

SZ Compression Ratio Estimation

- chunk-random sampling
- sample1 - 1% sampling ratio
- sample2 - 10% sampling ratio

Astro

	Sample1	Sample2	Orig.	Estm1	Estm2
PointCnt	640	6520	65536	65536	65536
QuantIntv	20000	20000	20000	20000	20000
NodeCnt	383	2733	11347	4576	5124
HitRatio	0.9592	0.9857	0.9838	0.9592	0.9857
TreeSize	3448	24598	102124	825136	46129
EncodeSize	385	4863	48368	604	552
OutlierCnt	26	91	1064	2673	937
OutlierSize	98	282	3168	4010	
TotalSize	2046	16353	93405	832022	
CR	2.50	3.19	5.61		
EstmError	55.44%	43.14%	0		

Blast2_p

	Sample1	Sample2	Orig.	Estm1	Estm2
PointCnt	5760	57880	578880	578880	578880
QuantIntv	65536	65536	65536	65536	65536
NodeCnt	15	27	11	10	13
HitRatio	0.8944	0.8776	0.8997	0.8944	0.8776

	Sample1	Sample2	Orig.	Estm1	Estm2
TreeSize	106	190	78	77	
EncodeSize	1567	15391	154682	1387	
OutlierCnt	606	7081	63874	61129	70854
OutlierSize	1523	21256	204396		
TotalSize	915	6272	11751		
CR	50.36	73.83	394.10		
EstmError	87.22%	81.27%	0		

Bump

	Sample1	Sample2	Orig.	Estm1	Estm2
PointCnt	520	5560	55692	55692	55692
QuantIntv	20000	20000	20000	20000	20000
NodeCnt	517	2931	7639	3241	4573
HitRatio	0.9692	0.9872	0.9959	0.9692	0.9872
TreeSize	4654	26380	68752		
EncodeSize	448	5579	56445		
OutlierCnt	14	69	229	1715	712
OutlierSize	58	207	793		
TotalSize	2857	18143	87220		
CR	1.46	2.45	5.11		
EstmError	71.43%	52.05%	0		

Dpot

	Sample1	Sample2	Orig.	Estm1	Estm2
PointCnt	200	2040	20694	20694	20694

	Sample1	Sample2	Orig.	Estm1	Estm2
QuantIntv	65536	65536	65536	65536	65536
NodeCnt	3	79	771	326	453
HitRatio	0.39	0.1353	0.2194	0.39	0.1353
TreeSize	22	554	6940		
EncodeSize	25	315	3574		
OutlierCnt	120	1762	16151	12623	17894
OutlierSize	341	6164	51684		
TotalSize	588	7552	68968		
CR	2.72	2.16	2.40		
EstmError	-13.33%	9.99%	0		

Eddy

	Sample1	Sample2	Orig.	Estm1	Estm2
PointCnt	2800	28240	282616	282616	282616
QuantIntv	65536	65536	65536	65536	65536
NodeCnt	539	5185	30875	14968	25346
HitRatio	0.0968	0.0982	0.1042	0.0968	0.0982
TreeSize	4852	46666	277876		
EncodeSize	924	10462	115735		
OutlierCnt	2527	25464	253164	255258	254863
OutlierSize	8083	84285	860716		
TotalSize	14294	136770	1233226		
CR	1.57	1.65	1.83		
EstmError	14.21%	9.84%	0		

Fish

	Sample1	Sample2	Orig.	Estm1	Estm2
PointCnt	640	6520	65536	65536	65536
QuantIntv	10000	10000	10000	10000	10000
NodeCnt	79	763	9485	4547	5231
HitRatio	0.9438	0.9333	0.9333	0.9438	0.9333
TreeSize	554	6868	85366		
EncodeSize	182	2009	25864		
OutlierCnt	34	433	4372	3863	4371
OutlierSize	104	1312	13122		
TotalSize	540	5367	64632		
CR	9.48	9.72	8.11		
EstmError	-16.89%	-19.85%	0		

Sedov_p

	Sample1	Sample2	Orig.	Estm1	Estm2
PointCnt	760	7800	78144	78144	78144
QuantIntv	320	320	320	320	320
NodeCnt	87	237	347	165	289
HitRatio	0.9974	0.9997	0.9999	0.9974	0.9997
TreeSize	610	1660	3124		
EncodeSize	288	2805	28013		
OutlierCnt	2	2	2	203	23
OutlierSize	6	6	6		
TotalSize	655	3379	24164		
CR	9.28	18.47	25.87		
EstmError	64.13%	28.60%	0		

Yf17_p

	Sample1	Sample2	Orig.	Estm1	Estm2
PointCnt	960	9680	97104	97104	97104
QuantIntv	20000	20000	20000	20000	20000
NodeCnt	1091	7725	27229	13119	21758
HitRatio	0.9604	0.9584	0.9526	0.9604	0.9584
TreeSize	9820	69526	245062		
EncodeSize	950	12005	131907		
OutlierCnt	36	401	4597	3845	4039
OutlierSize	112	1213	13842		
TotalSize	3462	34859	257349		
CR	2.22	2.22	3.02		
EstmError	26.49%	26.49%	0		

Yf17_t

	Sample1	Sample2	Orig.	Estm1	Estm2
PointCnt	960	9680	97104	97104	97104
QuantIntv	20000	20000	20000	20000	20000
NodeCnt	1049	5273	13321	7011	8731
HitRatio	0.9979	0.9991	0.9993	0.9979	0.9991
TreeSize	9442	47458	119890	63105	78580
EncodeSize	941	11143	116802	1197	11798
OutlierCnt	2	7	65	203	87
OutlierSize	6	24	214	609	298
TotalSize	3297	32743	169505	64911	90676
CR	2.33	2.37	4.58		

	Sample1	Sample2	Orig.	Estm1	Estm2
EstmError	49.13%	48.25%	0		