Table 1: KS-test results for input features, using a significance level of 0.05 and the Bonferroni correction method. Results are indicated with R if the null hypotesis can be rejected or with N otherwise. An astesisk indicates the network that performed better (has the minimum KS distance) if the null hypothesis is rejected in every network

feature	uncond	cond
level_equivalent_diameter	N	N
level_major_axis_length	N	R
level_minor_axis_length	R	N
level_solidity	R	R*
nodes	R	R*
distmap-skew	R	R*
distmap-kurt	R	R*

Table 2: KS-test results for non-input features, using a significance level of 0.05 and the Bonferroni correction method. Results are indicated with R if the null hypotesis can be rejected or with N otherwise. An astesisk indicates the network that performed better (has the minimum KS distance) if the null hypothesis is rejected in every network

feature	uncond	cond
level_area	N	N
level_convex_area	R	N
level_eccentricity	R*	R
level_euler_number	R*	R
level_extent	R	R*
level_filled_area	N	N
level_orientation	N	N
level_perimeter	R	N
level_hu_moment_0	R*	R
level_hu_moment_1	R*	R
level_hu_moment_2	R	R*
level_hu_moment_3	R	N
level_hu_moment_4	N	R
level_hu_moment_5	N	R
level_hu_moment_6	R	N
level_centroid_x	R*	R
level_centroid_y	R*	R
number_of_artifacts	R	R*

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Table 2: KS-test results for non-input features, using a significance level of 0.05 and the Bonferroni correction method. Results are indicated with R if the null hypotesis can be rejected or with N otherwise. An astesisk indicates the network that performed better (has the minimum KS distance) if the null hypothesis is rejected in every network

feature	uncond	cond
number_of_powerups	R	N
number_of_weapons	R*	R
number_of_ammunitions	R	R*
number_of_keys	R	R*
number_of_monsters	R	R*
number_of_obstacles	R	R*
number_of_decorations	R	R*
walkable_area	N	N
walkable_percentage	R	N
start_location_x_px	R*	R
start_location_y_px	R*	R
artifacts_per_walkable_area	R	R*
powerups_per_walkable_area	R	R*
weapons_per_walkable_area	R	R*
ammunitions_per_walkable_area	R*	R
keys_per_walkable_area	R	R*
monsters_per_walkable_area	R*	R
obstacles_per_walkable_area	R	R*
decorations_per_walkable_area	R	R*
avg-path-length	R*	R
diameter-mean	R*	R
art-points	R	R*
assortativity-mean	R*	R
betw-cen-min	N	N
betw-cen-max	R	R*
betw-cen-mean	R	R*
betw-cen-var	R	R*
betw-cen-skew	R*	R
betw-cen-kurt	R*	R
betw-cen-Q1	R*	R
betw-cen-Q2	R*	R
betw-cen-Q3	R*	R
closn-cen-min	R	R*
closn-cen-max	R	R*
closn-cen-mean	R	R*
closn-cen-var	R	R*

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Table 2: KS-test results for non-input features, using a significance level of 0.05 and the Bonferroni correction method. Results are indicated with R if the null hypotesis can be rejected or with N otherwise. An astesisk indicates the network that performed better (has the minimum KS distance) if the null hypothesis is rejected in every network

feature	uncond	cond
closn-cen-skew	R	R*
closn-cen-kurt	R	R*
closn-cen-Q1	R	R*
closn-cen-Q2	R	R*
closn-cen-Q3	R	R*
distmap-max	R	R*
distmap-mean	R	R*
distmap-var	R	R*
distmap-Q1	R	R*
distmap-Q2	R	R*
distmap-Q3	R	R*

Table 3: KS statistic values for the tests. The value is correlated with the distance of the cumulative distributions of the true and generated data

feature	uncond-s	cond-s
level_area	0.037684	0.033180
level_convex_area	0.090993	0.067281
level_eccentricity	0.148897	0.193548
level_equivalent_diameter	0.037684	0.033180
level_euler_number	0.163603	0.196313
level_extent	0.194853	0.110599
level_filled_area	0.041360	0.024885
level_major_axis_length	0.084559	0.100461
level_minor_axis_length	0.097426	0.066359
level_orientation	0.057904	0.066359
level_perimeter	0.122243	0.087558
level_solidity	0.213235	0.093088
level_hu_moment_0	0.090074	0.150230
level_hu_moment_1	0.105699	0.190783
level_hu_moment_2	0.136029	0.100461
level_hu_moment_3	0.127757	0.075576
level_hu_moment_4	0.070772	0.109677

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Table 3: KS statistic values for the tests. The value is correlated with the distance of the cumulative distributions of the true and generated data

feature	uncond-s	cond-s
level_hu_moment_5	0.068934	0.103226
level_hu_moment_6	0.099265	0.057143
level_centroid_x	0.727022	0.749309
level_centroid_y	0.809743	0.813825
number_of_artifacts	0.466912	0.394470
number_of_powerups	0.114890	0.083871
number_of_weapons	0.296875	0.297696
number_of_ammunitions	0.401654	0.396313
number_of_keys	0.977941	0.954839
number_of_monsters	0.567096	0.553917
number_of_obstacles	0.492647	0.469124
number_of_decorations	0.831801	0.800922
walkable_area	0.036765	0.032258
walkable_percentage	0.131434	0.042396
start_location_x_px	0.229779	0.480184
start_location_y_px	0.514706	0.645161
artifacts_per_walkable_area	0.493566	0.431336
powerups_per_walkable_area	0.134191	0.107834
weapons_per_walkable_area	0.313419	0.269124
ammunitions_per_walkable_area	0.411765	0.435945
keys_per_walkable_area	0.969669	0.955760
monsters_per_walkable_area	0.585478	0.616590
obstacles_per_walkable_area	0.556985	0.545622
decorations_per_walkable_area	0.885110	0.879263
nodes	0.204963	0.156682
avg-path-length	0.149816	0.191705
diameter-mean	0.136029	0.177880
art-points	0.191176	0.165899
assortativity-mean	0.437806	0.453465
betw-cen-min	0.008272	0.007373
betw-cen-max	0.397978	0.344700
betw-cen-mean	0.427390	0.418433
betw-cen-var	0.406883	0.384146
betw-cen-skew	0.240809	0.257143
betw-cen-kurt	0.211397	0.224885
betw-cen-Q1	0.258272	0.316129
betw-cen-Q2	0.289522	0.331797
betw-cen-Q3	0.329044	0.352995

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Table 3: KS statistic values for the tests. The value is correlated with the distance of the cumulative distributions of the true and generated data

feature	uncond-s	cond-s
closn-cen-min	0.683824	0.661751
closn-cen-max	0.243566	0.127189
closn-cen-mean	0.296875	0.222120
closn-cen-var	0.323887	0.305894
closn-cen-skew	0.681985	0.638710
closn-cen-kurt	0.374081	0.361290
closn-cen-Q1	0.287684	0.212903
closn-cen-Q2	0.262868	0.179724
closn-cen-Q3	0.263787	0.160369
distmap-max	0.238971	0.147465
distmap-mean	0.189338	0.111521
distmap-var	0.225184	0.115207
distmap-skew	0.157169	0.123502
distmap-kurt	0.141544	0.092166
distmap-Q1	0.287684	0.212903
distmap-Q2	0.262868	0.179724
distmap-Q3	0.263787	0.160369

Table 4: Corrected p-values using Bonferroni method

feature	uncond	cond
level_area	1.000000e+00	1.000000e+00
level_convex_area	3.200361e-02	1.000000e+00
level_eccentricity	7.435396e-09	4.148303e-16
level_equivalent_diameter	1.000000e+00	1.000000e+00
level_euler_number	4.748398e-11	1.271954e-16
level_extent	2.122399e-16	4.301197e-04
level_filled_area	1.000000e+00	1.000000e+00
level_major_axis_length	1.108176e-01	4.494696e-03
level_minor_axis_length	8.438226e-03	1.000000e+00
level_orientation	1.000000e+00	1.000000e+00
level_perimeter	2.102817e-05	6.429117e-02
level_solidity	5.548929e-20	2.149698e-02
level_hu_moment_0	3.843069e-02	5.133117e-09
level_hu_moment_1	1.329821e-03	1.330415e-15

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Table 4: Corrected p-values using Bonferroni method

feature	uncond	cond
level_hu_moment_2	4.190523e-07	4.494696e-03
level_hu_moment_3	4.617154e-06	5.483604e-01
level_hu_moment_4	1.000000e+00	5.373800e-04
level_hu_moment_5	1.000000e+00	2.423654e-03
level_hu_moment_6	5.669900e-03	1.000000e+00
level_centroid_x	1.070696e-250	1.125612e-265
level_centroid_y	2.083609e-311	1.049249e-313
number_of_artifacts	2.207988e-102	2.232049e-72
number_of_powerups	1.430599e-04	1.285734e-01
number_of_weapons	2.333833e-40	1.782561e-40
number_of_ammunitions	2.590228e-75	4.512968e-73
number_of_keys	0.000000e+00	0.000000e+00
number_of_monsters	7.433442e-152	2.130230e-144
number_of_obstacles	3.551451e-114	4.396229e-103
number_of_decorations	0.000000e+00	8.793527e-304
walkable_area	1.000000e+00	1.000000e+00
walkable_percentage	1.619142e-06	1.000000e+00
start_location_x_px	1.753455e-23	4.391362e-108
start_location_y_px	8.671825e-125	1.660576e-196
artifacts_per_walkable_area	1.310709e-114	7.061991e-87
powerups_per_walkable_area	7.235952e-07	8.341390e-04
weapons_per_walkable_area	3.516087e-45	9.207993e-33
ammunitions_per_walkable_area	3.060356e-79	8.819154e-89
keys_per_walkable_area	0.000000e+00	0.000000e+00
monsters_per_walkable_area	5.658678e-162	2.453526e-179
obstacles_per_walkable_area	1.989644e-146	4.702091e-140
decorations_per_walkable_area	0.000000e+00	0.000000e+00
nodes	2.490741e-18	5.852337e-10
avg-path-length	5.497731e-09	9.038382e-16
diameter-mean	4.190523e-07	2.452320e-13
art-points	1.010694e-15	2.245616e-11
assortativity-mean	3.359285e-84	1.805690e-89
betw-cen-min	1.000000e+00	1.000000e+00
betw-cen-max	6.566544e-74	7.409803e-55
betw-cen-mean	1.674388e-85	1.177911e-81
betw-cen-var	4.190794e-70	4.831864e-62
betw-cen-skew	5.822511e-26	9.274394e-30
betw-cen-kurt	1.309167e-19	2.360115e-22
betw-cen-Q1	4.006247e-30	7.280756e-46

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Table 4: Corrected p-values using Bonferroni method

feature	uncond	cond
betw-cen-Q2	2.674657e-38	1.064546e-50
betw-cen-Q3	5.647906e-50	1.298595e-57
closn-cen-min	1.369050e-221	7.834709e-207
closn-cen-max	1.340476e-26	5.685490e-06
closn-cen-mean	2.333833e-40	9.153392e-22
closn-cen-var	8.709295e-44	1.047774e-38
closn-cen-skew	2.165044e-220	1.462910e-192
closn-cen-kurt	4.252462e-65	1.957042e-60
closn-cen-Q1	8.590111e-38	7.432772e-20
closn-cen-Q2	2.877151e-31	1.190231e-13
closn-cen-Q3	1.689612e-31	1.624207e-10
distmap-max	1.535713e-25	1.265929e-08
distmap-mean	2.181095e-15	3.436276e-04
distmap-var	1.747545e-22	1.374015e-04
distmap-skew	4.593784e-10	1.566533e-05
distmap-kurt	7.784317e-08	2.592363e-02
distmap-Q1	8.590111e-38	7.432772e-20
distmap-Q2	2.877151e-31	1.190231e-13
distmap-Q3	1.689612e-31	1.624207e-10

Table 5: Features that belong to group F1 in at least one test. Group F1 contains the features for which the null hypotesis is rejected for both the unconditioned and conditioned network.

feature	uncond-vs-cond
level_eccentricity	F1
level_euler_number	F1
level_extent	F1
level_solidity	F1
level_hu_moment_0	F1
level_hu_moment_1	F1
level_hu_moment_2	F1
level_centroid_x	F1
level_centroid_y	F1
number_of_artifacts	F1
number_of_weapons	F1
number_of_ammunitions	F1

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Table 5: Features that belong to group F1 in at least one test. Group F1 contains the features for which the null hypotesis is rejected for both the unconditioned and conditioned network.

feature	uncond-vs-cond
number_of_keys	F1
number_of_monsters	F1
number_of_obstacles	F1
number_of_decorations	F1
start_location_x_px	F1
start_location_y_px	F1
artifacts_per_walkable_area	F1
powerups_per_walkable_area	F1
weapons_per_walkable_area	F1
ammunitions_per_walkable_area	F1
keys_per_walkable_area	F1
monsters_per_walkable_area	F1
obstacles_per_walkable_area	F1
decorations_per_walkable_area	F1
nodes	F1
avg-path-length	F1
diameter-mean	F1
art-points	F1
assortativity-mean	F1
betw-cen-max	F1
betw-cen-mean	F1
betw-cen-var	F1
betw-cen-skew	F1
betw-cen-kurt	F1
betw-cen-Q1	F1
betw-cen-Q2	F1
betw-cen-Q3	F1
closn-cen-min	F1
closn-cen-max	F1
closn-cen-mean	F1
closn-cen-var	F1
closn-cen-skew	F1
closn-cen-kurt	F1
closn-cen-Q1	F1
closn-cen-Q2	F1
closn-cen-Q3	F1
distmap-max	F1
distmap-mean	F1

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Table 5: Features that belong to group F1 in at least one test. Group F1 contains the features for which the null hypotesis is rejected for both the unconditioned and conditioned network.

feature	uncond-vs-cond
distmap-var	F1
distmap-skew	F1
distmap-kurt	F1
distmap-Q1	F1
distmap-Q2	F1
distmap-Q3	F1

Table 6: Features that belong to group F2 in at least one test. Group F2 contains the features for which the null hypotesis is rejected for the unconditioned network and not rejected for the conditioned network.

feature	uncond-vs-cond
level_convex_area	F2
level_minor_axis_length	F2
level_perimeter	F2
level_hu_moment_3	F2
level_hu_moment_6	F2
number_of_powerups	F2
walkable_percentage	F2

Table 7: Features that belong to group F3 in at least one test. Group F3 contains the features for which the null hypotesis is not rejected for both the unconditioned and conditioned network.

feature	uncond-vs-cond
level_area	F3
level_equivalent_diameter	F3
level_filled_area	F3
level_orientation	F3
walkable_area	F3
betw-cen-min	F3

Table 8: Features that belong to group F4 in at least one test. Group F4 contains the features for which the null hypotesis is not rejected for the unconditioned network and rejected for the conditioned network.

feature	uncond-vs-cond
level_major_axis_length	F4
level_hu_moment_4	F4
level_hu_moment_5	F4