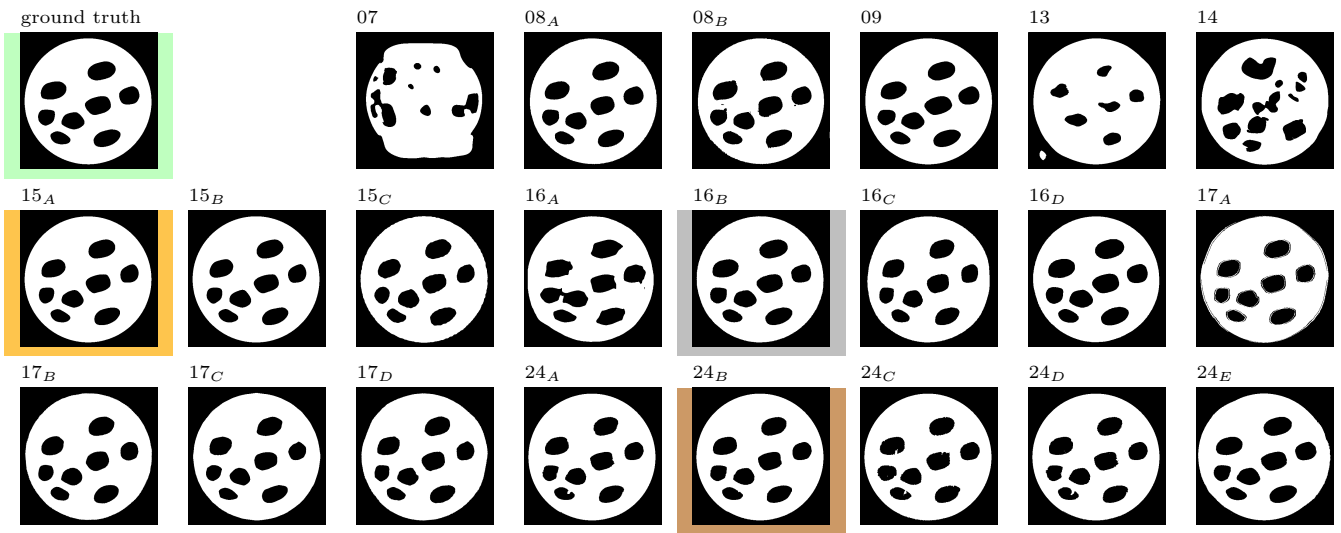
Level 1 - The first, second and third places are highlighted in gold, silver, and bronze colors



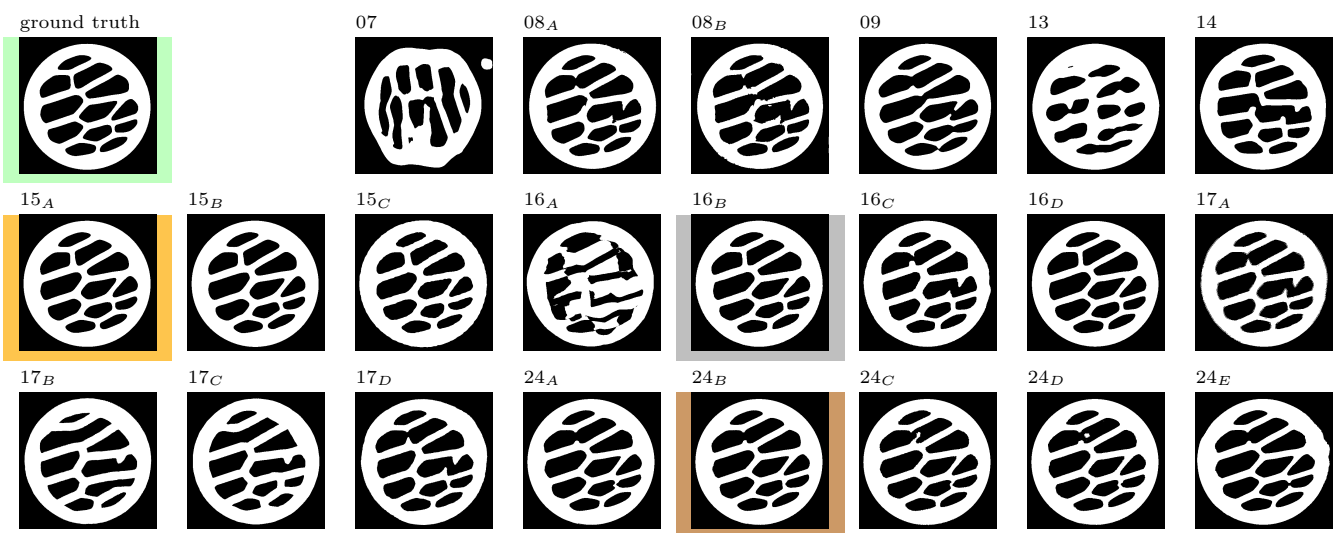
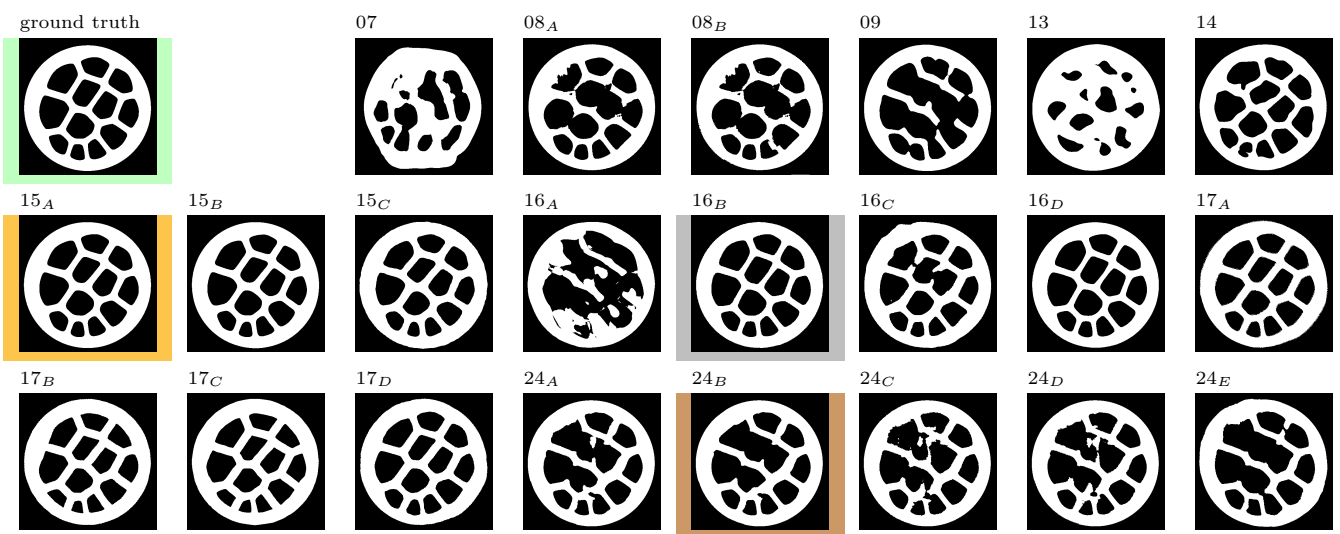
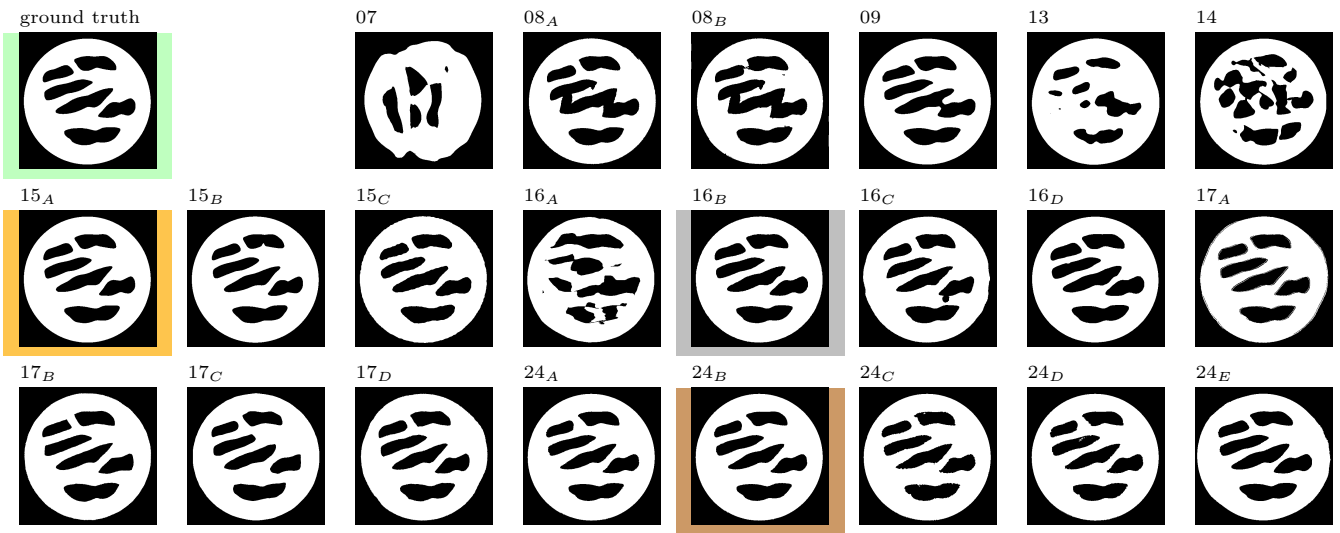
Level 2 - The first, second and third places are highlighted in gold, silver, and bronze colors



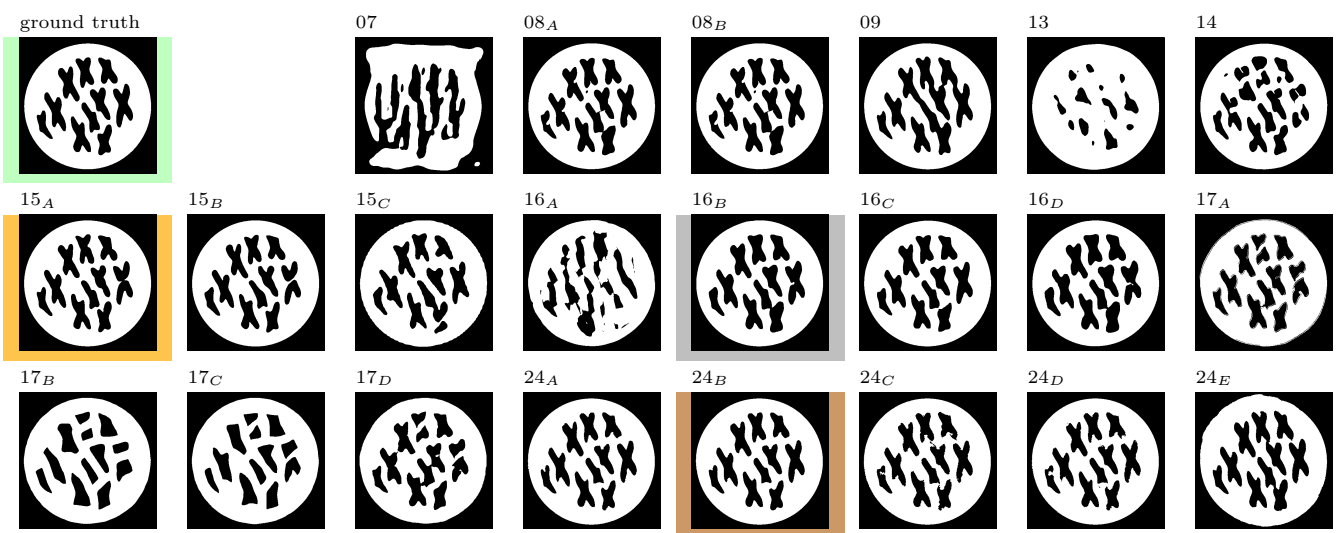
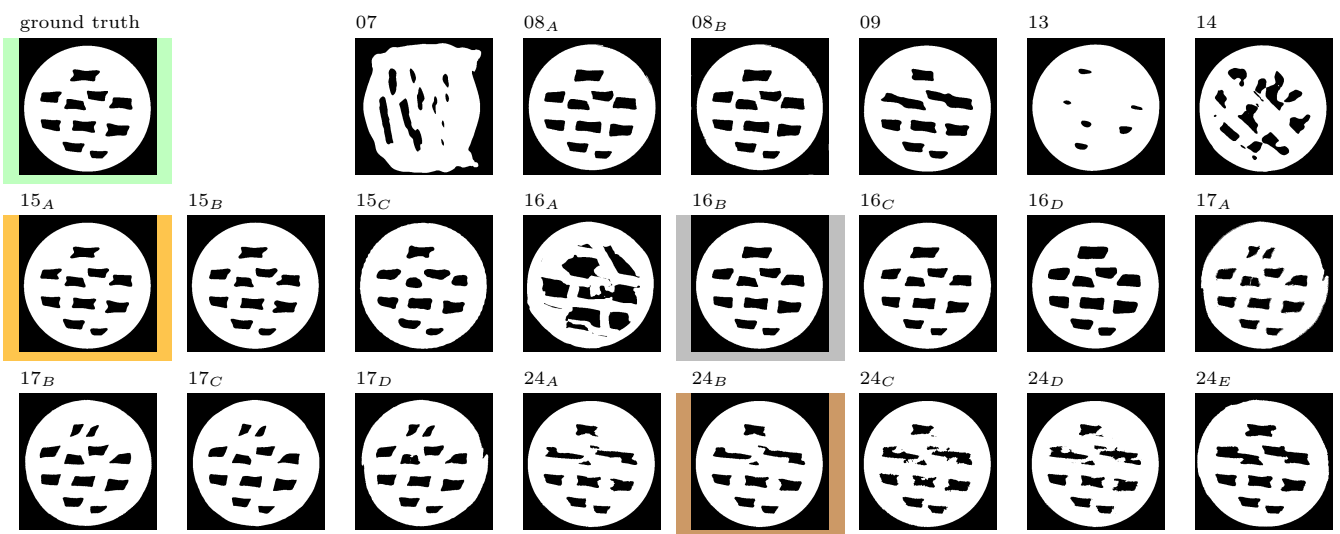
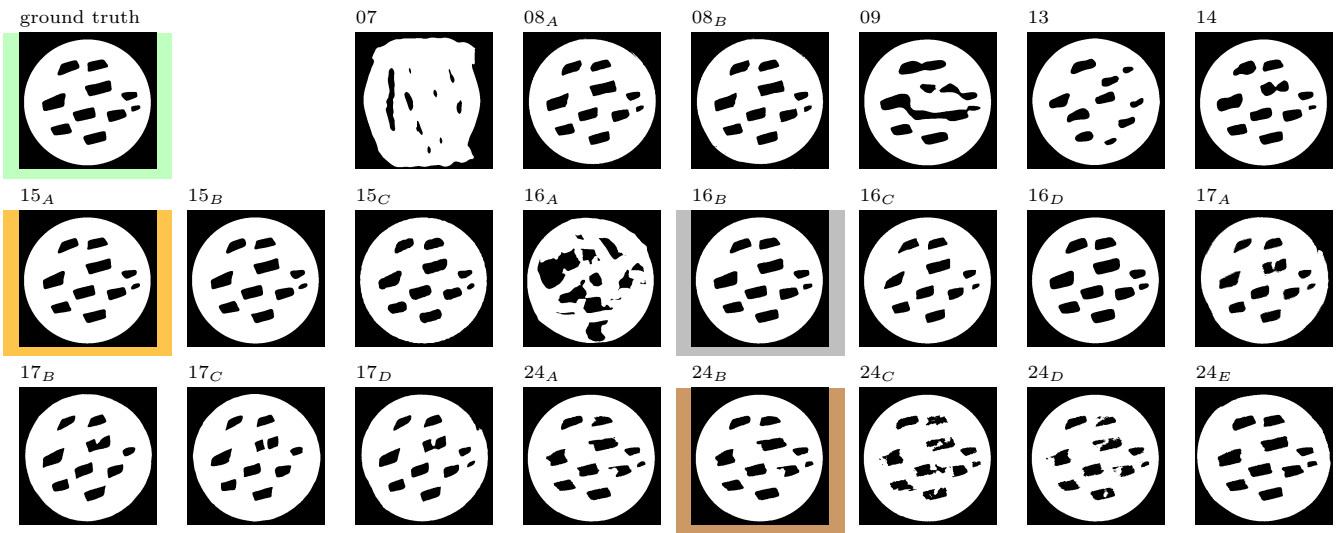
Level 3 - The first, second and third places are highlighted in gold, silver, and bronze colors



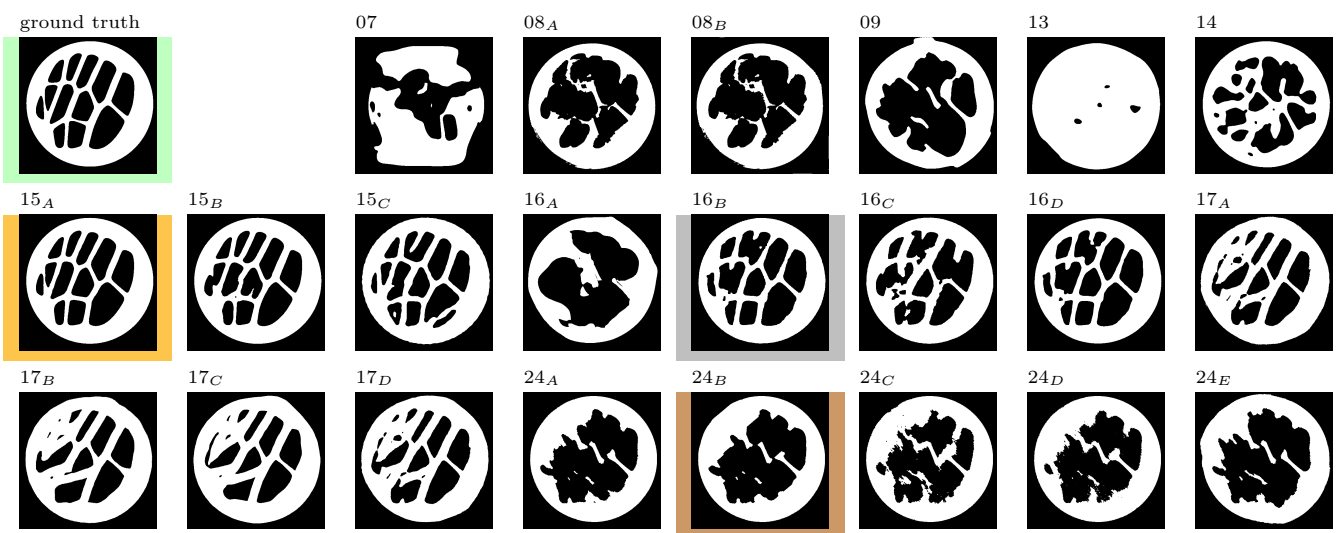
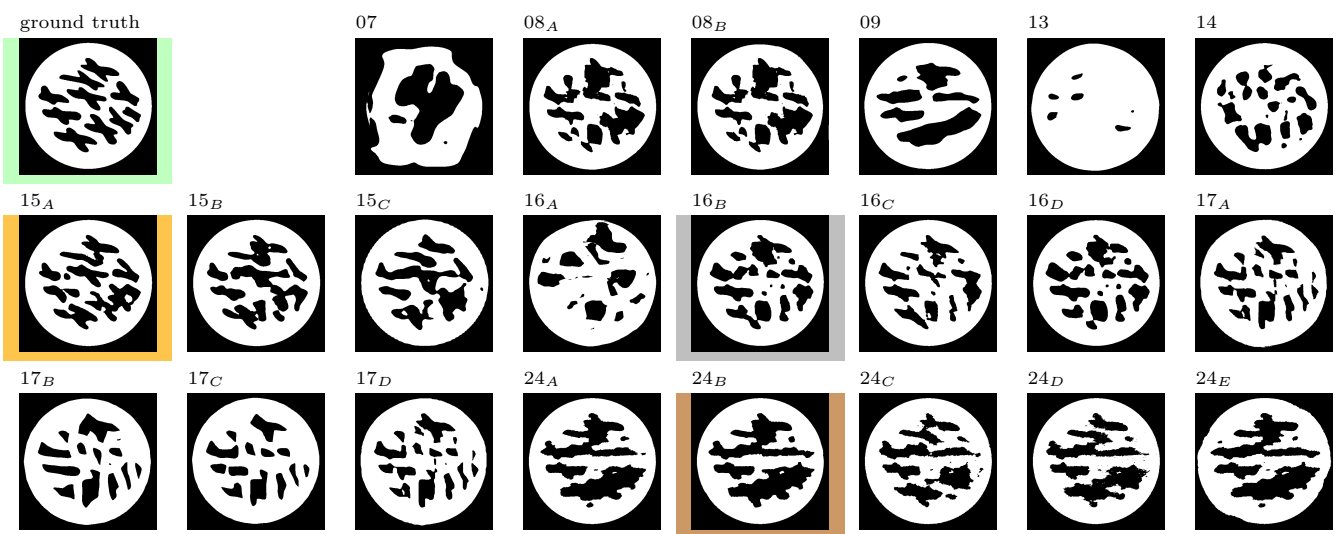
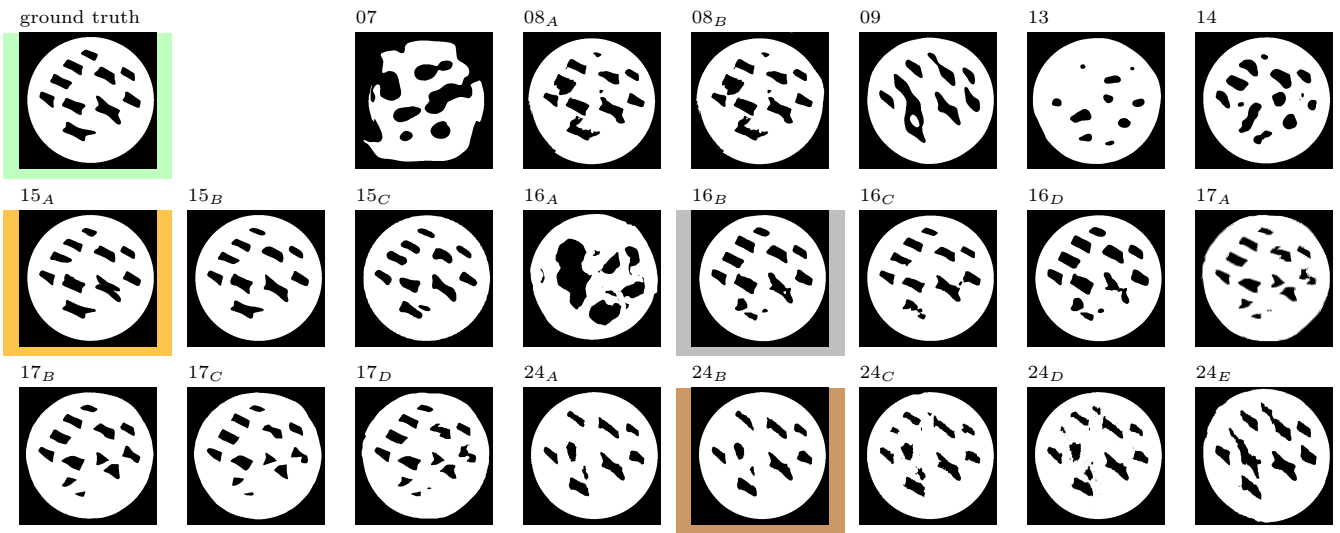
Level 4 - The first, second and third places are highlighted in gold, silver, and bronze colors



Level 5 - The first, second and third places are highlighted in gold, silver, and bronze colors



Level 6 - The first, second and third places are highlighted in gold, silver, and bronze colors



Level 7 - The first, second and third places are highlighted in gold, silver, and bronze colors

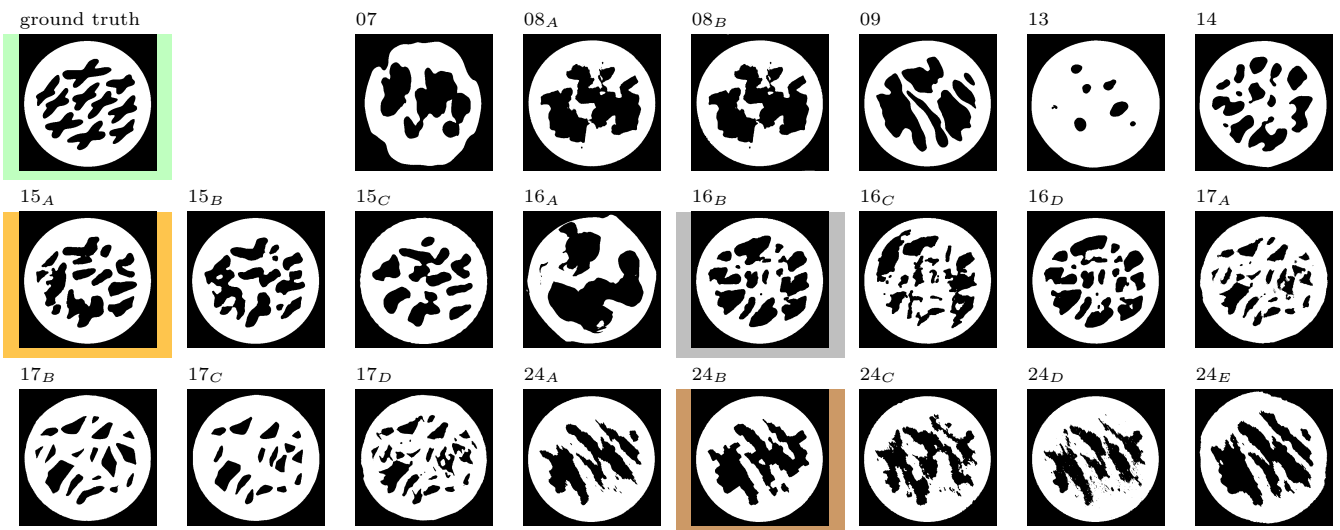
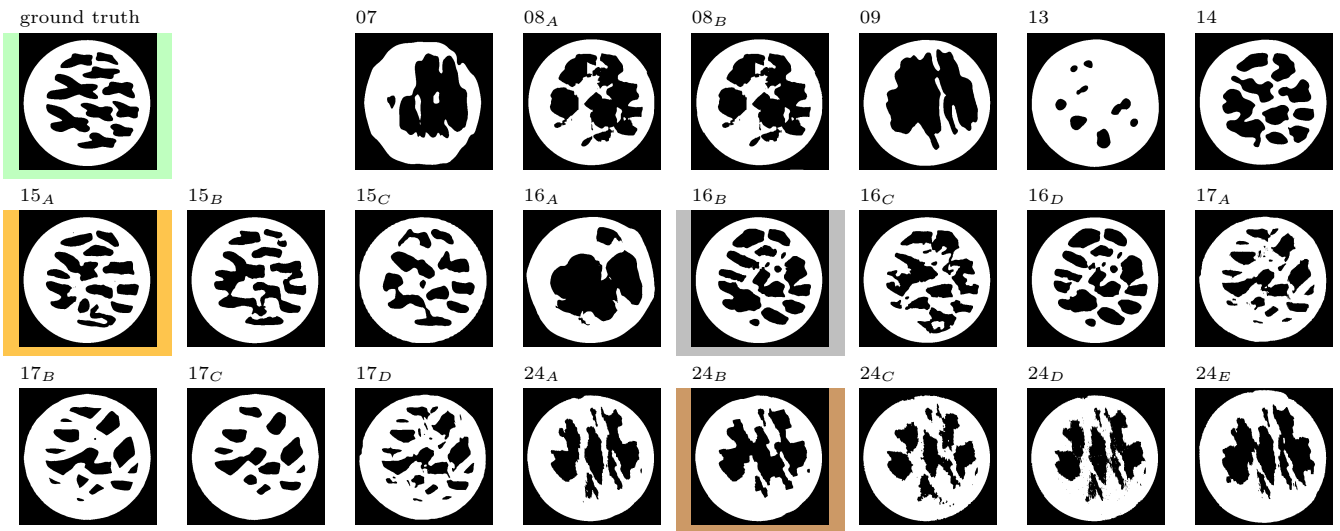
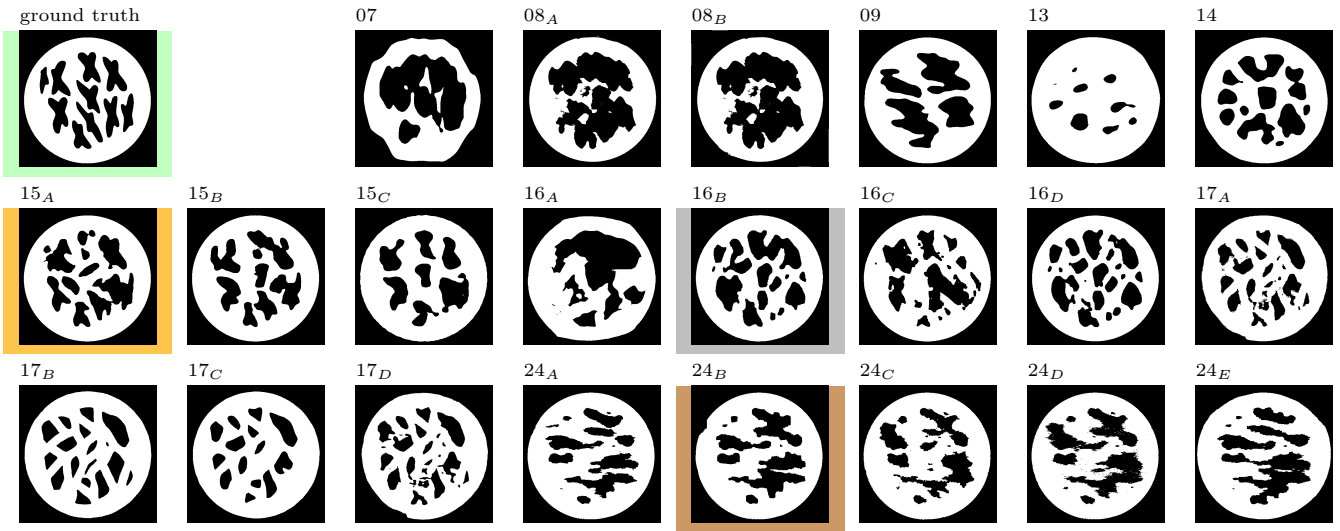


Table 2: Scores for each sample of the training set

Team	Sample	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
07	S_n^A	0.79085	0.44851	0.50565	0.44893	0.55401	0.43938	0.49096
	S_n^B	0.69954	0.48696	0.35458	0.41472	0.52826	0.40087	0.47031
	S_n^C	0.50118	0.36976	0.43939	0.39896	0.35415	0.34527	0.46894
08 _A	S_n^A	0.96959	0.92622	0.95561	0.93696	0.94067	0.86811	0.68502
	S_n^B	0.94863	0.92514	0.96670	0.88776	0.94187	0.80702	0.69134
	S_n^C	0.96532	0.96928	0.96778	0.92211	0.96641	0.73418	0.70366
08 _B	S_n^A	0.97916	0.93172	0.95766	0.94148	0.95152	0.87436	0.69228
	S_n^B	0.96524	0.92857	0.95974	0.88134	0.94706	0.80140	0.69340
	S_n^C	0.96757	0.96147	0.97187	0.92038	0.96676	0.73621	0.70237
09	S_n^A	0.99242	0.98250	0.98088	0.97921	0.90589	0.87977	0.72839
	S_n^B	0.98978	0.98003	0.96052	0.86968	0.94447	0.77897	0.68578
	S_n^C	0.98363	0.99104	0.97194	0.95317	0.95462	0.63618	0.69520
13	S_n^A	0.95802	0.89352	0.81804	0.84194	0.72393	0.73458	0.62915
	S_n^B	0.89248	0.88292	0.67281	0.63267	0.80082	0.63951	0.65528
	S_n^C	0.84620	0.94346	0.76756	0.78212	0.74274	0.52597	0.62538
14	S_n^A	0.98991	0.86566	0.59670	0.74181	0.96497	0.85329	0.58669
	S_n^B	0.98584	0.84429	0.50683	0.64274	0.68449	0.67221	0.75349
	S_n^C	0.98032	0.70310	0.96522	0.65008	0.92236	0.56497	0.61420
15 _A	S_n^A	0.99250	0.99149	0.98123	0.98376	0.98222	0.96424	0.77253
	S_n^B	0.98314	0.98862	0.97817	0.96756	0.98041	0.89914	0.84657
	S_n^C	0.98341	0.98884	0.97239	0.96508	0.96349	0.95129	0.79108
15 _B	S_n^A	0.99394	0.98917	0.97883	0.97478	0.97979	0.96010	0.78061
	S_n^B	0.98194	0.98740	0.97284	0.96118	0.97278	0.83665	0.82159
	S_n^C	0.98353	0.98543	0.97436	0.95744	0.95659	0.93214	0.78771
15 _C	S_n^A	0.98704	0.98299	0.96427	0.96778	0.97126	0.93130	0.79519
	S_n^B	0.97766	0.98070	0.94868	0.92216	0.94202	0.82103	0.80375
	S_n^C	0.96797	0.97881	0.96417	0.92472	0.91882	0.86344	0.73844
16 _A	S_n^A	0.98201	0.98062	0.92540	0.71639	0.57536	0.63074	0.59809
	S_n^B	0.98312	0.97610	0.84620	0.67985	0.48684	0.59686	0.61696
	S_n^C	0.95713	0.95077	0.91221	0.45057	0.63181	0.63061	0.54338
16 _B	S_n^A	0.99697	0.99606	0.99065	0.98886	0.98904	0.95231	0.77239
	S_n^B	0.99589	0.99517	0.98424	0.98041	0.98019	0.83785	0.83181
	S_n^C	0.99441	0.99322	0.98846	0.97956	0.97344	0.89885	0.80129
16 _C	S_n^A	0.98942	0.97097	0.94119	0.95775	0.95655	0.95146	0.77007
	S_n^B	0.96900	0.96441	0.93918	0.91330	0.97665	0.84366	0.80307
	S_n^C	0.96473	0.95997	0.92522	0.94574	0.97219	0.84846	0.69877
16 _D	S_n^A	0.99314	0.98653	0.96766	0.97638	0.97218	0.92918	0.74209
	S_n^B	0.99327	0.98629	0.96073	0.97320	0.95656	0.82330	0.79864
	S_n^C	0.99220	0.98664	0.96277	0.97253	0.96058	0.88876	0.75758
17 _A	S_n^A	0.95879	0.93977	0.93084	0.94198	0.92899	0.89870	0.67264
	S_n^B	0.95392	0.93519	0.90612	0.92537	0.93182	0.77484	0.71968
	S_n^C	0.93383	0.94839	0.91226	0.92934	0.92509	0.80276	0.66689
17 _B	S_n^A	0.97973	0.92047	0.95188	0.94905	0.92163	0.90634	0.66310
	S_n^B	0.96617	0.93489	0.93393	0.86119	0.92725	0.75551	0.69765
	S_n^C	0.95255	0.97096	0.94675	0.86357	0.88353	0.78538	0.64905
17 _C	S_n^A	0.98680	0.92298	0.94821	0.93463	0.91588	0.90119	0.65785
	S_n^B	0.96365	0.92695	0.93543	0.86027	0.93396	0.76908	0.69393
	S_n^C	0.95144	0.96038	0.93863	0.86539	0.89081	0.76683	0.65320
17 _D	S_n^A	0.97616	0.94031	0.95342	0.94636	0.91434	0.90544	0.66266
	S_n^B	0.96326	0.93597	0.95119	0.90666	0.91938	0.76940	0.70863
	S_n^C	0.95627	0.96854	0.94678	0.92256	0.91451	0.79796	0.65654
24 _A	S_n^A	0.98374	0.96736	0.96609	0.97050	0.94631	0.88205	0.71029
	S_n^B	0.99128	0.94881	0.96081	0.88746	0.92336	0.83275	0.67963
	S_n^C	0.96644	0.98850	0.97670	0.96987	0.95999	0.75667	0.70135
24 _B	S_n^A	0.98518	0.96942	0.97095	0.97136	0.94977	0.88437	0.73497
	S_n^B	0.99234	0.95069	0.97232	0.89339	0.92751	0.84959	0.69966
	S_n^C	0.95641	0.98981	0.97937	0.97094	0.96374	0.74646	0.74373
24 _C	S_n^A	0.98179	0.96248	0.96325	0.96344	0.91993	0.87032	0.74162
	S_n^B	0.99111	0.94443	0.95812	0.88225	0.91729	0.83250	0.67339
	S_n^C	0.95633	0.98696	0.97680	0.96605	0.95186	0.78638	0.69944
24 _D	S_n^A	0.98163	0.96679	0.96800	0.96887	0.93218	0.88161	0.72963
	S_n^B	0.99135	0.95200	0.96634	0.88077	0.91841	0.83673	0.67064
	S_n^C	0.95833	0.98680	0.97595	0.96558	0.95466	0.76779	0.69916
24 _E	S_n^A	0.96127	0.94991	0.94647	0.93172	0.91745	0.86055	0.65961
	S_n^B	0.98542	0.93619	0.93851	0.85737	0.90958	0.76827	0.64573
	S_n^C	0.94298	0.97707	0.95182	0.93682	0.91935	0.70725	0.66359