Facet Repository

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1 Scenario Analysis

In this chapter we present the results obtained from a variety of analysed symmetric scenarios indexed with the notation used throughout this work i.e (X,Y,A,B). For every scenario we classified every facet and for every class we give its local bound, its quantum bound, the minimum detection efficiency, its resistance to noise and the minimum dimension that one needs to use to achieve the highest possible score. The first scenarios, although trivial and previously analysed, were used as testing benchmarks for the codes developed and therefore are also presented. The representative facets for each class identified can be found in annex A.

It is also important to notice that due to symmetries some scenarios are equivalent to others. Indeed, the scenario where Alice has 2 outputs for 6 inputs and Bob has 2 outputs for 3 inputs is equivalent to the scenario where Alice has 2 outputs for 3 inputs and Bob has 2 outputs for 6 inputs even if internally these is not a symmetry present in the classes. Therefore, scenarios that would be equivalent to scenarios already analysed are not re-included in this work.

In this work, the resources of Intel Devcloud were freely used. This cloud computing service allowed the usage of 24 Intel Core i9 processors and access to 96gb of RAM, which goes beyond what any personal laptop can achieve.

1.1 (2,2,2,2)

In the (2,2,2,2) scenario there are 2 classes of facets - 16 trivial positivity facets and 8 non-trival CHSH facets - for a total of 24. The properties of the non-trivial facets are:

Table 1: Non Trivial Classes of Facets for the CHSH scenario

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
1	CHSH	[[2,2],[2,2]]	8	0.2071	0.8284	0.7071	2

It is important to note that as shown by Pironio in [**?**] any scenario of the type (2,d,2,m) will only have CHSH facets as its non-trivial facets so scenarios of this type and so we don't present additional scenarios of this type.

1.2 (3,3,2,2)

In the (3,3,2,2) scenario there are 3 classes of facets of which 2 are non-trivial for a total of 684 facets (36 are positivity). Of the non-trivial ones only 1 is not a lifted facet.The properties of the non-trivial facets are:

Table 2: Non Trivial Classes of Facets for the (3,3,2,2) scenario

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
1	CHSH	[[2,2],[2,2]]	72	0.2071	0.8284	0.7071	2
2	I3322	[[2,2,2],[2,2,2]]	576	0.2509	0.8319	0.7994	2

1.3 (4,3,2,2)

In the (4,3,2,2) scenario there are 6 classes of facets of which 5 are non-trivial facets for a total of 12480 facets (48 are positivity). Of the non-trivial ones only 3 are not lifted facets. The properties of the non-trivial facets are:

Table 3: Non Trivial Classes of Facets for the (4,3,2,2) scenario

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
1	CHSH	[[2,2],[2,2]]	144	0.2071	0.8284	0.7071	2
2	I3322	[[2,2,2],[2,2,2]]]	2304	0.2509	0.8319	0.7994	2
4	$I4322^1$	[[2,2,2,2],[2,2,2]]	2304	1.4142	0.8284	0.7071	2
3	$I4322^2$	[[2,2,2,2],[2,2,2]]	3072	0.2990	0.8699	0.7698	2
5	$I4322^3$	[[2,2,2,2],[2,2,2]]	4608	1.4365	0.8514	0.7746	2

1.4 (5,3,2,2)

In the (5,3,2,2) scenario there are 7 classes of facets of which 6 are non-trivial facets for a total of 71340 facets (60 are positivity). Of the non-trivial ones only 1 is a non lifted facet. The properties of the non-trivial facets are:

Table 4: Non Trivial Classes of Facets for the (5,3,2,2) scenario

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
1	CHSH	[[2,2],[2,2]]	240	0.2071	0.8284	0.7071	2
2	$I3322$	[[2,2,2],[2,2,2]]	5760	0.2509	0.8319	0.7994	2
3	$I4322^1$	[[2,2,2,2],[2,2,2]]	11520	1.4142	0.8284	0.7071	2
4	$I4322^2$	[[2,2,2,2],[2,2,2]]	15360	0.2990	0.8699	0.7698	2
5	$I4322^3$	[[2,2,2,2],[2,2,2]]	23040	1.4365	0.8514	0.7746	2
6	$I5322$	[[2,2,2,2,2],[2,2,2]]	15360	0.4843	0.8377	0.7559	4

1.5 (6,3,2,2)

In the (6,3,2,2) scenario there are 7 classes of facets all of which are lifted for a total of 253 872 facets (72 are positivity facets).

Table 5: Non Trivial Classes of Facets for the (6,3,2,2) scenario

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
1	CHSH	[[2,2],[2,2]]	360	0.2071	0.8284	0.7071	2
2	I3322	[[2,2,2],[2,2,2]]	11520	0.2509	0.8319	0.7994	2
3	$I4322^1$	[[2,2,2,2],[2,2,2]]	34560	1.4142	0.8284	0.7071	2
4	$I4322^2$	[[2,2,2,2],[2,2,2]]	46080	0.2990	0.8699	0.7698	2
5	$I4322^3$	[[2,2,2,2],[2,2,2]]	69120	1.4365	0.8514	0.77746	2
6	I5322	[[2,2,2,2,2],[2,2,2]]	92160	0.4843	0.8377	0.7559	4

Although the completeness of this scenario had already been conjectured this is the first time that the scenario has been fully analyzed and shown to be complete.

1.6 (4,4,2,2)

In the (4,4,2,2) scenario there are 175 classes of facets for a total of 36 391 264 (of which 64 are positivity facets). Of the non-trivial classes, 5 correspond to liftings. These results confirm the results obtained in [**?**].

Given the high degree of complexity of the scenario and that the complete list of facets was already known, this poses an excellent benchmark test for our new approach. Indeed, using a single inequality from the $I3322$ class to provide a cut we obtain 40,57% of all the available classes. This cut polytope was solved in less than 20 seconds which clearly shows the strength of this approach. Iterating with more facets allows for a more complete description, which was then used by $PANDA$ to completely solve the scenario.

Table 6: Non Trivial Classes of Facets for the (4,4,2,2) scenario

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
1	CHSH	[[2,2],[2,2]]	288	0.2071	0.8284	0.7071	2
2	I3322	[[2,2,2],[2,2,2]]	9216	0.2509	0.8319	0.7994	2
3	$I4322^1$	[[2,2,2,2],[2,2,2]]	18432	0.2990	0.8699	0.7698	2
4	$I4322^2$	[[2,2,2,2],[2,2,2]]	24576	1.4142	0.8284	0.7071	2
5	$I4322^3$	[[2,2,2,2],[2,2,2]]	36864	1.4365	0.8514	0.7746	2
6	F_1	[[2,2,2,2],[2,2,2,2]]	9216	1.8785	0.8506	0.7400	2
7	F_2	[[2,2,2,2],[2,2,2,2]]	18432	1.5412	0.8472	0.7348	2
8	F_3	[[2,2,2,2],[2,2,2,2]]	18432	0.4995	0.8697	0.8159	5
9	F_4	[[2,2,2,2],[2,2,2,2]]	18432	1.4142	0.8284	0.7071	2
10	F_5	[[2,2,2,2],[2,2,2,2]]	36864	0.5902	0.8535	0.7922	2
11	F_6	[[2,2,2,2],[2,2,2,2]]	36864	0.2879	0.8179	0.8128	4
12	F_7	[[2,2,2,2],[2,2,2,2]]	36864	0.4142	0.8284	0.7071	2
13	F_8	[[2,2,2,2],[2,2,2,2]]	49152	0.7262	0.8695	0.8322	6
14	F_9	[[2,2,2,2],[2,2,2,2]]	49152	0.3008	0.8489	0.7688	2
15	F_{10}	[[2,2,2,2],[2,2,2,2]]	73278	2.6742	0.8648	0.8165	2
16	F_{11}	[[2,2,2,2],[2,2,2,2]]	73278	2.9643	0.8508	0.7568	4
17	F_{12}	[[2,2,2,2],[2,2,2,2]]	73278	1.5922	0.8531	0.7715	2
18	F_{13}	[[2,2,2,2],[2,2,2,2]]	73278	0.4718	0.8661	0.8399	7
19	F_{14}	[[2,2,2,2],[2,2,2,2]]	73278	1.6214	0.8441	0.7630	2
20	F_{15}	[[2,2,2,2],[2,2,2,2]]	73278	1.5148	0.8535	0.7445	2
21	F_{16}	[[2,2,2,2],[2,2,2,2]]	73278	1.4142	0.8284	0.7071	2
22	F_{17}	[[2,2,2,2],[2,2,2,2]]	73278	0.4365	0.8514	0.7746	2
23	F_{18}	[[2,2,2,2],[2,2,2,2]]	98304	0.7692	0.8667	0.8083	3
24	F_{19}	[[2,2,2,2],[2,2,2,2]]	98304	0.5283	0.8773	0.8252	5
25	F_{20}	[[2,2,2,2],[2,2,2,2]]	147456	5.7261	0.8496	0.7766	2
26	F_{21}	[[2,2,2,2],[2,2,2,2]]	147456	4.0130	0.8555	0.7476	2
27	F_{22}	[[2,2,2,2],[2,2,2,2]]	147456	1.0096	0.8531	0.7985	2
28	F_{23}	[[2,2,2,2],[2,2,2,2]]	147456	2.1590	0.8690	0.8118	2
29	F_{24}	[[2,2,2,2],[2,2,2,2]]	147456	1.0246	0.8504	0.8104	9
30	F_{25}	[[2,2,2,2],[2,2,2,2]]	147456	0.9999	0.8541	0.8000	2
31	F_{26}	[[2,2,2,2],[2,2,2,2]]	147456	2.9410	0.8473	0.7881	2
32	F_{27}	[[2,2,2,2],[2,2,2,2]]	147456	1.9763	0.8635	0.8038	2
33	F_{28}	[[2,2,2,2],[2,2,2,2]]	147456	4.0648	0.8578	0.7997	2
34	F_{29}	[[2,2,2,2],[2,2,2,2]]	147456	4.2993	0.8507	0.7659	2
35	F_{30}	[[2,2,2,2],[2,2,2,2]]	147456	0.8814	0.8395	0.7185	2
36	F_{31}	[[2,2,2,2],[2,2,2,2]]	147456	3.0742	0.8461	0.7883	2
37	F_{32}	[[2,2,2,2],[2,2,2,2]]	147456	0.8704	0.8414	0.8008	2
38	F_{33}	[[2,2,2,2],[2,2,2,2]]	147456	1.7308	0.8549	0.7900	2
39	F_{34}	[[2,2,2,2],[2,2,2,2]]	147456	2.8175	0.8631	0.7858	2
40	F_{35}	[[2,2,2,2],[2,2,2,2]]	147456	1.9721	0.8650	0.7940	5
41	F_{36}	[[2,2,2,2],[2,2,2,2]]	147456	0.6927	0.8460	0.8124	3
42	F_{37}	[[2,2,2,2],[2,2,2,2]]	147456	1.0135	0.8483	0.7754	2
43	F_{38}	[[2,2,2,2],[2,2,2,2]]	147456	0.6782	0.8544	0.8022	2
44	F_{39}	[[2,2,2,2],[2,2,2,2]]	147456	0.6067	0.8616	0.7672	2

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Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
45	F_{40}	[[2,2,2,2],[2,2,2,2]]	147456	0.7559	0.8578	0.8113	2
46	F_{41}	[[2,2,2,2],[2,2,2,2]]	147456	0.9457	0.8574	0.7746	2
47	F_{42}	[[2,2,2,2],[2,2,2,2]]	147456	0.7500	0.8610	0.8125	2
48	F_{43}	[[2,2,2,2],[2,2,2,2]]	147456	2.8490	0.8776	0.8249	2
49	F_{44}	[[2,2,2,2],[2,2,2,2]]	147456	0.9676	0.8544	0.7949	2
50	F_{45}	[[2,2,2,2],[2,2,2,2]]	147456	0.6692	0.8551	0.8043	2
51	F_{46}	[[2,2,2,2],[2,2,2,2]]	147456	1.6706	0.8423	0.8039	2
52	F_{47}	[[2,2,2,2],[2,2,2,2]]	147456	0.6151	0.8435	0.7853	2
53	F_{48}	[[2,2,2,2],[2,2,2,2]]	147456	2.8156	0.8602	0.7862	2
54	F_{49}	[[2,2,2,2],[2,2,2,2]]	147456	1.8398	0.8423	0.7813	2
55	F_{50}	[[2,2,2,2],[2,2,2,2]]	147456	2.6380	0.8624	0.7582	2
56	F_{51}	[[2,2,2,2],[2,2,2,2]]	147456	0.6402	0.8426	0.7575	2
57	F_{52}	[[2,2,2,2],[2,2,2,2]]	147456	0.6650	0.8432	0.8053	2
58	F_{53}	[[2,2,2,2],[2,2,2,2]]	147456	2.7501	0.8610	0.8000	2
59	F_{54}	[[2,2,2,2],[2,2,2,2]]	147456	2.7596	0.8578	0.7980	2
60	F_{55}	[[2,2,2,2],[2,2,2,2]]	147456	2.6722	0.8723	0.7881	2
61	F_{56}	[[2,2,2,2],[2,2,2,2]]	147456	0.4685	0.8666	0.8277	4
62	F_{57}	[[2,2,2,2],[2,2,2,2]]	147456	1.6430	0.8021	0.7917	3
63	F_{58}	[[2,2,2,2],[2,2,2,2]]	147456	0.5823	0.8572	0.7944	2
64	F_{59}	[[2,2,2,2],[2,2,2,2]]	147456	0.4617	0.8377	0.8441	2
65	F_{60}	[[2,2,2,2],[2,2,2,2]]	147456	2.4972	0.8677	0.8373	4
66	F_{61}	[[2,2,2,2],[2,2,2,2]]	147456	1.6317	0.8471	0.7600	2
67	F_{62}	[[2,2,2,2],[2,2,2,2]]	147456	0.5996	0.8518	0.7896	2
68	F_{63}	[[2,2,2,2],[2,2,2,2]]	147456	0.5195	0.8346	0.7734	3
69	F_{64}	[[2,2,2,2],[2,2,2,2]]	147456	1.6317	0.8471	0.7600	2
70	F_{65}	[[2,2,2,2],[2,2,2,2]]	147456	1.6188	0.8315	0.7843	2
71	F_{66}	[[2,2,2,2],[2,2,2,2]]	147456	1.4878	0.8708	0.7546	2
72	F_{67}	[[2,2,2,2],[2,2,2,2]]	147456	1.6714	0.8612	0.7883	2
73	F_{68}	[[2,2,2,2],[2,2,2,2]]	147456	2.6139	0.8440	0.8175	2
74	F_{69}	[[2,2,2,2],[2,2,2,2]]	147456	1.7576	0.8531	0.7674	2
75	F_{70}	[[2,2,2,2],[2,2,2,2]]	147456	1.6079	0.8639	0.7873	2
76	F_{71}	[[2,2,2,2],[2,2,2,2]]	147456	1.5338	0.8513	0.7893	2
77	F_{72}	[[2,2,2,2],[2,2,2,2]]	147456	0.4554	0.8245	0.7935	2
78	F_{73}	[[2,2,2,2],[2,2,2,2]]	147456	0.4794	0.8622	0.7735	3
79	F_{74}	[[2,2,2,2],[2,2,2,2]]	147456	1.5000	0.8508	0.8000	2
80	F_{75}	[[2,2,2,2],[2,2,2,2]]	147456	1.6384	0.8458	0.7790	2
81	F_{76}	[[2,2,2,2],[2,2,2,2]]	147456	1.4349	0.8369	0.7753	2
82	F_{77}	[[2,2,2,2],[2,2,2,2]]	147456	0.4349	0.8454	0.7753	2
83	F_{78}	[[2,2,2,2],[2,2,2,2]]	147456	0.4548	0.8377	0.7931	5
84	F_{79}	[[2,2,2,2],[2,2,2,2]]	147456	1.6056	0.8281	0.7676	2
85	F_{80}	[[2,2,2,2],[2,2,2,2]]	147456	0.4353	0.8179	0.7751	2
86	F_{81}	[[2,2,2,2],[2,2,2,2]]	147456	5.5876	0.8535	0.7836	2
87	F_{82}	[[2,2,2,2],[2,2,2,2]]	147456	3.0999	0.8552	0.7944	2
88	F_{83}	[[2,2,2,2],[2,2,2,2]]	294912	1.0641	0.8470	0.7790	2
89	F_{84}	[[2,2,2,2],[2,2,2,2]]	294912	3.4377	0.8474	0.7850	2
90	F_{85}	[[2,2,2,2],[2,2,2,2]]	294912	2.0189	0.8608	0.8154	2
91	F_{86}	[[2,2,2,2],[2,2,2,2]]	294912	1.0653	0.8553	0.8086	2
92	F_{87}	[[2,2,2,2],[2,2,2,2]]	294912	4.3250	0.8614	0.7905	4
93	F_{88}	[[2,2,2,2],[2,2,2,2]]	294912	2.1110	0.8476	0.7826	2
94	F_{89}	[[2,2,2,2],[2,2,2,2]]	294912	4.2675	0.8505	0.7894	2
95	F_{90}	[[2,2,2,2],[2,2,2,2]]	294912	3.9209	0.8801	0.8301	2

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Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
96	F_{91}	[[2,2,2,2],[2,2,2,2]]	294912	5.1228	0.8735	0.8408	7
97	F_{92}	[[2,2,2,2],[2,2,2,2]]	294912	1.0076	0.8617	0.7882	2
98	F_{93}	[[2,2,2,2],[2,2,2,2]]	294912	2.0014	0.8627	0.8180	2
99	F_{94}	[[2,2,2,2],[2,2,2,2]]	294912	3.0670	0.8627	0.8083	2
100	F_{95}	[[2,2,2,2],[2,2,2,2]]	294912	1.9295	0.8594	0.8205	2
101	F_{96}	[[2,2,2,2],[2,2,2,2]]	294912	1.0520	0.8481	0.8105	2
102	F_{97}	[[2,2,2,2],[2,2,2,2]]	294912	1.0296	0.8411	0.7953	2
103	F_{98}	[[2,2,2,2],[2,2,2,2]]	294912	2.0156	0.8505	0.7975	2
104	F_{99}	[[2,2,2,2],[2,2,2,2]]	294912	0.9333	0.8719	0.8007	2
105	F_{100}	[[2,2,2,2],[2,2,2,2]]	294912	0.8986	0.8599	0.7957	2
106	F_{101}	[[2,2,2,2],[2,2,2,2]]	294912	2.8610	0.8516	0.8133	2
107	F_{102}	[[2,2,2,2],[2,2,2,2]]	294912	0.8258	0.8452	0.7841	2
108	F_{103}	[[2,2,2,2],[2,2,2,2]]	294912	1.8192	0.8435	0.7855	3
109	F_{104}	[[2,2,2,2],[2,2,2,2]]	294912	1.8157	0.8710	0.7862	2
110	F_{105}	[[2,2,2,2],[2,2,2,2]]	294912	1.8264	0.8698	0.8194	2
111	F_{106}	[[2,2,2,2],[2,2,2,2]]	294912	3.1497	0.8579	0.7767	2
112	F_{107}	[[2,2,2,2],[2,2,2,2]]	294912	2.8093	0.8562	0.8225	2
113	F_{108}	[[2,2,2,2],[2,2,2,2]]	294912	1.7519	0.8670	0.7962	4
114	F_{109}	[[2,2,2,2],[2,2,2,2]]	294912	2.9051	0.8611	0.7945	2
115	F_{110}	[[2,2,2,2],[2,2,2,2]]	294912	2.9717	0.8653	0.7942	2
116	F_{111}	[[2,2,2,2],[2,2,2,2]]	294912	3.0036	0.8568	0.7889	2
117	F_{112}	[[2,2,2,2],[2,2,2,2]]	294912	2.9167	0.8633	0.7924	2
118	F_{113}	[[2,2,2,2],[2,2,2,2]]	294912	4.0098	0.8532	0.8080	2
119	F_{114}	[[2,2,2,2],[2,2,2,2]]	294912	1.8284	0.8579	0.7511	2
120	F_{115}	[[2,2,2,2],[2,2,2,2]]	294912	1.7706	0.8524	0.7644	2
121	F_{116}	[[2,2,2,2],[2,2,2,2]]	294912	4.0179	0.8475	0.7747	2
122	F_{117}	[[2,2,2,2],[2,2,2,2]]	294912	0.6938	0.8574	0.8377	4
123	F_{118}	[[2,2,2,2],[2,2,2,2]]	294912	2.8106	0.8475	0.8119	2
124	F_{119}	[[2,2,2,2],[2,2,2,2]]	294912	0.6719	0.8380	0.8052	3
125	F_{120}	[[2,2,2,2],[2,2,2,2]]	294912	2.0523	0.8471	0.7688	2
126	F_{121}	[[2,2,2,2],[2,2,2,2]]	294912	0.9340	0.8573	0.7768	2
127	F_{122}	[[2,2,2,2],[2,2,2,2]]	294912	1.9417	0.8605	0.7993	2
128	F_{123}	[[2,2,2,2],[2,2,2,2]]	294912	0.6520	0.8435	0.6970	2
129	F_{124}	[[2,2,2,2],[2,2,2,2]]	294912	1.8938	0.8549	0.7705	2
130	F_{125}	[[2,2,2,2],[2,2,2,2]]	294912	1.7017	0.8501	0.7983	3
131	F_{126}	[[2,2,2,2],[2,2,2,2]]	294912	0.7808	0.8368	0.7620	2
132	F_{127}	[[2,2,2,2],[2,2,2,2]]	294912	0.6933	0.8376	0.7987	2
133	F_{128}	[[2,2,2,2],[2,2,2,2]]	294912	0.8382	0.8539	0.7816	2
134	F_{129}	[[2,2,2,2],[2,2,2,2]]	294912	0.7645	0.8684	0.8096	2
135	F_{130}	[[2,2,2,2],[2,2,2,2]]	294912	1.8991	0.8537	0.7956	2
136	F_{131}	[[2,2,2,2],[2,2,2,2]]	294912	1.5971	0.8625	0.7456	2
137	F_{132}	[[2,2,2,2],[2,2,2,2]]	294912	0.6750	0.8662	0.7874	2
138	F_{133}	[[2,2,2,2],[2,2,2,2]]	294912	1.8556	0.8474	0.7781	2
139	F_{134}	[[2,2,2,2],[2,2,2,2]]	294912	1.6943	0.8947	0.7984	2
140	F_{135}	[[2,2,2,2],[2,2,2,2]]	294912	2.7737	0.8399	0.7637	2
141	F_{136}	[[2,2,2,2],[2,2,2,2]]	294912	1.9539	0.8465	0.7731	2
142	F_{137}	[[2,2,2,2],[2,2,2,2]]	294912	2.9627	0.8503	0.7715	2
143	F_{138}	[[2,2,2,2],[2,2,2,2]]	294912	1.8406	0.8566	0.7811	2
144	F_{139}	[[2,2,2,2],[2,2,2,2]]	294912	1.6380	0.8624	0.7582	2
145	F_{140}	[[2,2,2,2],[2,2,2,2]]	294912	2.5674	0.8829	0.8409	2
146	F_{141}	[[2,2,2,2],[2,2,2,2]]	294912	1.6244	0.8641	0.8295	6

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Table 6 – continued from previous page

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
147	F_{142}	[[2,2,2,2],[2,2,2,2]]	294912	2.8291	0.8554	0.7835	2
148	F_{143}	[[2,2,2,2],[2,2,2,2]]	294912	1.6849	0.8528	0.7666	2
149	F_{144}	[[2,2,2,2],[2,2,2,2]]	294912	1.6862	0.8610	0.8087	5
150	F_{145}	[[2,2,2,2],[2,2,2,2]]	294912	2.7931	0.8446	0.7592	2
151	F_{146}	[[2,2,2,2],[2,2,2,2]]	294912	1.5932	0.8261	0.7468	2
152	F_{147}	[[2,2,2,2],[2,2,2,2]]	294912	2.7213	0.8548	0.7761	2
153	F_{148}	[[2,2,2,2],[2,2,2,2]]	294912	2.7878	0.8592	0.7920	4
154	F_{149}	[[2,2,2,2],[2,2,2,2]]	294912	2.7652	0.8604	0.7965	5
155	F_{150}	[[2,2,2,2],[2,2,2,2]]	294912	2.8024	0.8592	0.7890	4
156	F_{151}	[[2,2,2,2],[2,2,2,2]]	294912	2.4516	0.9024	0.8470	4
157	F_{152}	[[2,2,2,2],[2,2,2,2]]	294912	0.4405	0.8774	0.8556	9
158	F_{153}	[[2,2,2,2],[2,2,2,2]]	294912	0.6057	0.8335	0.7854	3
159	F_{154}	[[2,2,2,2],[2,2,2,2]]	294912	0.4772	0.8586	0.8073	2
160	F_{155}	[[2,2,2,2],[2,2,2,2]]	294912	1.4772	0.8585	0.8073	2
161	F_{156}	[[2,2,2,2],[2,2,2,2]]	294912	1.6140	0.8502	0.7856	2
162	F_{157}	[[2,2,2,2],[2,2,2,2]]	294912	0.5000	0.8284	0.8000	2
163	F_{158}	[[2,2,2,2],[2,2,2,2]]	294912	2.5944	0.8668	0.7910	2
164	F_{159}	[[2,2,2,2],[2,2,2,2]]	294912	0.6090	0.8456	0.7870	2
165	F_{160}	[[2,2,2,2],[2,2,2,2]]	294912	0.62475	0.8565	0.7827	2
166	F_{161}	[[2,2,2,2],[2,2,2,2]]	294912	1.4865	0.8455	0.8130	4
167	F_{162}	[[2,2,2,2],[2,2,2,2]]	294912	0.6160	0.8445	0.7645	2
168	F_{163}	[[2,2,2,2],[2,2,2,2]]	294912	1.6186	0.8420	0.7843	2
169	F_{164}	[[2,2,2,2],[2,2,2,2]]	294912	1.6270	0.8534	0.7821	2
170	F_{165}	[[2,2,2,2],[2,2,2,2]]	294912	0.4462	0.8331	0.7237	2
171	F_{166}	[[2,2,2,2],[2,2,2,2]]	294912	1.4686	0.8413	0.7805	3
172	F_{167}	[[2,2,2,2],[2,2,2,2]]	294912	1.5081	0.8540	0.7750	2
173	F_{168}	[[2,2,2,2],[2,2,2,2]]	294912	1.4349	0.8322	0.8010	2
174	F_{169}	[[2,2,2,2],[2,2,2,2]]	294912	1.4144	0.8436	0.8085	2

1.7 (2,2,3,3)

In the (2,2,3,3) scenario there are 4 classes pf which 3 are non-trivial for a total of 1116 facets (36 are positivity facets). Of the non-trivial classes only 1 is non-lifted.

Table 7: Non Trivial Classes of Facets for the (2,2,3,3) scenario

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
1	CHSH	[[2,2],[2,2]]	324	0.2071	0.8284	0.7071	2
2	CHSH	[[2,2],[2,2]]	324	0.2071	0.8284	0.7071	2
3	I2233	[[3,3],[3,3]]	432	0.3050	0.8139	0.6861	3

In this scenario we can clearly see what was explained in section 2.7 for we have to classes that correspond to a lifting of CHSH but said lifting breaks the symmetry of the class and they can no longer be considered to be the same in this scenario

1.8 (2,2,3,4)

In this scenario there are 9 classes for a total of 19128 facets (48 are positivity facets). All classes are lifted inequalities and their branching results from the already mentioned breaking of symmetry upon lifting.

Table 8: Non Trivial Classes of Facets for the (2,2,3,4) scenario

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
1	CHSH	[[2,2],[2,2]]	432	0.2071	0.8284	0.7071	2
2	CHSH	[[2,2],[2,2]]	432	0.2071	0.8284	0.7071	2
3	CHSH	[[2,2],[2,2]]	576	0.2071	0.8284	0.7071	2
4	CHSH	[[2,2],[2,2]]	576	0.2071	0.8284	0.7071	2
5	CHSH	[[2,2],[2,2]]	648	0.2071	0.8284	0.7071	2
6	CHSH	[[2,2],[2,2]]	864	0.2071	0.8284	0.7071	2
7	I2233	[[3,3],[3,3]]	5185	0.3050	0.8139	0.6861	3
8	I2233	[[3,3],[3,3]]	10368	0.3050	0.8139	0.6861	3

To the best knowledge of the author, this is the first time that this scenario has been solved in the literature.

1.9 (2,2,3,5)

In this scenario there are 15 classes for a total of 286 260 facets (60 are positivity facets). All classes are lifted inequalities and their branching results from the already mentioned breaking of symmetry upon lifting.

Table 9: Non Trivial Classes of Facets for the (2,2,3,4) scenario

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
1	CHSH	[[2,2],[2,2]]	900	0.2071	0.8284	0.7071	2
2	CHSH	[[2,2],[2,2]]	900	0.2071	0.8284	0.7071	2
3	CHSH	[[2,2],[2,2]]	1800	0.2071	0.8284	0.7071	2
4	CHSH	[[2,2],[2,2]]	1800	0.2071	0.8284	0.7071	2
5	CHSH	[[2,2],[2,2]]	1800	0.2071	0.8284	0.7071	2
6	CHSH	[[2,2],[2,2]]	1800	0.2071	0.8284	0.7071	2
7	CHSH	[[2,2],[2,2]]	3600	0.2071	0.8284	0.7071	2
8	CHSH	[[2,2],[2,2]]	3600	0.2071	0.8284	0.7071	2
9	I2233	[[3,3],[3,3]]	14400	0.3050	0.8139	0.6861	3
10	I2233	[[3,3],[3,3]]	28800	0.3050	0.8139	0.6861	3
11	I2233	[[3,3],[3,3]]	32400	0.3050	0.8139	0.6861	3
12	I2233	[[3,3],[3,3]]	43200	0.3050	0.8139	0.6861	3
13	I2233	[[3,3],[3,3]]	64800	0.3050	0.8139	0.6861	3
14	I2233	[[3,3],[3,3]]	86400	0.3050	0.8139	0.6861	3

To the best knowledge of the author, this is the first time that this scenario has been solved in the literature.

1.10 (2,2,4,4)

In this scenario there are a total of 11 665 992 facets (64 are positivity facets). They are classified into 34 facets of which only 10 are non-lifted:

Table 10: Non Trivial Classes of Facets for the (2,2,4,4) scenario

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
1	CHSH	[[2,2],[2,2]]	648	0.2071	0.8284	0.7071	2
2	CHSH	[[2,2],[2,2]]	1024	0.2071	0.8284	0.7071	2
3	CHSH	[[2,2],[2,2]]	1024	0.2071	0.8284	0.7071	2
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Table 10 – continued from previous page

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
4	CHSH	[[2,2],[2,2]]	1536	0.2071	0.8284	0.7071	2
5	CHSH	[[2,2],[2,2]]	1536	0.2071	0.8284	0.7071	2
6	CHSH	[[2,2],[2,2]]	2304	0.2071	0.8284	0.7071	2
7	CHSH	[[2,2],[2,2]]	2304	0.2071	0.8284	0.7071	2
8	CHSH	[[2,2],[2,2]]	2304	0.2071	0.8284	0.7071	2
9	CHSH	[[2,2],[2,2]]	3072	0.2071	0.8284	0.7071	2
10	CHSH	[[2,2],[2,2]]	3456	0.2071	0.8284	0.7071	2
11	I2233	[[3,3],[3,3]]	20736	0.3050	0.8139	0.6861	3
12	I2233	[[3,3],[3,3]]	41472	0.3050	0.8139	0.6861	3
13	I2233	[[3,3],[3,3]]	82944	0.3050	0.8139	0.6861	3
14	I2233	[[3,3],[3,3]]	82944	0.3050	0.8139	0.6861	3
15	I2233	[[3,3],[3,3]]	82944	0.3050	0.8139	0.6861	3
16	I2233	[[3,3],[3,3]]	82944	0.3050	0.8139	0.6861	3
17	I2233	[[3,3],[3,3]]	165888	0.3050	0.8139	0.6861	3
18	J	[[3,4],[3,4]]	165888	0.4142	0.8284	0.7071	2
19	J	[[3,4],[3,4]]	331776	0.4142	0.8284	0.7071	2
20	J	[[3,4],[3,4]]	331776	0.4142	0.8284	0.7071	2
21	J	[[3,4],[3,4]]	663552	0.4142	0.8284	0.7071	2
22	A	[[3,4],[4,4]]	331776	0.4142	0.8284	0.7071	2
23	A	[[3,4],[4,4]]	663552	0.4142	0.8284	0.7071	2
24	$I2244^{1}$	[[4,4],[4,4]]	82944	0.3648	0.8044	0.6728	4
25	$I2244^{2}$	[[4,4],[4,4]]	221184	0.4142	0.8284	0.7071	2
26	$I2244^{3}$	[[4,4],[4,4]]	331776	0.6213	0.8284	0.7071	2
27	$I2244^{4}$	[[4,4],[4,4]]	663552	0.4527	0.8283	0.7341	4
28	$I2244^{5}$	[[4,4],[4,4]]	663552	0.4142	0.8284	0.7071	2
29	$I2244^{6}$	[[4,4],[4,4]]	1327104	0.6213	0.8284	0.7071	2
30	$I2244^{7}$	[[4,4],[4,4]]	1327104	0.4485	0.8156	0.7316	3
31	$I2244^{8}$	[[4,4],[4,4]]	1327104	0.4681	0.8185	0.7062	4
32	$I2244^{9}$	[[4,4],[4,4]]	1327104	0.4733	0.8074	0.7039	4
33	$I2244^{10}$	[[4,4],[4,4]]	1327104	0.4564	0.8142	0.7088	3

Although we could not prove the scenario to be complete, we strongly suspect that there are no more classes of inequalities present in this scenario. This belief stems from the fact that no new classes arose after a long period of cutting the polytope and computing the resulting classes.

1.11 (2,3,3,2)

In the (2,3,3,2) scenario there are 5 classes for a total of 1260 facets (36 are positivity facets). 1 is the trivial positivity class and of the 4 classes are non-lifted and their properties are:

Table 11: Non Trivial Classes of Facets for the (2,3,3,2) scenario

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
1	CHSH	[[2,2],[2,2]]	216	0.2071	0.8284	0.7071	2
2	I[[2,3],[2,2,2]]	[[2,3],[2,2,2]]	288	0.2532	0.8300	0.7247	3
3	I[[2,3],[2,2,2]]	[[2,3],[2,2,2]]	288	0.2532	0.8300	0.7247	3
4	I2332	[[3,3],[2,2,2]]	432	0.4142	0.8284	0.7071	2

1.12 (3,2,3,3)

In this scenario there are a total of 793 854 facets (54 are positivity facets). They are classified into 38 facets of which only 5 are non-lifted:

Table 12: Non Trivial Classes of Facets for the (3,2,3,3) scenario

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
1	CHSH	[[2,2],[2,2]]	972	0.2071	0.8284	0.7071	2
2	CHSH	[[2,2],[2,2]]	972	0.2071	0.8284	0.7071	2
3	I[[2,2,2],[2,3]]	[[2,2,2],[2,3]]	972	0.2532	0.8301	0.7247	3
4	I[[2,2,2],[2,3]]	[[2,2,2],[2,3]]	972	0.2532	0.8301	0.7247	3
5	I[[2,2,2],[2,3]]	[[2,2,2],[2,3]]	972	0.2532	0.8301	0.7247	3
6	I[[2,2,2],[2,3]]	[[2,2,2],[2,3]]	972	0.2532	0.8301	0.7247	3
7	I[[2,2,2],[2,3]]	[[2,2,2],[2,3]]	2916	0.2532	0.8301	0.7247	3
8	I[[2,2,2],[2,3]]	[[2,2,2],[2,3]]	2916	0.2532	0.8301	0.7247	3
9	I[[2,2,2],[2,3]]	[[2,2,2],[2,3]]	2916	0.2532	0.8301	0.7247	3
10	I[[2,2,2],[2,3]]	[[2,2,2],[2,3]]	2916	0.2532	0.8301	0.7247	3
11	I3223	[[2,2,2],[3,3]]	5832	0.4142	0.8284	0.7017	2
12	I3223	[[2,2,2],[3,3]]	5832	0.4142	0.8284	0.7017	2
13	I2233	[[3,3],[3,3]]	1296	0.3050	0.8139	0.6861	3
14	$I[[2,2,3],[3,3]]^1$	[[2,2,3],[3,3]]	23328	0.4142	0.8284	0.7071	2
15	$I[[2,2,3],[3,3]]^1$	[[2,2,3],[3,3]]	23328	0.4142	0.8284	0.7071	2
16	$I[[2,2,3],[3,3]]^1$	[[2,2,3],[3,3]]	23328	0.4142	0.8284	0.7071	2
17	$I[[2,2,3],[3,3]]^1$	[[2,2,3],[3,3]]	23328	0.4142	0.8284	0.7071	2
18	$I[[2,2,3],[3,3]]^2$	[[2,2,3],[3,3]]	23328	0.3038	0.8190	0.6976	3
19	$I[[2,2,3],[3,3]]^2$	[[2,2,3],[3,3]]	23328	0.3038	0.8190	0.6976	3
20	$I[[2,3,3],[3,3]]^1$	[[2,3,3],[3,3]]	11664	0.4142	0.8284	0.7071	2
21	$I[[2,3,3],[3,3]]^1$	[[2,3,3],[3,3]]	11664	0.4142	0.8284	0.7071	2
22	$I[[2,3,3],[3,3]]^1$	[[2,3,3],[3,3]]	11664	0.4142	0.8284	0.7071	2
23	$I[[2,3,3],[3,3]]^1$	[[2,3,3],[3,3]]	11664	0.4142	0.8284	0.7071	2
24	$I[[2,3,3],[3,3]]^1$	[[2,3,3],[3,3]]	11664	0.4142	0.8284	0.7071	2
25	$I[[2,3,3],[3,3]]^2$	[[2,3,3],[3,3]]	23328	0.4448	0.8151	0.7141	3
26	$I[[2,3,3],[3,3]]^2$	[[2,3,3],[3,3]]	23328	0.4448	0.8151	0.7141	3
27	$I[[2,3,3],[3,3]]^1$	[[2,3,3],[3,3]]	23328	0.4142	0.8283	0.7071	2
28	$I[[2,3,3],[3,3]]^1$	[[2,3,3],[3,3]]	23328	0.4142	0.8283	0.7071	2
29	$I[[2,3,3],[3,3]]^3$	[[2,3,3],[3,3]]	46656	0.4189	0.8419	0.7609	3
30	$I[[2,3,3],[3,3]]^3$	[[2,3,3],[3,3]]	46656	0.4189	0.8419	0.7609	3
31	$I[[2,3,3],[3,3]]^1$	[[2,3,3],[3,3]]	46656	0.4142	0.8284	0.7071	2
32	$I[[2,3,3],[3,3]]^1$	[[2,3,3],[3,3]]	46656	0.4142	0.8284	0.7071	2
33	$I3233^1$	[[3,3,3],[3,3]]	5184	0.3333	0.8571	0.7500	3
34	$I3233^2$	[[3,3,3],[3,3]]	46656	0.4448	0.8151	0.7141	3
35	$I3233^3$	[[3,3,3],[3,3]]	46656	0.4741	0.8361	0.7377	3
36	$I3233^4$	[[3,3,3],[3,3]]	46656	0.4221	0.8442	0.7595	3
37	$I3233^5$	[[3,3,3],[3,3]]	46656	0.4189	0.8507	0.7609	3

To the best knowledge of the author, this is the first time that this scenario has been solved in the literature.

1.13 (3,3,3,2)

In this scenario there are 25 classes for a total of 252 558 facets (54 are positivity facets). Of the non-trivial ones, only one is a non-lifted inequality. This results are corroborated by [1] where the authors had already given a full list of inequalities but without showing that it was complete.

Table 13: Non Trivial Classes of Facets for the (3,3,3,2) scenario

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
1	CHSH	[[2,2],[2,2]]	648	0.2071	0.8284	0.7071	2
2	I[[2,3],[2,2,2]]	[[2,3],[2,2,2]]	864	0.2532	0.8300	0.7247	3
3	I[[2,3],[2,2,2]]	[[2,3],[2,2,2]]	864	0.2532	0.8300	0.7247	3
4	I2332	[[3,3],[2,2,2]]	1296	0.4142	0.8284	0.7071	2
5	I3322	[[2,2,2],[2,2,2]]	3888	0.2509	0.8319	0.7994	2
6	I3322	[[2,2,2],[2,2,2]]	3888	0.2509	0.8319	0.7994	2
7	I3322	[[2,2,2],[2,2,2]]	7776	0.2509	0.8319	0.7994	2
8	$I[[2,2,3],[2,2,2]]^1$	[[2,2,3],[2,2,2]]	3888	0.4142	0.8284	0.7071	2
9	$I[[2,2,3],[2,2,2]]^1$	[[2,2,3],[2,2,2]]	3888	0.4142	0.8284	0.7071	2
10	$I[[2,2,3],[2,2,2]]^2$	[[2,2,3],[2,2,2]]	7776	1.3913	0.8255	0.7616	2
11	$I[[2,2,3],[2,2,2]]^2$	[[2,2,3],[2,2,2]]	7776	0.3913	0.8255	0.7616	2
12	$I[[2,2,3],[2,2,2]]^2$	[[2,2,3],[2,2,2]]	7776	1.3913	0.8255	0.7616	2
13	$I[[2,2,3],[2,2,2]]^2$	[[2,2,3],[2,2,2]]	7776	0.3913	0.8255	0.7616	2
14	$I[[2,2,3],[2,2,2]]^1$	[[2,2,3],[2,2,2]]	7776	0.4142	0.8284	0.7071	2
15	$I[[2,2,3],[2,2,2]]^3$	[[2,2,3],[2,2,2]]	15552	0.4365	0.8513	0.7746	2
16	$I[[2,3,3],[2,2,2]]^1$	[[2,3,3],[2,2,2]]	7776	0.3015	0.8483	0.7683	2
17	$I[[2,3,3],[2,2,2]]^1$	[[2,3,3],[2,2,2]]	7776	0.3015	0.8483	0.7683	2
18	$I[[2,3,3],[2,2,2]]^2$	[[2,3,3],[2,2,2]]	15552	1.4145	0.8325	0.7487	2
19	$I[[2,3,3],[2,2,2]]^2$	[[2,3,3],[2,2,2]]	15552	0.4145	0.8325	0.7487	2
20	$I[[2,3,3],[2,2,2]]^3$	[[2,3,3],[2,2,2]]	15552	0.4365	0.8513	0.7746	2
21	$I[[2,3,3],[2,2,2]]^3$	[[2,3,3],[2,2,2]]	15552	0.4365	0.8513	0.7746	2
22	$I[[2,3,3],[2,2,2]]^4$	[[2,3,3],[2,2,2]]	31104	0.3913	0.8255	0.7616	2
23	$I[[2,3,3],[2,2,2]]^4$	[[2,3,3],[2,2,2]]	31104	0.3913	0.8255	0.7616	2
24	I3332	[[3,3,3],[2,2,2]]	31104	0.4145	0.8325	0.7486	2

The completeness of this scenario had already been conjectured in [**?**] but as far as the author knows this is the first time that such completeness is proven.

1.14 (3,3,4,2)

In this scenario there are 159 classes for a total of 23 973 264 facets (72 are positivity facets). Of the non-trivial ones, all are lifted inequalities:

Table 14: Non Trivial Classes of Facets for the (3,3,4,2) scenario

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
1	CHSH	[[2, 2], [2, 2]]	648	0.2071	0.8284	0.7071	2
2	CHSH	[[2, 2], [2, 2]]	1152	0.2071	0.8284	0.7071	2
3	CHSH	[[2, 2], [2, 2]]	1728	0.2071	0.8284	0.7071	2
4	I3322	[[2, 2, 2], [2, 2, 2]]	6912	0.2509	0.8319	0.7994	2
5	I3322	[[2, 2, 2], [2, 2, 2]]	6912	0.2509	0.8319	0.7994	2
6	I3322	[[2, 2, 2], [2, 2, 2]]	9216	0.2509	0.8319	0.7994	2
7	I3322	[[2, 2, 2], [2, 2, 2]]	9216	0.2509	0.8319	0.7994	2
8	I3322	[[2, 2, 2], [2, 2, 2]]	13824	0.2509	0.8319	0.7994	2
9	I3322	[[2, 2, 2], [2, 2, 2]]	15552	0.2509	0.8319	0.7994	2
10	I3322	[[2, 2, 2], [2, 2, 2]]	18432	0.2509	0.8319	0.7994	2
11	I3322	[[2, 2, 2], [2, 2, 2]]	20736	0.2509	0.8319	0.7994	2
12	I3322	[[2, 2, 2], [2, 2, 2]]	20736	0.2509	0.8319	0.7994	2

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Table 14 – continued from previous page

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
13	I3322	[[2, 2, 2], [2, 2, 2]]	20736	0.2509	0.8319	0.7994	2
14	I3322	[[2, 2, 2], [2, 2, 2]]	27648	0.2509	0.8319	0.7994	2
15	I3322	[[2, 2, 2], [2, 2, 2]]	27648	0.2509	0.8319	0.8063	3
16	$I[[2,2,3],[2,2,2]]^1$	[[2, 2, 3], [2, 2, 2]]	13824	0.4142	0.8284	0.7071	2
17	$I[[2,2,3],[2,2,2]]^1$	[[2, 2, 3], [2, 2, 2]]	13824	0.4142	0.8284	0.7071	2
18	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	27648	1.3913	0.8255	0.7616	2
19	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	27648	0.3913	0.8255	0.7616	2
20	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	27648	1.3913	0.8255	0.7616	2
21	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	27648	0.3913	0.8255	0.7616	2
22	$I[[2,2,3],[2,2,2]]^1$	[[2, 2, 3], [2, 2, 2]]	27648	0.4142	0.8284	0.7071	2
23	$I[[2,2,3],[2,2,2]]^1$	[[2, 2, 3], [2, 2, 2]]	27648	0.4142	0.8284	0.7071	2
24	$I[[2,2,3],[2,2,2]]^1$	[[2, 2, 3], [2, 2, 2]]	27648	0.4142	0.8284	0.7071	2
25	$I[[2,2,3],[2,2,2]]^3$	[[2, 2, 3], [2, 2, 2]]	31104	0.4365	0.8514	0.7746	2
26	$I[[2,2,3],[2,2,2]]^1$	[[2, 2, 3], [2, 2, 2]]	31104	0.4142	0.8284	0.7071	2
27	$I[[2,2,3],[2,2,2]]^3$	[[2, 2, 3], [2, 2, 2]]	41472	0.4365	0.8514	0.7746	2
28	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	41472	1.3913	0.8255	0.7616	2
29	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	41472	0.3913	0.8255	0.7616	2
30	$I[[2,2,3],[2,2,2]]^3$	[[2, 2, 3], [2, 2, 2]]	41472	0.4365	0.8514	0.7746	2
31	$I[[2,2,3],[2,2,2]]^3$	[[2, 2, 3], [2, 2, 2]]	41472	0.4365	0.8514	0.7746	2
32	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	41472	1.3913	0.8255	0.7616	2
33	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	41472	1.3913	0.8255	0.7616	2
34	$I[[2,2,3],[2,2,2]]^1$	[[2, 2, 3], [2, 2, 2]]	41472	0.4142	0.8284	0.7071	2
35	$I[[2,2,3],[2,2,2]]^1$	[[2, 2, 3], [2, 2, 2]]	41472	0.4142	0.8284	0.7071	2
36	$I[[2,2,3],[2,2,2]]^3$	[[2, 2, 3], [2, 2, 2]]	41472	0.4365	0.8514	0.7746	2
37	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	55296	0.3913	0.8255	0.7616	2
38	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	55296	1.3913	0.8255	0.7616	2
39	$I[[2,2,3],[2,2,2]]^3$	[[2, 2, 3], [2, 2, 2]]	55296	0.4365	0.8514	0.7746	2
40	$I[[2,2,3],[2,2,2]]^3$	[[2, 2, 3], [2, 2, 2]]	55296	0.4365	0.8514	0.7746	2
41	$I[[2,2,3],[2,2,2]]^3$	[[2, 2, 3], [2, 2, 2]]	55296	0.4365	0.8514	0.7746	2
42	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	55296	0.3913	0.8255	0.7616	2
43	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	55296	1.3913	0.8255	0.7616	2
44	$I[[2,2,3],[2,2,2]]^1$	[[2, 2, 3], [2, 2, 2]]	55296	0.4142	0.8284	0.7071	2
45	$I[[2,2,3],[2,2,2]]^3$	[[2, 2, 3], [2, 2, 2]]	62208	0.4365	0.8514	0.7746	2
46	$I[[2,2,3],[2,2,2]]^1$	[[2, 2, 3], [2, 2, 2]]	62208	0.4142	0.8284	0.7071	2
47	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	62208	1.3913	0.8255	0.7616	2
48	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	82944	0.3913	0.8255	0.7616	2
49	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	82944	1.3913	0.8255	0.7616	2
50	$I[[2,2,3],[2,2,2]]^1$	[[2, 2, 3], [2, 2, 2]]	82944	0.4142	0.8284	0.7071	2
51	$I[[2,2,3],[2,2,2]]^1$	[[2, 2, 3], [2, 2, 2]]	82944	0.4142	0.8284	0.7071	2
52	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	82944	0.3913	0.8255	0.7616	2
53	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	82944	0.3913	0.8255	0.7616	2
54	$I[[2,2,3],[2,2,2]]^3$	[[2, 2, 3], [2, 2, 2]]	82944	0.4365	0.8514	0.7746	2
55	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	124416	0.3913	0.8255	0.7616	2
56	$I[[2,3],[2,2,2]]$	[[2, 3], [2, 2, 2]]	6912	0.2532	0.8301	0.7247	3
57	$I[[2,3],[2,2,2]]$	[[2, 3], [2, 2, 2]]	6912	0.2532	0.8301	0.7247	3
58	$I[[2,3],[2,2,2]]$	[[2, 3], [2, 2, 2]]	10368	0.2532	0.8301	0.7372	4
59	$I[[2,3,3],[2,2,2]]^1$	[[2, 3, 3], [2, 2, 2]]	41472	0.3015	0.8483	0.7683	2
60	$I[[2,3,3],[2,2,2]]^1$	[[2, 3, 3], [2, 2, 2]]	41472	0.3015	0.8483	0.7683	2
61	$I[[2,3,3],[2,2,2]]^1$	[[2, 3, 3], [2, 2, 2]]	62208	0.3015	0.8483	0.7683	2
62	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	82944	0.4145	0.8325	0.7402	2
63	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	82944	1.4145	0.8325	0.7402	2

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Table 14 – continued from previous page

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
64	$I[[2,3,3],[2,2,2]]^1$	[[2, 3, 3], [2, 2, 2]]	82944	0.3015	0.8483	0.7683	2
65	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	82944	0.3015	0.8483	0.7683	2
66	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	82944	0.4365	0.8514	0.7746	2
67	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	82944	0.4365	0.8514	0.7746	2
68	$I[[2,3,3],[2,2,2]]^1$	[[2, 3, 3], [2, 2, 2]]	82944	0.3015	0.8483	0.7683	2
69	$I[[2,3,3],[2,2,2]]^1$	[[2, 3, 3], [2, 2, 2]]	82944	0.3015	0.8483	0.7683	2
70	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	124416	0.4145	0.8325	0.7407	2
71	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	124416	0.4365	0.8514	0.7746	2
72	$I[[2,3,3],[2,2,2]]^1$	[[2, 3, 3], [2, 2, 2]]	124416	0.3015	0.8483	0.7683	2
73	$I[[2,3,3],[2,2,2]]^1$	[[2, 3, 3], [2, 2, 2]]	124416	0.3015	0.8483	0.7683	2
74	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	165888	1.4145	0.8325	0.7513	2
75	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	165888	1.4145	0.8325	0.7513	2
76	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	165888	1.4145	0.8325	0.7402	2
77	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	165888	0.4145	0.8325	0.7402	2
78	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	165888	0.4145	0.8325	0.7512	2
79	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	165888	0.4145	0.8325	0.7512	2
80	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	165888	1.4145	0.8325	0.7513	2
81	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	165888	0.4145	0.8325	0.7512	2
82	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	1.3913	0.8255	0.7616	2
83	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	0.3913	0.8255	0.7616	2
84	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	0.3913	0.8255	0.7616	2
85	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	1.3913	0.8255	0.7616	2
86	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	1.3913	0.8255	0.7616	2
87	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	0.3913	0.8255	0.7616	2
88	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	1.3913	0.8255	0.7616	2
89	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	0.3913	0.8255	0.7616	2
90	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	1.3913	0.8255	0.7616	2
91	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	0.3913	0.8255	0.7616	2
92	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	1.3913	0.8255	0.7616	2
93	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	0.3913	0.8255	0.7616	2
94	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	0.3913	0.8255	0.7616	2
95	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	1.3913	0.8255	0.7616	2
96	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	0.3913	0.8255	0.7616	2
97	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	0.3913	0.8255	0.7616	2
98	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	1.3913	0.8255	0.7616	2
99	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	165888	0.3913	0.8255	0.7616	2
100	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	165888	0.4365	0.8514	0.7746	2
101	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	165888	0.4365	0.8514	0.7746	2
102	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	165888	0.4365	0.8514	0.7746	2
103	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	165888	0.4365	0.8514	0.7746	2
104	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	165888	0.4365	0.8514	0.7746	2
105	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	165888	0.4365	0.8514	0.7746	2
106	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	165888	0.4365	0.8514	0.7746	2
107	$I[[2,3,3],[2,2,2]]^1$	[[2, 3, 3], [2, 2, 2]]	165888	0.3015	0.8483	0.7683	2
108	$I[[2,3,3],[2,2,2]]^1$	[[2, 3, 3], [2, 2, 2]]	165888	0.3015	0.8483	0.7683	2
109	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	165888	0.4365	0.8514	0.7746	2
110	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	248832	0.4365	0.8514	0.7746	2
111	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	248832	0.4365	0.8514	0.7746	2
112	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	248832	0.4365	0.8514	0.7746	2
113	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	248832	0.4145	0.8325	0.7511	2
114	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	248832	0.4145	0.8325	0.7511	2

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Table 14 – continued from previous page

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
115	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	248832	0.4145	0.8325	0.7407	2
116	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	248832	0.4145	0.8325	0.7511	2
117	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	248832	1.3913	0.8255	0.7616	2
118	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	248832	0.3913	0.8255	0.7616	2
119	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	248832	0.3913	0.8255	0.7616	2
120	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	248832	1.3913	0.8255	0.7616	2
121	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	248832	1.3913	0.8255	0.7616	2
122	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	248832	0.3913	0.8255	0.7616	2
123	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	248832	0.4365	0.8514	0.7746	2
124	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	248832	1.3913	0.8255	0.7616	2
125	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	248832	0.3913	0.8255	0.7616	2
126	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	248832	0.3913	0.8255	0.7616	2
127	$I[[2,3,3],[2,2,2]]^1$	[[2, 3, 3], [2, 2, 2]]	248832	0.3015	0.8483	0.7683	2
128	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 4], [2, 2, 2]]	124416	0.4365	0.8514	0.7746	2
129	$I[[2,3,4],[2,2,2]]^1$	[[2, 3, 4], [2, 2, 2]]	165888	1.4771	0.8170	0.7888	4
130	$I[[2,3,4],[2,2,2]]^1$	[[2, 3, 4], [2, 2, 2]]	165888	0.4771	0.8170	0.7774	3
131	$I[[2,3,4],[2,2,2]]^2$	[[2, 3, 4], [2, 2, 2]]	165888	1.3913	0.8255	0.7616	2
132	$I[[2,3,4],[2,2,2]]^2$	[[2, 3, 4], [2, 2, 2]]	165888	1.3913	0.8255	0.7616	2
133	$I[[2,3,4],[2,2,2]]^3$	[[2, 3, 4], [2, 2, 2]]	165888	0.4365	0.8514	0.7746	2
134	$I[[2,3,4],[2,2,2]]^4$	[[2, 3, 4], [2, 2, 2]]	248832	1.4771	0.8170	0.7891	4
135	$I[[2,3,4],[2,2,2]]^3$	[[2, 3, 4], [2, 2, 2]]	248832	0.4365	0.8514	0.7746	2
136	$I[[2,3,4],[2,2,2]]^2$	[[2, 3, 4], [2, 2, 2]]	248832	1.3913	0.8255	0.7616	2
137	$I[[2,3,4],[2,2,2]]^2$	[[2, 3, 4], [2, 2, 2]]	331776	0.3913	0.8255	0.7616	2
138	$I[[2,3,4],[2,2,2]]^2$	[[2, 3, 4], [2, 2, 2]]	331776	0.3913	0.8255	0.7616	2
139	$I[[2,3,4],[2,2,2]]^3$	[[2, 3, 4], [2, 2, 2]]	331776	0.4365	0.8514	0.7746	2
140	$I[[2,3,4],[2,2,2]]^2$	[[2, 3, 4], [2, 2, 2]]	497664	0.3913	0.8255	0.7616	2
141	I2332	[[3, 3], [2, 2, 2]]	5184	0.4142	0.8284	0.7071	2
142	I2332	[[3, 3], [2, 2, 2]]	20736	0.4142	0.8284	0.7071	2
143	I2332	[[3, 3], [2, 2, 2]]	20736	0.4142	0.8284	0.7071	2
144	I3332	[[3, 3, 3], [2, 2, 2]]	248832	1.4145	0.8326	0.7408	2
145	I3332	[[3, 3, 3], [2, 2, 2]]	248832	0.4145	0.8325	0.7408	2
146	I3332	[[3, 3, 3], [2, 2, 2]]	248832	0.4145	0.8325	0.7397	2
147	I3332	[[3, 3, 3], [2, 2, 2]]	497664	1.4145	0.8325	0.7512	2
148	I3332	[[3, 3, 3], [2, 2, 2]]	497664	1.4145	0.8325	0.7512	2
149	I3332	[[3, 3, 3], [2, 2, 2]]	497664	1.4145	0.8325	0.7407	2
150	I3332	[[3, 3, 3], [2, 2, 2]]	497664	1.4145	0.8325	0.7513	2
151	I3332	[[3, 3, 3], [2, 2, 2]]	497664	0.4145	0.8325	0.7407	2
152	I3332	[[3, 3, 3], [2, 2, 2]]	497664	0.4145	0.8325	0.7512	2
153	I3332	[[3, 3, 3], [2, 2, 2]]	497664	0.4145	0.8325	0.7512	2
154	I3332	[[3, 3, 3], [2, 2, 2]]	497664	0.4145	0.8325	0.7512	2
155	I3332	[[3, 3, 3], [2, 2, 2]]	497664	0.4145	0.8325	0.7512	2
156	I3332	[[3, 3, 3], [2, 2, 2]]	497664	0.4145	0.8325	0.7408	2
157	I3332	[[3, 3, 3], [2, 2, 2]]	497664	0.4145	0.8325	0.7512	2
158	I3332	[[3, 3, 3], [2, 2, 2]]	497664	0.4145	0.8325	0.7508	2

Although we could not prove the scenario to be complete, we strongly suspect that there are no more classes of inequalities present in this scenario. This belief stems from the fact that no new classes arose after a long period of cutting the polytope and computing the resulting classes.

1.15 (4,3,3,2)

In this scenario there are 80 classes for a total of 9 960 696 facets (72 are positivity facets). Of the non-trivial ones, only one is non-lifted:

Table 15: Non Trivial Classes of Facets for the (3,3,4,2) scenario

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
1	CHSH	[[2, 2], [2, 2]]	1296	0.2071	0.8284	0.7071	2
2	I3322	[[2, 2, 2], [2, 2, 2]]	15552	0.2509	0.8319	0.7994	2
3	I3322	[[2, 2, 2], [2, 2, 2]]	15552	0.2509	0.8319	0.7994	2
4	I3322	[[2, 2, 2], [2, 2, 2]]	31104	0.2509	0.8319	0.7994	2
5	I3322	[[2, 2, 2, 2], [2, 2, 2]]	11664	1.4142	0.8284	0.7071	2
6	$I4322^1$	[[2, 2, 2, 2], [2, 2, 2]]	11664	0.4142	0.8284	0.7071	2
7	$I4322^1$	[[2, 2, 2, 2], [2, 2, 2]]	23328	1.4142	0.8284	0.7071	2
8	$I4322^2$	[[2, 2, 2, 2], [2, 2, 2]]	31104	0.299	0.8699	0.7698	2
9	$I4322^2$	[[2, 2, 2, 2], [2, 2, 2]]	31104	1.299	0.8699	0.7698	2
10	$I4322^1$	[[2, 2, 2, 2], [2, 2, 2]]	46656	0.4142	0.8284	0.7071	2
11	$I4322^1$	[[2, 2, 2, 2], [2, 2, 2]]	46656	1.4142	0.8284	0.7071	2
12	$I4322^1$	[[2, 2, 2, 2], [2, 2, 2]]	46656	1.4142	0.8284	0.7071	2
13	$I4322^3$	[[2, 2, 2, 2], [2, 2, 2]]	93312	1.4365	0.8514	0.7746	2
14	$I4322^3$	[[2, 2, 2, 2], [2, 2, 2]]	93312	1.4365	0.8514	0.7746	2
15	$I4322^3$	[[2, 2, 2, 2], [2, 2, 2]]	93312	1.4365	0.8514	0.7746	2
16	$I4322^3$	[[2, 2, 2, 2], [2, 2, 2]]	93312	1.4365	0.8514	0.7746	2
17	$I4322^2$	[[2, 2, 2, 2], [2, 2, 2]]	93312	0.299	0.8699	0.7825	3
18	$I4322^2$	[[2, 2, 2, 2], [2, 2, 2]]	93312	1.299	0.8699	0.7698	2
19	$I[[2,2,2,3],[2,2,2]]^1$	[[2, 2, 2, 3], [2, 2, 2]]	31104	0.4843	0.8377	0.7458	3
20	$I[[2,2,2,3],[2,2,2]]^2$	[[2, 2, 2, 3], [2, 2, 2]]	93312	1.4441	0.8417	0.7976	2
21	$I[[2,2,2,3],[2,2,2]]^2$	[[2, 2, 2, 3], [2, 2, 2]]	93312	0.4441	0.8417	0.7976	2
22	$I[[2,2,2,3],[2,2,2]]^2$	[[2, 2, 2, 3], [2, 2, 2]]	93312	1.4441	0.8417	0.7976	2
23	$I[[2,2,2,3],[2,2,2]]^2$	[[2, 2, 2, 3], [2, 2, 2]]	93312	0.4441	0.8417	0.7976	2
24	$I[[2,2,2,3],[2,2,2]]^3$	[[2, 2, 2, 3], [2, 2, 2]]	93312	0.3944	0.8259	0.7601	2
25	$I[[2,2,2,3],[2,2,2]]^3$	[[2, 2, 2, 3], [2, 2, 2]]	93312	0.3944	0.8259	0.7601	2
26	$I[[2,2,2,3],[2,2,2]]^3$	[[2, 2, 2, 3], [2, 2, 2]]	93312	0.3944	0.8259	0.7601	2
27	$I[[2,2,2,3],[2,2,2]]^3$	[[2, 2, 2, 3], [2, 2, 2]]	93312	0.3944	0.8259	0.7601	2
28	$I[[2,2,2,3],[2,2,2]]^4$	[[2, 2, 2, 3], [2, 2, 2]]	93312	1.4365	0.8514	0.7746	2
29	$I[[2,2,2,3],[2,2,2]]^4$	[[2, 2, 2, 3], [2, 2, 2]]	93312	1.4365	0.8514	0.7746	2
30	$I[[2,2,2,3],[2,2,2]]^4$	[[2, 2, 2, 3], [2, 2, 2]]	93312	1.4365	0.8514	0.7746	2
31	$I[[2,2,2,3],[2,2,2]]^4$	[[2, 2, 2, 3], [2, 2, 2]]	93312	1.4365	0.8514	0.7746	2
32	$I[[2,2,2,3],[2,2,2]]^1$	[[2, 2, 2, 3], [2, 2, 2]]	93312	0.4843	0.8377	0.7457	3
33	$I[[2,2,2,3],[2,2,2]]^2$	[[2, 2, 2, 3], [2, 2, 2]]	186624	1.4441	0.8417	0.7976	2
34	$I[[2,2,2,3],[2,2,2]]^2$	[[2, 2, 2, 3], [2, 2, 2]]	186624	0.4441	0.8417	0.7976	2
35	$I[[2,2,2,3],[2,2,2]]^2$	[[2, 2, 2, 3], [2, 2, 2]]	186624	1.4365	0.8514	0.7746	2
36	$I[[2,2,2,3],[2,2,2]]^2$	[[2, 2, 2, 3], [2, 2, 2]]	186624	1.4365	0.8514	0.7746	2
37	$I[[2,2,2,3],[2,2,2]]^3$	[[2, 2, 2, 3], [2, 2, 2]]	186624	0.3944	0.8259	0.7601	2
38	$I[[2,2,2,3],[2,2,2]]^3$	[[2, 2, 2, 3], [2, 2, 2]]	186624	0.3944	0.8259	0.7601	2
39	$I[[2,2,3],[2,2,2]]^1$	[[2, 2, 3], [2, 2, 2]]	15552	0.4142	0.8284	0.7071	2
40	$I[[2,2,3],[2,2,2]]^1$	[[2, 2, 3], [2, 2, 2]]	15552	0.4142	0.8284	0.7071	2
41	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	31104	1.3913	0.8255	0.7616	2
42	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	31104	0.3913	0.8255	0.7616	2
43	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	31104	1.3913	0.8255	0.7616	2
44	$I[[2,2,3],[2,2,2]]^2$	[[2, 2, 3], [2, 2, 2]]	31104	0.3913	0.8255	0.7616	2
45	$I[[2,2,3],[2,2,2]]^1$	[[2, 2, 3], [2, 2, 2]]	31104	0.4142	0.8284	0.7071	2

Continued on next page

Table 15 – continued from previous page

Nº	Name	Pre-lifting Scenario	Nº Relabelings	Q	η	λ	d_{min}
46	$I[[2,2,3],[2,2,2]]^3$	[[2, 2, 3], [2, 2, 2]]	62208	0.4365	0.8514	0.7746	2
47	$I[[2,2,3,3],[2,2,2]]^1$	[[2, 2, 3, 3], [2, 2, 2]]	93312	1.3844	0.8482	0.7960	2
48	$I[[2,2,3,3],[2,2,2]]^1$	[[2, 2, 3, 3], [2, 2, 2]]	93312	0.3844	0.8482	0.7960	2
49	$I[[2,2,3,3],[2,2,2]]^2$	[[2, 2, 3, 3], [2, 2, 2]]	186624	1.4866	0.8189	0.7740	3
50	$I[[2,2,3,3],[2,2,2]]^2$	[[2, 2, 3, 3], [2, 2, 2]]	186624	0.4866	0.8189	0.7740	3
51	$I[[2,2,3,3],[2,2,2]]^2$	[[2, 2, 3, 3], [2, 2, 2]]	186624	0.4866	0.8189	0.7740	3
52	$I[[2,2,3,3],[2,2,2]]^2$	[[2, 2, 3, 3], [2, 2, 2]]	186624	1.4866	0.8189	0.7740	3
53	$I[[2,2,3,3],[2,2,2]]^3$	[[2, 2, 3, 3], [2, 2, 2]]	186624	0.4794	0.8622	0.7578	2
54	$I[[2,2,3,3],[2,2,2]]^3$	[[2, 2, 3, 3], [2, 2, 2]]	186624	0.4794	0.8622	0.7578	2
55	$I[[2,2,3,3],[2,2,2]]^4$	[[2, 2, 3, 3], [2, 2, 2]]	186624	0.4146	0.8340	0.7485	2
56	$I[[2,2,3,3],[2,2,2]]^4$	[[2, 2, 3, 3], [2, 2, 2]]	186624	0.4146	0.8340	0.7485	2
57	$I[[2,2,3,3],[2,2,2]]^5$	[[2, 2, 3, 3], [2, 2, 2]]	186624	0.4441	0.8298	0.7976	2
58	$I[[2,2,3,3],[2,2,2]]^5$	[[2, 2, 3, 3], [2, 2, 2]]	186624	0.4441	0.8298	0.7976	2
59	$I[[2,2,3,3],[2,2,2]]^1$	[[2, 2, 3, 3], [2, 2, 2]]	186624	1.3844	0.8482	0.7960	2
60	$I[[2,2,3,3],[2,2,2]]^4$	[[2, 2, 3, 3], [2, 2, 2]]	186624	0.4146	0.8340	0.7485	2
61	$I[[2,2,3,3],[2,2,2]]^4$	[[2, 2, 3, 3], [2, 2, 2]]	186624	0.4146	0.8340	0.7485	2
62	$I[[2,2,3,3],[2,2,2]]^4$	[[2, 2, 3, 3], [2, 2, 2]]	373248	0.4441	0.8298	0.7976	2
63	$I[[2,3],[2,2,2]]^1$	[[2, 3], [2, 2, 2]]	1728	0.2532	0.8301	0.7247	3
64	$I[[2,3],[2,2,2]]^1$	[[2, 3], [2, 2, 2]]	1728	0.2532	0.8301	0.7247	3
65	$I[[2,3,3],[2,2,2]]^1$	[[2, 3, 3], [2, 2, 2]]	31104	0.3015	0.8483	0.7683	2
66	$I[[2,3,3],[2,2,2]]^1$	[[2, 3, 3], [2, 2, 2]]	31104	0.3015	0.8483	0.7683	2
67	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	62208	1.4145	0.8325	0.7753	3
68	$I[[2,3,3],[2,2,2]]^2$	[[2, 3, 3], [2, 2, 2]]	62208	0.4145	0.8325	0.7487	2
69	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	62208	0.4365	0.8514	0.7746	2
70	$I[[2,3,3],[2,2,2]]^3$	[[2, 3, 3], [2, 2, 2]]	62208	0.4365	0.8514	0.7746	2
71	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	124416	0.3913	0.8255	0.7616	2
72	$I[[2,3,3],[2,2,2]]^4$	[[2, 3, 3], [2, 2, 2]]	124416	0.3913	0.8255	0.7616	2
73	$I[[2,3,3,3],[2,2,2]]^1$	[[2, 3, 3, 3], [2, 2, 2]]	373248	0.4946	0.8585	0.7796	2
74	$I[[2,3,3,3],[2,2,2]]^1$	[[2, 3, 3, 3], [2, 2, 2]]	746496	1.4946	0.8585	0.7796	2
75	$I[[2,3,3,3],[2,2,2]]^1$	[[2, 3, 3, 3], [2, 2, 2]]	746496	1.4946	0.8585	0.7796	2
76	$I[[2,3,3,3],[2,2,2]]^2$	[[2, 3, 3, 3], [2, 2, 2]]	746496	0.4794	0.8622	0.7578	2
77	I2332	[[3, 3], [2, 2, 2]]	2592	0.4142	0.8284	0.7071	2
78	I3332	[[3, 3, 3], [2, 2, 2]]	124416	0.4145	0.8325	0.7485	2
79	I4332	[[3, 3, 3, 3], [2, 2, 2]]	186624	0.4142	0.8284	0.7695	3

Although we could not prove the scenario to be complete, we strongly suspect that there are no more classes of inequalities present in this scenario. This belief stems from the fact that no new classes arose after a long period of cutting the polytope and computing the resulting classes.

2 Facet Representatives

In this annex we present the representatives of each class found in all the scenarios analysed.

In this annex we present the representatives of each class found in all the scenarios analysed.

2.1 (2,2,2,2)

Table 16: Representative Facets of the (2,2,2,2) scenario.

Nº	Name	Representative Facet
1	$CHSH$	[1, 1, 1, -1, -1, 0, -1, 0, 0]

2.2 (3,3,2,2)

Table 17: Representative Facets of the (3,3,2,2) scenario.

Nº	Name	Representative Facet
1	$CHSH$	[1, 1, 0, 1, -1, 0, 0, 0, 0, -1, 0, 0, -1, 0, 0, 0]
2	$I3322$	[1, 1, 1, 1, 1, -1, 1, -1, 0, -1, 0, 0, -2, -1, 0, 0]

2.3 (4,3,2,2)

Table 18: Representative Facets of the (4,3,2,2) scenario.

Nº	Name	Representative Facet
1	$CHSH$	[1, 1, 0, 1, -1, 0, 0, 0, 0, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0]
2	$I3322$	[1, 1, 1, 1, 1, -1, 1, -1, 0, 0, 0, 0, -1, 0, 0, 0, -2, -1, 0, 0]
3	$I4322^1$	[1, 1, 1, 1, 1, -1, 1, -1, 1, 1, -1, -1, -1, 0, 0, 1, -3, 0, 0, 1]
4	$I4322^2$	[1, 1, 1, 1, 0, -1, 1, -1, 0, 0, 1, -1, -1, 0, 0, 0, -2, -1, 0, 0]
5	$I4322^3$	[2, 1, 1, 1, -1, -1, 1, -1, -1, 0, 1, -1, -2, 1, 0, 0, -2, 0, 1, 1]

2.4 (5,3,2,2)

Table 19: Representative Facets of the (5,3,2,2) scenario.

Nº	Name	Representative Facet
1	$CHSH$	[1, 1, 0, 1, -1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, -1, 0, 0, 0, 0, -1, 0, 0, 0]
2	$I3322$	[1, 1, 1, 1, 1, -1, 1, -1, 0, 0, 0, 0, 0, 0, 0, -1, 0, 0, 0, 0, -2, -1, 0, 0]
3	$I4322^1$	[1, 1, 1, 1, 1, -1, 1, -1, 1, 1, -1, -1, 0, 0, 0, -1, 0, 0, 1, 0, -3, 0, 0, 1]
4	$I4322^2$	[1, 1, 1, 1, 0, -1, 1, -1, 0, 0, 1, -1, 0, 0, 0, -1, 0, 0, 0, 0, -2, -1, 0, 0]
5	$I4322^3$	[2, 1, 1, 1, -1, -1, 1, -1, -1, 0, 1, -1, 0, 0, 0, -2, 1, 0, 0, 0, -2, 0, 1, 1]
6	$I5322$	[1, 1, 1, 1, 1, 1, 1, 0, -1, 1, -1, 0, 0, 1, -1, -1, -2, 0, 0, 0, -2, -1, 0, 0]

2.5 (6,3,2,2)

Table 20: Representative Facets of the (6,3,2,2) scenario.

Nº	Name	Representative Facet
1	$CHSH$	[1, 1, 0, 1, -1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, -1, 0, 0, 0, 0, 0, -1, 0, 0, 0]
2	$I3322$	[1, 1, 1, 1, 1, -1, 1, -1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, -1, 0, 0, 0, 0, 0, -2, -1, 0, 0]
3	$I4322^2$	[1, 1, 1, 1, 1, -1, 1, -1, 1, 1, -1, -1, 0, 0, 0, 0, 0, 0, -1, 0, 0, 1, 0, 0, -3, 0, 0, 1]
4	$I4322^2$	[1, 1, 1, 1, 0, -1, 1, -1, 0, 0, 1, -1, 0, 0, 0, 0, 0, 0, -1, 0, 0, 0, 0, 0, -2, -1, 0, 0]
5	$I4322^3$	[2, 1, 1, 1, -1, -1, 1, -1, -1, 0, 1, -1, 0, 0, 0, 0, 0, 0, -2, 1, 0, 0, 0, 0, -2, 0, 1, 1]
6	$I5322$	[1, 1, 1, 1, 1, 1, 1, 0, -1, 1, -1, 0, 0, 1, -1, 0, 0, 0, -1, -2, 0, 0, 0, 0, -2, -1, 0, 0]

2.6 (4,4,2,2)

Table 21: Representative Facets of the (4,4,2,2) scenario.

Nº	Name	Representative Facet
1	$CHSH$	[1, 1, 0, 0, 1, -1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, -1, 0, 0, 0, -1, 0, 0, 0, 0]
2	$I3322$	[1, 1, 1, 0, 1, 1, -1, 0, 1, -1, 0, 0, 0, 0, 0, 0, -1, 0, 0, 0, -2, -1, 0, 0, 0]
3	$I4322^1$	[1, 1, 1, 1, 1, 1, -1, -1, 1, -1, 1, -1, 0, 0, 0, 0, -1, 0, 0, 0, -2, -1, -1, 0, 0]
4	$I4322^2$	[1, 1, 1, 0, 1, 0, -1, 1, 1, -1, 0, -1, 0, 0, 0, 0, -1, 0, 1, 0, -2, 0, 0, 0, 1]
5	$I4322^3$	[2, 1, 1, 0, 1, -1, -1, 1, 1, -1, -1, -1, 0, 0, 0, 0, -2, 0, 1, 0, -2, 1, 0, 0, 1]
6	F_1	[2, 2, 1, 1, 2, -1, -1, -2, 1, -1, -2, 2, 1, -2, 2, 1, -3, 1, 0, -1, -3, 1, 0, -1, 1]
7	F_2	[2, 1, 1, 0, 1, -1, -1, 1, 1, -1, -1, -1, 0, 1, -1, 0, -2, 0, 1, 0, -2, 0, 1, 0, 1]
8	F_3	[1, 1, 1, 1, 1, 1, 1, 1, 1, 1, -1, -1, 1, -1, 1, -1, -1, -3, 0, 0, -2, -1, -1, 0, 0]
9	F_4	[1, 1, 1, 1, 1, 1, -1, -1, 1, -1, 1, -1, 1, -1, -1, 1, -1, 1, 0, 0, -3, -1, 0, 0, 1]
10	F_5	[3, 2, 2, 0, 2, -1, -1, 1, 2, -1, -1, -1, 0, 1, -1, 0, -3, -1, 0, 0, -3, -1, 0, 0, 0]
11	F_6	[1, 1, 1, 1, 1, 1, 1, -1, 1, 1, -1, 0, 1, -1, 0, 0, -1, 0, 0, 0, -3, -2, -1, 0, 0]
12	F_7	[1, 1, 1, 1, 1, 1, 1, -1, -1, 1, -1, 0, 0, 0, 0, 1, -1, -1, 0, 0, 0, -2, -1, -1, 0, 0]
13	F_8	[3, 3, 3, 3, 3, 2, -1, -2, 3, -1, -2, 2, 3, -2, 2, -1, -3, 0, 0, 0, -9, -2, -2, -2, 0]
14	F_9	[1, 1, 1, 1, 1, 1, 0, -1, 1, 0, -1, 1, 1, -1, 1, 0, -1, 0, 0, 0, -3, -1, -1, -1, 0]
15	F_{10}	[4, 2, 1, 1, 2, 0, -2, -2, 1, -2, 1, -1, 1, -2, -1, 1, -4, 2, 0, 0, -4, 0, 1, 1, 2]
16	F_{11}	[3, 2, 1, 1, 2, -2, -2, -2, 1, -2, 3, -1, 1, -2, -1, 2, -3, 2, 0, 0, -4, 2, -1, 0, 2]
17	F_{12}	[3, 1, 1, 1, 1, 1, -1, -1, 1, -1, 0, -1, 1, -1, -1, 0, -3, 0, 1, 0, -3, 0, 0, 1, 1]
18	F_{13}	[2, 2, 2, 2, 2, 2, -1, -1, 2, -1, 1, -1, 2, -1, -1, 1, -2, 0, 0, 0, -6, -2, -1, -1, 0]
19	F_{14}	[2, 2, 1, 1, 2, -1, -1, -1, 1, -2, 1, 1, 0, 0, 1, -1, -3, 1, 0, 0, -3, 1, -1, 0, 1]
20	F_{15}	[2, 2, 0, 0, 1, -1, 1, 1, 1, -1, 1, -1, 1, -1, -1, 0, -2, -1, 0, 1, -3, 1, 0, 0, 1]
21	F_{16}	[2, 1, 1, 0, 1, 0, -1, 1, 1, -1, 0, -1, 0, 1, -1, -1, -2, 0, 0, 1, -2, -1, 1, 0, 1]
22	F_{17}	[1, 1, 1, 1, 1, 1, 1, -1, 1, 0, -1, 0, 1, -1, 0, 0, -2, -1, 0, 0, -2, 0, -1, 0, 0]
23	F_{18}	[3, 3, 3, 2, 3, 1, -2, -1, 2, -3, -1, 1, 1, -2, 3, -1, -3, 0, 0, 0, -6, -1, -3, -1, 0]
24	F_{19}	[2, 2, 2, 2, 2, 0, -1, -1, 1, -2, 1, 0, 0, 1, 1, -2, -3, 0, 0, 0, -3, -1, -2, 0, 0]
25	F_{20}	[6, 4, 2, 2, 4, -3, -3, -5, 2, -3, -4, 4, 2, -5, 4, 1, -6, 3, 1, 0, -8, 4, 0, -2, 4]
26	F_{21}	[5, 3, 2, 1, 3, 0, -3, -3, 2, -3, -1, 2, 1, -3, 2, -2, -5, 0, 1, 2, -6, 3, -1, 0, 3]
27	F_{22}	[4, 4, 3, 3, 3, -1, -1, -2, 1, -1, -2, 2, 1, -3, 2, 1, -5, 0, 0, 0, -5, 0, -2, -3, 0]
28	F_{23}	[4, 4, 3, 2, 4, -1, -1, -4, 3, -1, -2, 3, 2, -4, 3, 1, -6, 1, -3, 0, -6, 1, -3, 0, 1]
29	F_{24}	[4, 4, 3, 1, 4, -2, -2, -2, 3, -2, -1, 3, 1, -2, 3, -1, -5, 0, -3, 0, -5, 0, -3, 0, 0]
30	F_{25}	[4, 4, 2, 1, 4, -2, -3, -1, 2, -3, 1, 2, 1, -1, 2, -1, -5, 0, -2, 0, -5, 0, -2, 0, 0]
31	F_{26}	[4, 4, 1, 1, 3, -2, -1, -2, 2, -3, 2, 1, 1, -1, -1, 1, -5, 2, 0, 0, -6, 2, -1, 0, 2]
32	F_{27}	[4, 3, 3, 1, 3, -1, -1, -3, 3, -1, -2, 2, 1, -3, 2, 1, -5, 1, -2, 0, -5, 1, -2, 0, 1]
33	F_{28}	[4, 3, 2, 2, 3, -2, -1, -3, 1, -2, -3, 2, 1, -4, 3, 1, -5, 1, 2, 0, -5, 3, 0, -2, 3]
34	F_{29}	[4, 3, 2, 2, 3, -2, -2, -3, 1, -2, -3, 3, 1, -4, 3, 1, -5, 2, 1, 0, -5, 3, 0, -2, 3]

Continued on next page

Table 21 – continued from previous page

Nº	Name	Representative Facet
35	F_{30}	[4, 3, 1, 1, 3, -2, -1, -2, 1, -1, -1, 1, 1, -2, 1, 1, -4, 0, 0, -1, -4, 0, 0, -1, 0]
36	F_{31}	[4, 2, 2, 2, 2, 2, 1, -3, 2, -1, -3, -1, 2, -4, 2, -1, -4, 0, 1, 1, -6, 0, -2, 2, 2]
37	F_{32}	[4, 2, 2, 1, 2, 0, -2, -2, 2, -2, -3, 1, 1, -2, 1, 1, -4, 0, 0, -1, -4, 0, 0, -1, 0]
38	F_{33}	[4, 2, 1, 1, 2, -1, -1, -1, 1, -2, 1, -1, 1, -2, -1, 1, -4, 1, 0, 0, -4, 1, 0, 0, 1]
39	F_{34}	[4, 2, 1, 1, 2, -1, -2, -2, 1, -2, 2, -1, 1, -2, -1, 1, -4, 2, 0, 0, -4, 1, 0, 1, 2]
40	F_{35}	[3, 3, 3, 3, 3, -1, -1, -2, 1, 1, -3, 2, 1, -3, 1, 2, -5, 1, 0, 0, -5, 0, 0, -3, 1]
41	F_{36}	[3, 3, 3, 2, 3, 1, -1, -2, 3, -1, -2, 2, 2, -2, 2, 0, -3, 0, 0, 0, -8, -1, -2, -2, 0]
42	F_{37}	[3, 3, 2, 2, 3, -2, 1, 1, 2, 1, 1, -3, 2, 1, -3, 0, -4, -1, 0, 0, -6, -2, -1, 0, 0]
43	F_{38}	[3, 3, 2, 2, 2, -1, 1, -2, 2, -1, -2, 1, 1, -2, 1, 1, -3, 0, 0, 0, -5, 0, -2, -2, 0]
44	F_{39}	[3, 3, 2, 2, 2, -1, -1, -2, 1, -1, -2, 2, 1, -2, 2, 1, -3, 0, 0, 0, -4, 0, -2, -3, 0]
45	F_{40}	[3, 3, 2, 1, 3, -1, -1, -2, 2, -1, -1, 2, 1, -2, 2, 0, -4, 0, -2, 0, -4, 0, -2, 0, 0]
46	F_{41}	[3, 3, 2, 1, 3, -1, -2, -1, 2, -2, 1, 2, 1, -1, 2, -2, -4, 0, -2, 0, -4, 0, -2, 0, 0]
47	F_{42}	[3, 3, 2, 1, 3, -1, -2, -1, 2, -2, 0, 2, 1, -1, 2, -1, -4, 0, -2, 0, -4, 0, -2, 0, 0]
48	F_{43}	[3, 3, 2, 1, 3, -1, -2, -3, 2, -2, -2, 3, 1, -3, 3, 0, -3, 2, 0, 0, -6, 1, -1, -1, 2]
49	F_{44}	[3, 3, 2, 1, 3, -1, -3, -1, 2, -3, 2, 2, 1, -1, 2, -3, -4, 0, -2, 0, -4, 0, -2, 0, 0]
50	F_{45}	[3, 3, 2, 0, 2, -1, -1, 1, 2, -1, -1, -1, 1, -2, 2, 0, -3, -1, 0, 0, -4, 0, -2, 0, 0]
51	F_{46}	[3, 3, 1, 0, 2, -1, -1, 1, 2, -1, -1, -1, 2, -2, 2, 0, -3, 0, 1, 0, -6, 1, -1, 0, 1]
52	F_{47}	[3, 2, 2, 1, 2, -1, -1, -1, 1, -1, -1, 1, 0, 1, -1, 0, -3, 0, 0, 0, -3, -1, 0, -1, 0]
53	F_{48}	[3, 2, 2, 1, 2, -1, -2, -2, 1, -2, -1, 1, 0, 2, -3, 1, -4, 2, 0, 0, -3, -1, 2, 0, 2]
54	F_{49}	[3, 2, 2, 1, 2, -1, -3, -1, 1, -1, 2, -2, 1, -2, 1, 1, -3, 1, 0, 0, -4, 1, -2, 0, 1]
55	F_{50}	[3, 2, 1, 1, 2, 0, -2, -2, 1, -2, 2, -1, 1, -2, -1, 1, -3, 0, 1, 1, -4, 2, -1, 0, 2]
56	F_{51}	[3, 2, 1, 1, 2, -1, -1, -1, 1, -1, 1, 0, 1, -1, -1, 1, -3, 0, -1, 0, -3, 0, 0, -1, 0]
57	F_{52}	[3, 2, 1, 1, 2, -1, -1, -2, 1, -1, -2, 1, 1, -2, 1, 1, -3, 0, 0, -1, -3, 0, 0, -1, 0]
58	F_{53}	[3, 2, 1, 1, 2, -1, -2, -2, 1, -2, 3, -1, 1, -2, -1, 1, -3, 2, 0, 0, -4, 1, -1, 1, 2]
59	F_{54}	[3, 2, 1, 1, 2, -1, -2, -2, 1, -2, 2, 0, 1, -2, -2, 2, -3, 1, 0, 1, -4, 2, 0, -1, 2]
60	F_{55}	[3, 2, 1, 1, 2, -1, -2, -2, 1, -2, 2, -1, 1, -2, -1, 2, -3, 1, 1, 0, -4, 2, -1, 0, 2]
61	F_{56}	[2, 2, 2, 2, 2, 2, -1, -1, 2, -2, 1, -1, 1, -1, -1, 1, -2, 0, 0, 0, -5, -2, -1, -1, 0]
62	F_{57}	[2, 2, 2, 2, 2, 2, -1, -2, 2, -1, -2, 2, 2, -2, 1, -1, -2, 0, 0, 1, -6, -1, -1, -1, 1]
63	F_{58}	[2, 2, 2, 2, 2, 0, -1, -1, 1, -2, 1, 1, 0, 0, 1, -1, -3, 0, 0, 0, -3, 0, -2, -1, 0]
64	F_{59}	[2, 2, 2, 1, 2, 1, -1, -1, 2, -2, 1, 0, 1, 0, -1, 1, -2, 0, 0, 0, -5, -1, -1, -1, 0]
65	F_{60}	[2, 2, 2, 1, 2, 1, -1, -1, 2, -2, 0, 1, 1, -2, 2, -2, -3, 0, 0, 2, -5, 1, -2, 1, 2]
66	F_{61}	[2, 2, 2, 1, 2, -1, -1, -1, 1, 1, -2, 1, 1, -2, 1, 1, -3, 1, 0, 0, -4, 0, 0, -1, 1]
67	F_{62}	[2, 2, 2, 1, 2, -1, -1, -1, 1, -1, -1, 2, 0, 1, -1, 0, -3, 0, -1, 0, -2, -1, 0, -1, 0]
68	F_{63}	[2, 2, 2, 0, 2, -1, -1, 1, 0, 1, -1, 1, 0, 1, -1, -1, -2, -1, 0, 0, -2, -2, 0, -1, 0]
69	F_{64}	[2, 2, 1, 1, 2, -1, 1, -2, 1, -1, 1, 1, 1, -1, -1, 1, -3, 0, -1, 1, -4, 1, 0, -1, 1]
70	F_{65}	[2, 2, 1, 1, 2, -1, 0, -2, 1, 0, -1, 1, 1, -2, 1, 1, -3, 1, -1, 0, -3, 1, -1, 0, 1]
71	F_{66}	[2, 2, 1, 1, 2, -1, 0, -2, 1, -1, -1, 2, 0, 1, -2, -1, -2, 0, 0, 1, -3, -1, 1, -1, 1]
72	F_{67}	[2, 2, 1, 1, 2, -1, 0, -2, 1, -1, -2, 1, 1, -2, 2, 1, -3, 1, 0, -1, -3, 1, -1, 0, 1]
73	F_{68}	[2, 2, 1, 1, 2, -1, -1, -1, 1, -1, 2, -2, 1, -2, 1, 2, -3, 1, 1, 0, -4, 2, -2, 0, 2]
74	F_{69}	[2, 2, 1, 1, 2, -1, -1, -1, 1, -1, 1, -2, 1, -2, 1, 2, -3, 1, 0, -1, -3, 1, -1, 0, 1]
75	F_{70}	[2, 2, 1, 1, 2, -1, -1, -2, 1, -1, 0, 1, 0, 1, -2, 1, -3, 1, 0, 0, -3, 0, 1, -1, 1]
76	F_{71}	[2, 2, 1, 1, 2, -2, 1, 1, 1, 1, -1, -1, 1, -1, -1, -1, -2, 0, 0, 1, -4, 0, 0, -1, 1]
77	F_{72}	[2, 2, 1, 1, 1, 1, -1, -1, 1, -1, 1, 0, 1, -1, -1, 0, -2, 0, 0, 0, -3, -1, -1, 0, 0]
78	F_{73}	[2, 2, 1, 0, 2, -1, -1, 1, 1, -1, 0, -1, 0, 1, -1, -1, -2, -1, 0, 0, -2, -1, 0, 0, 0]
79	F_{74}	[2, 1, 1, 1, 1, 2, -1, -1, 1, -1, 0, 0, 1, -1, -1, -1, -2, 0, 0, 1, -3, -1, 1, 0, 1]
80	F_{75}	[2, 1, 1, 1, 1, 1, 1, -2, 1, 1, -2, 0, 1, -2, -1, -1, -2, 0, 0, 1, -3, -1, 0, 1, 1]
81	F_{76}	[2, 1, 1, 1, 1, 1, -1, -1, 1, -1, 1, -1, 1, -1, -1, 0, -2, 1, 0, 0, -3, -1, 0, 1, 1]
82	F_{77}	[2, 1, 1, 1, 1, 1, -1, -1, 1, -1, 1, -1, 1, -1, -1, 0, -2, 0, -1, 0, -2, -1, 0, 0, 0]
83	F_{78}	[2, 1, 1, 1, 1, 0, -1, -1, 1, -1, 0, -1, 0, 1, -1, 0, -2, 0, 0, 0, -2, -1, 0, 0, 0]
84	F_{79}	[2, 1, 1, 1, 1, 0, -1, -1, 1, -1, -1, -1, 0, 1, 1, -2, -2, 0, 1, 0, -2, -1, 0, 1, 1]
85	F_{80}	[1, 1, 1, 1, 1, 1, 0, -1, 1, 0, -1, 1, 1, -1, 0, 0, -2, 0, -1, 0, -2, -1, 0, 0, 0]

Continued on next page

Table 21 – continued from previous page

Nº	Name	Representative Facet
86	F_{81}	[6, 4, 2, 2, 4, -3, -2, -4, 2, -3, -4, 3, 2, -5, 4, 1, -6, 2, 2, 0, -8, 4, 0, -2, 4]
87	F_{82}	[6, 3, 2, 1, 3, -1, -2, -2, 2, -3, -2, 1, 1, -3, 2, -1, -6, 2, 0, 0, -6, 1, 0, 1, 2]
88	F_{83}	[5, 4, 3, 3, 4, -2, -2, -2, 1, -2, 3, -1, 1, -2, -1, 2, -5, 0, 0, 0, -6, 0, -3, -2, 0]
89	F_{84}	[5, 4, 3, 3, 3, -4, -1, -1, 2, 3, -1, -5, 2, 2, -4, 2, -6, 1, 1, 0, -7, -4, 2, 0, 2]
90	F_{85}	[5, 4, 3, 2, 4, -2, -2, -2, 1, -2, -1, 3, 1, -3, 2, -1, -5, 0, 0, 1, -6, 1, -2, -2, 1]
91	F_{86}	[5, 4, 3, 1, 4, -2, -2, -2, 3, -2, -1, 3, 1, -2, 2, -1, -6, 0, -3, 0, -5, 0, -2, 0, 0]
92	F_{87}	[5, 4, 2, 1, 3, -3, -3, -3, 2, -3, -2, 2, 1, -4, 5, -1, -5, 3, 0, 0, -6, 2, -2, 1, 3]
93	F_{88}	[5, 4, 1, 1, 3, -3, -1, -3, 2, -2, -2, 2, 1, -2, 1, 1, -5, 1, 0, -1, -5, 0, 1, -1, 1]
94	F_{89}	[5, 3, 2, 2, 3, -2, -1, -3, 2, -2, -4, 2, 2, -4, 3, 1, -5, 1, 2, 0, -7, 3, 0, -2, 3]
95	F_{90}	[5, 3, 2, 1, 3, -1, -3, -3, 2, -3, -1, 3, 1, -3, 2, -2, -5, 1, 0, 2, -6, 3, -1, 0, 3]
96	F_{91}	[5, 3, 2, 1, 3, -2, -3, -3, 2, -4, -1, 4, 1, -3, 2, -2, -5, 2, 0, 2, -6, 4, -1, 0, 4]
97	F_{92}	[4, 4, 3, 3, 4, -2, -2, -2, 1, -2, 3, -1, 1, -2, -1, 3, -5, 0, 0, -1, -5, 0, -3, -2, 0]
98	F_{93}	[4, 4, 3, 1, 4, -2, -2, -2, 2, -2, -1, 3, 1, -3, 3, -1, -5, 0, -2, 1, -5, 1, -3, 0, 1]
99	F_{94}	[4, 4, 3, 1, 4, -2, -3, -1, 1, -3, 2, -2, 1, -3, 1, 3, -5, 0, 2, -1, -5, 2, -3, 0, 2]
100	F_{95}	[4, 4, 3, 0, 4, -2, -3, 1, 1, -2, 1, -2, 1, -3, 2, 2, -4, -1, 1, 0, -5, 1, -3, -1, 1]
101	F_{96}	[4, 4, 2, 2, 4, -2, -1, -3, 2, -2, -2, 3, 1, -2, 3, 1, -4, 0, 0, -1, -6, 0, -2, -3, 0]
102	F_{97}	[4, 4, 2, 1, 3, -2, -1, -2, 2, -2, -2, 2, 1, -2, 3, 1, -4, 0, 0, -1, -5, 0, -2, -2, 0]
103	F_{98}	[4, 4, 2, 0, 3, -2, -1, 2, 3, -2, -2, -2, 1, -2, 3, -1, -4, -2, 1, 0, -5, 0, -2, 1, 1]
104	F_{99}	[4, 4, 1, 1, 3, -2, 2, -3, 3, -2, -3, 1, 1, -2, 3, 3, -4, 0, -1, -2, -5, 0, -3, -1, 0]
105	F_{100}	[4, 4, 1, 1, 3, -2, 1, -2, 3, -2, -3, 1, 1, -2, 2, 2, -4, -1, 0, -1, -5, 0, -1, -2, 0]
106	F_{101}	[4, 4, 1, 0, 3, -2, -1, 2, 2, -1, -1, -2, 2, -3, 2, -1, -4, 0, 1, 1, -7, 2, -1, 0, 2]
107	F_{102}	[4, 3, 3, 2, 3, -1, -2, -2, 1, -1, -1, 2, 1, -2, 2, -1, -4, 0, 0, 0, -5, 0, -2, -2, 0]
108	F_{103}	[4, 3, 3, 1, 3, -1, -2, -2, 1, -1, -1, 2, 1, -3, 2, -1, -4, 0, 0, 1, -5, 1, -2, -1, 1]
109	F_{104}	[4, 3, 3, 1, 3, -1, -2, -2, 1, -1, -1, 1, 1, -3, 3, -1, -4, 0, 0, 1, -5, 1, -3, 0, 1]
110	F_{105}	[4, 3, 3, 0, 3, -1, -2, 2, 2, -1, -1, -2, 1, -3, 2, 1, -4, -2, 1, 0, -5, 1, -2, 0, 1]
111	F_{106}	[4, 3, 2, 2, 3, -2, -2, -3, 1, -1, -3, 3, 1, -3, 2, 1, -5, 2, 0, 0, -5, 2, 0, -2, 2]
112	F_{107}	[4, 3, 2, 1, 3, -1, -2, -2, 1, -2, -1, 1, 1, -3, 3, -1, -4, 0, 1, 1, -5, 2, -2, 0, 2]
113	F_{108}	[4, 3, 2, 1, 3, -2, -1, -2, 1, -1, -1, 1, 0, 2, -2, -1, -4, 0, 0, 1, -4, -2, 1, 0, 1]
114	F_{109}	[4, 3, 2, 1, 3, -2, -1, -2, 1, -1, -2, 1, 1, -3, 2, 1, -5, 2, 0, 0, -5, 2, -1, 0, 2]
115	F_{110}	[4, 3, 2, 1, 3, -2, -2, -2, 1, -2, -1, 3, 1, -3, 2, -1, -4, 1, 0, 1, -5, 2, -1, -1, 2]
116	F_{111}	[4, 3, 2, 1, 3, -2, -3, -1, 1, -2, 2, -2, 1, -3, 1, 2, -4, 1, 1, 0, -5, 2, -2, 0, 2]
117	F_{112}	[4, 3, 1, 1, 2, -2, -2, -2, 1, -2, 1, -1, 1, -3, -1, 3, -4, 2, 0, 0, -4, 1, 1, -1, 2]
118	F_{113}	[4, 3, 1, 1, 2, -2, -2, -3, 2, -3, 3, -1, 2, -3, -2, 3, -4, 2, 1, 0, -6, 3, -1, 0, 3]
119	F_{114}	[4, 3, 1, 0, 2, 0, -2, 2, 2, -3, -1, -2, 1, -3, 1, 2, -4, 0, 1, -1, -4, 0, 1, -2, 1]
120	F_{115}	[4, 3, 1, 0, 2, -1, -2, 2, 2, -2, -1, -2, 1, -2, 1, 1, -4, 0, 1, -1, -4, 0, 1, -1, 1]
121	F_{116}	[4, 3, 1, 0, 2, -2, -2, 2, 2, -3, -1, -3, 1, -2, 1, 1, -4, 0, 3, 0, -5, 3, 0, 0, 3]
122	F_{117}	[3, 3, 3, 3, 3, 2, -1, -2, 3, -3, 2, -1, 2, -1, -2, 2, -3, 0, 0, 0, -8, -2, -2, -2, 0]
123	F_{118}	[3, 3, 3, 1, 3, 1, -2, -1, 2, -3, 1, 1, 1, -2, 2, -2, -4, 0, 0, 2, -6, 1, -3, 1, 2]
124	F_{119}	[3, 3, 2, 2, 3, 1, -1, -2, 2, -3, 1, 0, 1, -1, -1, 2, -3, 0, 0, 0, -6, -1, -1, -2, 0]
125	F_{120}	[3, 3, 2, 2, 3, -1, -1, -2, 2, -2, 1, 2, 0, 1, -3, 2, -5, 1, -1, 0, -5, 0, 1, -2, 1]
126	F_{121}	[3, 3, 2, 2, 3, -1, -1, -2, 1, -1, -2, 2, 1, -2, 2, 1, -4, 0, 0, -1, -4, 0, -1, -2, 0]
127	F_{122}	[3, 3, 2, 2, 3, -1, -1, -3, 2, -3, 1, 2, 1, 1, -3, 2, -5, 1, 0, -1, -5, 1, 0, -2, 1]
128	F_{123}	[3, 3, 2, 2, 2, 1, -2, -2, 2, -2, 2, 0, 1, -1, -2, 1, -3, 0, 0, 0, -5, -1, -2, -1, 0]
129	F_{124}	[3, 3, 2, 1, 3, -2, -2, -2, 1, -2, 1, 2, 0, 1, -3, 2, -4, 1, -2, 0, -3, -1, 1, -1, 1]
130	F_{125}	[3, 3, 2, 1, 2, 1, -3, -2, 2, -2, 0, 2, 1, -1, 1, -2, -3, 1, 0, 0, -5, -1, 0, -1, 1]
131	F_{126}	[3, 3, 2, 1, 2, -1, -1, -1, 2, -2, -1, 2, 1, -2, 2, -1, -4, 0, -2, 0, -3, 0, -2, 0, 0]
132	F_{127}	[3, 3, 2, 1, 2, -1, -1, -1, 1, -1, -1, 1, 1, -2, 2, 0, -3, 0, 0, 0, -4, 0, -2, -1, 0]
133	F_{128}	[3, 3, 2, 1, 2, -1, -1, -1, 1, -1, -2, 2, 1, -2, 2, 1, -4, 0, 0, -1, -3, 0, -1, -2, 0]
134	F_{129}	[3, 3, 2, 0, 3, -1, -2, 1, 1, -1, 1, -2, 1, -2, 2, 2, -3, -1, 0, -1, -4, 0, -2, -1, 0]
135	F_{130}	[3, 3, 1, 1, 3, -2, -1, -2, 1, -2, 3, 1, 1, -2, -2, 2, -3, 0, -1, 1, -4, 1, -1, -2, 1]
136	F_{131}	[3, 3, 1, 1, 2, 0, -1, -2, 2, -1, -1, 1, 2, -2, 2, 0, -3, 1, 0, 0, -6, 0, -1, 0, 1]

Continued on next page

Table 21 – continued from previous page

Nº	Name	Representative Facet
137	F_{132}	[3, 3, 1, 1, 2, -1, 1, -1, 2, -1, -2, 0, 1, -2, 1, 1, -3, -1, 0, 0, -4, 0, -1, -1, 0]
138	F_{133}	[3, 3, 1, 1, 2, -1, -1, -1, 2, -2, 2, 1, 1, -1, -2, 2, -4, 1, -1, 0, -5, 1, 0, -1, 1]
139	F_{134}	[3, 3, 1, 1, 2, -1, -1, -1, 2, -2, 2, 0, 1, -1, -1, 1, -4, 1, 0, 0, -5, 1, -1, 0, 1]
140	F_{135}	[3, 3, 1, 1, 2, -1, -1, -1, 2, -2, 2, -1, 2, -2, -1, 2, -4, 1, 1, 0, -6, 2, -1, 0, 2]
141	F_{136}	[3, 3, 1, 0, 2, -1, -3, 1, 2, -2, 2, 2, 2, -2, 1, -2, -3, 0, -2, 1, -5, 1, -1, 0, 1]
142	F_{137}	[3, 2, 2, 2, 2, -1, -1, -2, 1, 2, -3, 1, 1, -3, -1, 2, -4, 1, 0, 1, -4, 0, 2, -2, 2]
143	F_{138}	[3, 2, 2, 2, 2, -1, -1, -2, 1, 1, -2, 1, 1, -3, 0, 2, -4, 1, 0, 0, -4, 0, 1, -2, 1]
144	F_{139}	[3, 2, 2, 1, 2, 0, -2, -2, 1, -1, -1, 1, 1, -2, 2, -1, -3, 0, 0, 1, -4, 1, -2, 0, 1]
145	F_{140}	[3, 2, 2, 1, 2, 0, -2, -2, 1, -2, -1, 1, 0, 2, -2, 1, -4, 2, 0, 0, -3, -2, 2, 0, 2]
146	F_{141}	[3, 2, 2, 1, 2, -1, -1, -1, 1, 1, -2, -1, 1, -1, -1, 2, -3, 0, 1, 0, -4, -1, 1, -1, 1]
147	F_{142}	[3, 2, 2, 1, 2, -1, -1, -2, 1, 2, -3, 1, 1, -2, -1, 1, -4, 1, 0, 1, -4, 0, 2, -1, 2]
148	F_{143}	[3, 2, 2, 1, 2, -1, -2, 0, 1, -1, 1, -2, 1, -2, 1, 1, -3, 0, 1, 0, -4, 1, -2, 0, 1]
149	F_{144}	[3, 2, 2, 1, 2, -1, -2, -2, 1, -1, -1, 2, 1, -2, 2, -1, -3, 1, 0, 0, -4, 1, -1, -1, 1]
150	F_{145}	[3, 2, 2, 1, 2, -2, -2, -1, 1, 2, -1, -2, 1, -2, 2, -1, -3, 1, 0, 1, -4, 0, -2, 2, 2]
151	F_{146}	[3, 2, 1, 1, 2, -2, 0, -2, 1, -1, -1, 1, 0, 1, -1, -1, -3, 0, 0, 1, -3, -1, 1, 0, 1]
152	F_{147}	[3, 2, 1, 1, 2, -2, -1, -2, 1, -1, -2, 2, 0, 1, -1, -1, -3, 1, 0, 1, -3, -1, 2, 0, 2]
153	F_{148}	[3, 2, 1, 1, 2, -2, -1, -2, 1, -2, 2, 0, 1, -2, -2, 2, -3, 1, 0, 1, -4, 2, 0, -1, 2]
154	F_{149}	[3, 2, 1, 1, 2, -2, -1, -2, 1, -2, 2, -1, 1, -2, -1, 2, -3, 1, 1, 0, -4, 2, -1, 0, 2]
155	F_{150}	[3, 2, 1, 1, 2, -2, -1, -2, 1, -2, 1, -1, 1, -2, -1, 3, -3, 2, 0, 0, -4, 2, 0, -1, 2]
156	F_{151}	[3, 2, 1, 1, 1, 1, -2, -2, 1, -2, 1, -1, 1, -2, -2, 1, -3, 2, 0, 0, -3, -1, 1, 1, 2]
157	F_{152}	[2, 2, 2, 2, 2, 2, -1, -2, 2, -1, -1, 1, 1, -1, 1, -1, -2, 0, 0, 0, -5, -2, -1, -1, 0]
158	F_{153}	[2, 2, 2, 2, 2, 2, -1, -2, 2, -2, 1, -1, 1, 0, -1, 1, -2, 0, 0, 0, -5, -2, -1, -1, 0]
159	F_{154}	[2, 2, 2, 2, 2, 1, -1, -1, 2, -2, 1, -1, 1, -1, -1, 2, -2, 0, 0, 0, -5, -1, -1, -2, 0]
160	F_{155}	[2, 2, 2, 1, 2, 1, -1, -2, 2, -1, -1, 2, 1, -2, 1, -1, -2, 0, 0, 1, -5, 0, -1, -1, 1]
161	F_{156}	[2, 2, 2, 1, 2, 1, -1, -2, 2, -2, 0, 1, 1, 1, -2, 1, -3, 1, -1, 0, -4, -2, 1, 0, 1]
162	F_{157}	[2, 2, 2, 1, 2, 1, -2, -1, 1, -1, 1, -1, 1, -1, 0, 1, -2, 0, 0, 0, -4, -1, -1, -1, 0]
163	F_{158}	[2, 2, 2, 1, 2, 1, -2, -1, 1, -1, 1, -2, 1, -2, 1, 1, -3, 1, 1, 0, -4, 0, -1, 1, 2]
164	F_{159}	[2, 2, 2, 1, 2, 0, -1, -1, 1, -2, 1, 1, 0, 1, -1, 1, -3, 0, 0, -1, -3, 0, -1, -1, 0]
165	F_{160}	[2, 2, 2, 1, 2, 0, -1, -2, 1, 1, -2, 2, 1, -2, 1, 1, -3, 0, -2, 0, -3, 0, -1, -1, 0]
166	F_{161}	[2, 2, 1, 1, 2, 0, -1, -2, 1, -1, -1, 2, 1, -2, 1, 0, -2, 1, 0, 0, -4, 0, 0, -1, 1]
167	F_{162}	[2, 2, 1, 1, 2, -1, -1, -1, 1, -1, 2, 0, 1, -1, -1, 1, -2, 0, -1, 0, -3, 0, -1, -1, 0]
168	F_{163}	[2, 2, 1, 1, 2, -1, -1, -1, 1, -1, 2, -1, 0, 1, -1, -1, -3, 1, 0, 0, -3, 0, -1, 1, 1]
169	F_{164}	[2, 2, 1, 1, 2, -1, -1, -1, 1, -1, 1, 1, 0, 1, 1, -2, -3, 1, -1, 0, -3, 0, -1, 1, 1]
170	F_{165}	[2, 2, 1, 1, 1, 0, -1, -1, 1, -1, 1, 0, 1, -1, -1, 1, -2, 0, 0, 0, -3, 0, -1, -1, 0]
171	F_{166}	[2, 2, 1, 0, 1, 0, -2, 1, 1, -1, 1, 1, 1, -1, 0, -1, -2, 0, -1, 1, -3, 0, 0, 0, 1]
172	F_{167}	[2, 1, 1, 1, 1, 1, 0, -1, 1, 0, -1, -1, 1, -2, 1, -1, -2, 0, 0, 1, -3, 0, -1, 1, 1]
173	F_{168}	[2, 1, 1, 1, 1, 1, 0, -1, 1, -1, -1, 1, 1, -1, -1, -1, -2, 0, 0, 1, -3, -1, 1, 0, 1]
174	F_{169}	[2, 1, 1, 0, 1, 0, -1, 1, 1, -1, -1, 0, 0, 1, -1, -1, -2, 0, 0, 1, -2, -1, 1, 0, 1]

2.7 (2,2,3,3)

Table 22: Representative Facets of the (2,2,3,3) scenario.

Nº	Name	Representative Facet
1	CHSH	[1, 1, 1, 1, 0, 0, 0, 0, 1, 1, -1, -1, 1, 1, -1, -1, -1, 0, 0, 0, -1, -1, 0, 0, 0]
2	CHSH	[1, 1, 1, 1, 1, 1, 1, 1, 1, 1, -1, -1, 1, 1, -1, -1, -1, -1, 0, 0, -1, -1, 0, 0, 0]
3	I2233	[1, 1, 1, 0, 1, 0, 1, 1, 1, 1, -1, -1, 0, 1, -1, 0, -1, -1, 0, 0, -1, -1, 0, 0, 0]

2.8 (2,2,3,4)

Table 23: Representative Facets of the (2,2,3,4) scenario.

Nº	Name	Representative Facet
1	$CHSH$	[1,1,1,1,1,0,0,0,0,0,0,0,1,1,1,-1,-1,0,0,0,0,0,0,0,-1,0,0,0,-1,-1,-1,0,0,0,0]
2	$CHSH$	[1,1,1,1,1,0,1,1,1,1,1,0,1,1,1,-1,-1,0,1,1,1,-1,-1,0,-1,-1,0,0,-1,-1,-1,0,0,0,0]
3	$CHSH$	[1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,-1,-1,-1,1,1,1,-1,-1,-1,-1,-1,0,0,-1,-1,-1,0,0,0,0]
4	$CHSH$	[1,1,1,1,1,1,0,0,0,0,0,0,1,1,1,-1,-1,-1,1,1,1,-1,-1,-1,-1,0,0,0,-1,-1,-1,0,0,0,0]
5	$CHSH$	[1,1,0,1,1,0,1,1,0,1,1,0,1,1,0,-1,-1,0,1,1,0,-1,-1,0,-1,-1,0,0,-1,-1,-1,0,0,0,0]
6	$CHSH$	[1,1,1,1,1,0,1,1,1,1,1,0,1,1,1,-1,-1,0,0,0,0,0,0,0,-1,-1,0,0,-1,-1,-1,0,0,0,0]
7	$I2233$	[1,1,1,1,1,0,1,1,0,1,1,1,1,1,1,-1,-1,-1,0,0,1,-1,-1,0,-1,-1,0,0,-1,-1,-1,0,0,0,0]
8	$I2233$	[1,1,1,1,1,0,1,0,0,1,1,1,1,1,1,-1,-1,-1,0,1,1,-1,-1,0,-1,-1,0,0,-1,-1,-1,0,0,0,0]

2.9 (2,2,3,5)

Table 24: Representative Facets of the (2,2,3,5) scenario.

Nº	Name	Pre-Lifting Scenario
1	$CHSH$	[1,1,1,1,1,1,1,1,0,0,0,0,0,0,0,0,1,1,1,1,-1,-1,-1,-1,1,1,1,1,-1,-1,-1,-1,-1,0,0,0,-1,-1,-1,-1,0,0,0,0,0]
2	$CHSH$	[1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,-1,-1,-1,-1,1,1,1,1,-1,-1,-1,-1,-1,0,0,-1,-1,-1,-1,0,0,0,0,0]
3	$CHSH$	[1,1,1,1,1,1,1,0,1,1,1,1,1,1,1,0,1,1,1,1,-1,-1,-1,0,1,1,1,1,-1,-1,-1,0,-1,-1,0,0,-1,-1,-1,-1,0,0,0,0,0]
4	$CHSH$	[1,1,1,1,1,1,1,0,1,1,1,1,1,1,1,0,1,1,1,1,-1,-1,-1,0,0,0,0,0,0,0,0,-1,-1,0,0,-1,-1,-1,-1,0,0,0,0,0]
5	$CHSH$	[1,1,1,1,1,1,1,0,0,0,0,0,0,0,0,0,1,1,1,1,-1,-1,-1,0,0,0,0,0,0,0,0,0,-1,0,0,0,-1,-1,-1,-1,0,0,0,0,0]
6	$CHSH$	[1,1,1,1,1,1,1,0,0,0,0,0,0,0,0,0,1,1,1,1,-1,-1,-1,0,1,1,1,1,-1,-1,-1,0,-1,0,0,0,-1,-1,-1,-1,0,0,0,0,0]
7	$CHSH$	[1,1,1,0,1,1,1,0,1,1,1,0,1,1,1,0,1,1,1,0,-1,-1,-1,0,1,1,1,0,-1,-1,-1,0,-1,-1,0,0,-1,-1,-1,-1,0,0,0,0,0]
8	$CHSH$	[1,1,1,0,1,1,1,0,0,0,0,0,0,0,0,0,1,1,1,0,-1,-1,-1,0,1,1,1,0,-1,-1,-1,0,-1,0,0,0,-1,-1,-1,-1,0,0,0,0,0]
9	$I2233$	[1,1,1,1,1,1,1,0,1,1,1,0,1,1,1,1,1,1,1,1,-1,-1,-1,-1,0,0,0,1,-1,-1,-1,0,-1,-1,0,0,-1,-1,-1,-1,0,0,0,0,0]
10	$I2233$	[1,1,1,1,1,1,1,0,1,0,0,0,1,1,1,1,1,1,1,1,-1,-1,-1,-1,0,1,1,1,-1,-1,-1,0,-1,-1,0,0,-1,-1,-1,-1,0,0,0,0,0]
11	$I2233$	[1,1,1,1,1,1,0,0,1,1,0,0,1,1,1,0,1,1,1,1,-1,-1,-1,0,0,0,1,1,-1,-1,-1,0,0,-1,-1,0,0,-1,-1,-1,-1,0,0,0,0,0]
12	$I2233$	[1,1,1,1,1,1,0,0,1,0,0,0,1,1,1,1,1,1,1,1,-1,-1,-1,-1,0,1,1,1,-1,-1,-1,0,0,-1,-1,0,0,-1,-1,-1,-1,0,0,0,0,0]
13	$I2233$	[1,1,1,1,1,1,0,0,1,1,0,0,1,1,1,1,1,1,1,1,-1,-1,-1,-1,0,0,1,1,-1,-1,-1,0,0,-1,-1,0,0,-1,-1,-1,-1,0,0,0,0,0]
14	$I2233$	[1,1,1,1,1,1,1,0,1,1,0,0,1,1,1,1,1,1,1,1,-1,-1,-1,-1,0,0,1,1,-1,-1,-1,0,-1,-1,0,0,-1,-1,-1,-1,0,0,0,0,0]

2.10 (2,2,4,4)

Table 25: Representative Facets of the (2,2,4,4) scenario.

Nº	Name	Representative Facet
1	$CHSH$	[1,1,0,1,1,0,1,1,0,1,1,0,0,0,0,0,0,0,0,1,1,0,-1,-1,0,1,1,0,-1,-1,0,0,0,0,0,0,0,0,-1,-1,0,0,0,0,0,-1,-1,0,0,0,0,0]
2	$CHSH$	[1,1,1,1,1,1,0,0,0,0,0,0,0,0,0,0,0,0,0,1,1,1,1,-1,-1,-1,1,1,1,1,-1,-1,-1,1,1,1,1,-1,-1,-1,-1,0,0,0,0,0,-1,-1,-1,0,0,0,0]
3	$CHSH$	[1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,-1,-1,-1,1,1,1,1,-1,-1,-1,1,1,1,1,-1,-1,-1,-1,-1,-1,0,0,0,-1,-1,-1,0,0,0,0]
4	$CHSH$	[1,1,1,1,1,1,0,0,0,0,0,0,0,0,0,0,0,0,0,1,1,1,1,-1,-1,-1,1,1,1,1,-1,-1,-1,0,0,0,0,0,0,0,0,-1,0,0,0,0,0,-1,-1,-1,0,0,0,0]
5	$CHSH$	[1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,-1,-1,-1,1,1,1,1,-1,-1,-1,0,0,0,0,0,0,0,0,-1,-1,-1,0,0,0,-1,-1,-1,0,0,0,0]
6	$CHSH$	[1,1,1,1,1,1,1,1,1,1,1,1,0,0,0,0,0,0,0,1,1,1,-1,-1,-1,1,1,1,1,-1,-1,-1,0,0,0,0,0,0,0,0,-1,-1,0,0,0,0,0,-1,-1,-1,0,0,0,0]
7	$CHSH$	[1,1,1,1,1,0,1,1,1,1,1,0,0,0,0,0,0,0,0,1,1,1,-1,-1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,-1,-1,0,0,0,0,0,-1,-1,-1,0,0,0,0,0]
8	$CHSH$	[1,1,1,1,1,0,1,1,1,1,1,0,1,1,1,1,1,0,1,1,1,-1,-1,0,1,1,1,-1,-1,0,0,0,0,0,0,0,0,-1,-1,-1,0,0,0,-1,-1,-1,0,0,0,0]
9	$CHSH$	[1,1,1,1,1,1,1,1,1,1,1,1,0,0,0,0,0,0,1,1,1,-1,-1,-1,1,1,1,1,-1,-1,-1,1,1,1,1,-1,-1,-1,-1,-1,0,0,0,0,-1,-1,-1,0,0,0,0]
10	$CHSH$	[1,1,1,1,1,0,1,1,1,1,1,0,0,0,0,0,0,0,1,1,1,-1,-1,0,1,1,1,-1,-1,0,0,0,0,0,0,0,-1,-1,0,0,0,0,-1,-1,-1,0,0,0,0]
11	$I2233$	[1,1,1,1,1,0,1,1,0,1,1,1,0,0,0,0,0,0,1,1,1,-1,-1,-1,0,0,1,-1,-1,0,0,0,1,-1,-1,0,-1,-1,0,0,0,0,-1,-1,-1,0,0,0,0]

Continued on next page

Table 25 – continued from previous page

Nº	Name	Representative Facet
12	$I2233$	[1,1,1,1,1,0,1,1,1,1,1,0,1,1,0,1,1,1,1,1,1,-1,-1,-1,1,1,1,1,-1,-1,-1,0,0,1,-1,-1,0,-1,-1,-1,0,0,0,-1,-1,-1,0,0,0,0]
13	$I2233$	[1,1,1,1,1,0,1,0,0,1,1,1,1,0,0,1,1,1,1,1,1,-1,-1,-1,1,1,1,1,-1,-1,-1,0,1,1,-1,-1,0,-1,-1,-1,0,0,0,-1,-1,-1,0,0,0,0]
14	$I2233$	[1,1,1,1,1,0,1,0,0,1,1,1,1,0,0,1,1,1,1,1,1,-1,-1,-1,0,1,1,-1,-1,0,0,1,1,-1,-1,0,-1,-1,-1,0,0,0,-1,-1,-1,0,0,0,0]
15	$I2233$	[1,1,1,1,1,0,1,1,1,1,1,0,1,0,0,1,1,1,1,1,1,-1,-1,-1,0,1,1,-1,-1,0,0,1,1,-1,-1,0,-1,-1,-1,0,0,0,-1,-1,-1,0,0,0,0]
16	$I2233$	[1,1,1,1,1,0,1,1,1,1,1,0,1,1,0,1,1,1,1,1,1,-1,-1,-1,0,0,1,-1,-1,0,0,0,0,0,0,0,-1,-1,-1,0,0,0,-1,-1,-1,0,0,0,0]
17	$I2233$	[1,1,1,1,1,0,1,1,1,1,1,0,1,1,0,1,1,1,1,1,1,-1,-1,-1,0,0,1,-1,-1,0,0,0,1,-1,-1,0,-1,-1,-1,0,0,0,-1,-1,-1,0,0,0,0]
18	$I[[3,4],[3,4]]$	[2,1,1,2,1,1,1,1,1,1,1,0,1,1,1,1,1,0,2,1,1,-2,-1,-1,1,1,1,-1,-1,0,1,0,0,-1,0,0,-2,-1,-1,0,0,0,-2,-1,-1,0,0,0,0]
19	$I[[3,4],[3,4]]$	[2,2,1,2,1,1,1,1,1,1,1,0,1,1,0,1,1,1,2,2,1,-2,-1,-1,1,1,1,-1,-1,0,0,0,0,0,0,0,-2,-1,-1,0,0,0,-2,-2,-1,0,0,0,0]
20	$I[[3,4],[3,4]]$	[2,2,1,2,1,1,2,2,1,2,1,1,1,1,1,1,1,0,2,2,1,-2,-1,-1,1,1,1,-1,-1,0,1,1,0,-1,0,0,-2,-2,-1,0,0,0,-2,-2,-1,0,0,0,0]
21	$I[[3,4],[3,4]]$	[2,2,1,2,1,1,1,1,1,1,1,0,1,1,1,1,1,0,2,2,1,-2,-1,-1,1,1,1,-1,-1,0,1,1,0,-1,0,0,-2,-1,-1,0,0,0,-2,-2,-1,0,0,0,0]
22	$I[[3,4],[4,4]]$	[2,1,1,2,1,1,1,1,1,1,1,0,1,1,0,1,1,1,2,1,1,-2,-1,-1,1,0,1,-1,-1,0,1,0,1,-1,-1,0,-2,-1,-1,0,0,0,-2,-1,-1,0,0,0,0]
23	$I[[3,4],[4,4]]$	[2,2,1,2,1,1,1,1,1,1,1,0,1,1,0,1,1,1,2,2,1,-2,-1,-1,1,1,1,-1,-1,0,1,1,0,-1,0,0,-2,-1,-1,0,0,0,-2,-2,-1,0,0,0,0]
24	$I2244^{1}$	[1,1,1,1,0,0,1,1,0,1,1,0,1,0,0,1,1,1,1,1,1,-1,-1,-1,0,1,1,-1,-1,0,0,0,1,-1,0,0,-1,-1,-1,0,0,0,-1,-1,-1,0,0,0,0]
25	$I2244^{2}$	[2,1,1,2,1,1,1,2,1,1,2,1,1,1,1,1,1,1,0,2,1,1,-2,-1,-1,1,0,1,-1,0,0,1,-1,0,-1,1,0,-2,-2,-1,0,0,0,-2,-1,-1,0,-1,0,0]
26	$I2244^{3}$	[3,2,1,3,2,1,2,2,1,2,1,1,1,1,1,1,1,0,3,2,1,-3,-2,-1,2,1,1,-2,-1,0,1,1,0,-1,0,0,-3,-2,-1,0,0,0,-3,-2,-1,0,0,0,0]
27	$I2244^{4}$	[2,2,1,2,1,0,2,1,1,2,2,0,0,1,0,1,1,1,2,1,1,-2,-2,0,1,2,1,-2,-1,-1,1,1,1,-1,-1,0,-2,-2,-1,0,0,0,-2,-2,-1,0,0,0,0]
28	$I2244^{5}$	[2,1,1,2,1,1,1,1,1,1,1,0,1,1,0,1,1,1,2,1,1,-2,-1,-1,1,1,1,-1,-1,-1,1,0,1,-1,-1,0,-2,-1,-1,0,0,0,-2,-1,-1,0,0,0,0]
29	$I2244^{6}$	[3,2,2,3,2,1,2,2,1,2,2,1,2,1,0,2,2,2,3,2,2,-3,-2,-2,2,2,2,2,-2,-2,-1,1,1,2,-2,-1,0,-3,-2,-2,0,0,0,-3,-2,-2,0,0,0,0]
30	$I2244^{7}$	[2,2,2,2,1,0,2,1,1,2,2,1,0,1,0,0,0,-1,2,1,2,-2,-2,-1,1,2,2,-1,0,1,1,1,1,-1,-1,0,-2,-2,0,0,-1,0,-2,-2,-2,0,0,0,0]
31	$I2244^{8}$	[2,2,2,2,1,0,2,1,1,2,2,1,1,1,0,1,1,1,2,2,2,-2,-2,-1,1,1,2,-2,-1,0,0,1,1,-1,0,0,-2,-2,-1,0,0,0,-2,-2,-2,0,0,0,0]
32	$I2244^{9}$	[2,2,2,2,1,0,2,2,1,2,1,1,2,1,1,2,2,1,2,2,2,-2,-2,-1,1,1,2,-2,-1,0,0,1,1,-1,0,0,-2,-2,-2,0,0,0,-2,-2,-2,0,0,0,0]
33	$I2244^{10}$	[2,2,1,2,1,1,2,1,1,2,2,1,1,1,1,1,1,1,0,2,2,1,-2,-2,-1,1,1,1,-1,-1,0,0,1,0,-1,0,0,-2,-2,-1,0,0,0,-2,-2,-1,0,0,0,0]

2.11 (3,2,3,3)

Table 26: Representative Facets of the (3,2,3,3) scenario.

Nº	Name	Representative Facet
1	$CHSH$	[1, 1, 1, 1, 0, 0, 0, 0, 1, 1, -1, -1, 1, 1, -1, -1, 0, 0, 0, 0, 0, 0, 0, 0, -1, 0, 0, 0, 0, 0, 0, -1, -1, 0, 0, 0]
2	$CHSH$	[1, 1, 1, 1, 1, 1, 1, 1, 1, 1, -1, -1, 1, 1, -1, -1, 0, 0, 0, 0, 0, 0, 0, 0, -1, -1, 0, 0, 0, 0, 0, -1, -1, 0, 0, 0]
3	$I[[2,2,2],[2,3]]$	[1, 1, 1, 0, 1, 1, 1, 0, 1, 0, -1, 0, 0, 0, 0, 0, 0, 1, -1, 0, 0, 0, 0, 0, 0, -1, -1, 0, 0, 0, 0, 0, -1, -1, 0, 0, 0]
4	$I[[2,2,2],[2,3]]$	[1, 1, 1, 1, 0, 0, 0, 0, 1, 1, 0, -1, 0, 0, 0, 0, 1, 1, -1, 0, 0, 0, 0, 0, 0, -1, 0, 0, 0, 0, 0, 0, -2, -2, 0, 0, 0]
5	$I[[2,2,2],[2,3]]$	[1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 0, -1, 1, 1, 0, -1, 1, 1, -1, 0, 1, 1, -1, 0, -1, -1, 0, 0, 0, 0, 0, -2, -2, 0, 0, 0]
6	$I[[2,2,2],[2,3]]$	[1, 1, 1, 0, 1, 1, 1, 0, 1, 1, 0, 1, 1, 1, 0, 1, 1, 1, -1, -1, 1, 1, -1, -1, -1, -1, -1, -1, 0, 0, -1, -1, 0, 0, 0]
7	$I[[2,2,2],[2,3]]$	[1, 1, 1, 0, 1, 1, 1, 0, 1, 1, 0, 1, 0, 0, 0, 0, 1, 1, -1, -1, 0, 0, 0, 0, -1, -1, -1, 0, 0, 0, -1, -1, 0, 0, 0]
8	$I[[2,2,2],[2,3]]$	[1, 1, 1, 0, 1, 1, 1, 0, 1, 1, 0, 1, 1, 1, 0, 1, 1, 1, -1, -1, 0, 0, 0, 0, -1, -1, -1, -1, 0, 0, -1, -1, 0, 0, 0]
9	$I[[2,2,2],[2,3]]$	[1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 0, -1, 0, 0, 0, 0, 1, 1, -1, 0, 0, 0, 0, 0, -1, -1, 0, 0, 0, 0, -2, -2, 0, 0, 0]
10	$I[[2,2,2],[2,3]]$	[1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 0, -1, 1, 1, 0, -1, 1, 1, -1, 0, 0, 0, 0, 0, -1, -1, 0, 0, 0, 0, -2, -2, 0, 0, 0]
11	$I3223$	[2, 1, 2, 1, 2, 1, 2, 1, 2, 1, -2, -1, 2, 1, -2, -1, 0, 1, 0, 1, 0, 1, 0, 1, -2, -2, 0, 0, -1, -1, -2, -1, 0, 0, 0]
12	$I3223$	[2, 1, 2, 1, 2, 1, 2, 1, 2, 1, -2, -1, 2, 1, -2, -1, 0, 1, 0, 1, 0, 0, 0, 0, -2, -2, 0, 0, -1, 0, -2, -1, 0, 0, 0]
13	$I3322$	[1, 1, 1, 0, 1, 0, 1, 1, 1, 1, -1, -1, 0, 1, -1, 0, 0, 0, 0, 0, 0, 0, 0, 0, -1, -1, 0, 0, 0, 0, -1, -1, 0, 0, 0]
14	$I[[2,2,3],[3,3]]^{1}$	[2, 1, 2, 1, 2, 1, 2, 1, 1, 1, 0, 1, 1, 0, -1, 0, 1, 1, -1, -1, 1, 1, -1, -1, -2, -2, -1, 0, 0, 0, -2, -1, 0, 0, 0]
15	$I[[2,2,3],[3,3]]^{1}$	[2, 1, 2, 1, 2, 1, 2, 1, 1, 1, -1, -1, 0, 1, -1, 0, 1, 0, -1, 0, 1, 0, -1, 0, -2, -2, 0, 0, 0, 0, -2, -1, 0, 0, 0]
16	$I[[2,2,3],[3,3]]^{1}$	[2, 1, 2, 1, 2, 1, 2, 1, 2, 1, -2, -1, 1, 1, -1, -1, 0, 1, 0, 1, 0, 1, 0, 1, -2, -2, 0, 0, -1, -1, -2, -1, 0, 0, 0]
17	$I[[2,2,3],[3,3]]^{1}$	[2, 1, 2, 1, 2, 1, 2, 1, 2, 1, -2, -1, 1, 1, -1, -1, 0, 1, 0, 1, 0, 0, 0, 0, -2, -2, 0, 0, -1, 0, -2, -1, 0, 0, 0]
18	$I[[2,2,3],[3,3]]^{2}$	[1, 1, 1, 1, 1, 1, 1, 1, 1, 1, -1, -1, 1, 0, 0, -1, 1, 0, -1, 0, 1, 0, -1, 0, -1, -1, 0, 0, 0, 0, -2, -1, 0, 0, 0]
19	$I[[2,2,3],[3,3]]^{2}$	[1, 1, 1, 1, 0, 0, 0, 0, 1, 1, -1, -1, 1, 0, 0, -1, 1, 0, -1, 0, 1, 0, -1, 0, -1, 0, 0, 0, 0, 0, -2, -1, 0, 0, 0]
20	$I[[2,3,3],[3,3]]^{1}$	[2, 1, 2, 1, 1, 1, 1, 0, 2, 1, -2, -1, 1, 1, -1, -1, 0, 1, 0, 1, 0, 0, 0, 0, -2, -1, 0, 0, -1, 0, -2, -1, 0, 0, 0]

Continued on next page

Table 26 – continued from previous page

Nº	Name	Representative Facet
21	$I[[2,3,3],[3,3]]^1$	[2, 1, 2, 1, 1, 1, 1, 0, 2, 1, -2, -1, 1, 0, -1, 0, 0, 1, 0, 1, 0, 0, 0, 0, -2, -1, 0, 0, -1, 0, -2, -1, 0, 0, 0]
22	$I[[2,3,3],[3,3]]^1$	[2, 1, 2, 1, 1, 1, 1, 1, 2, 1, -2, -1, 1, 1, -1, 0, 0, 1, 0, -1, 0, 1, 0, -1, -2, -1, 0, 0, 0, 0, -2, -2, 0, 0, 0]
23	$I[[2,3,3],[3,3]]^1$	[2, 1, 2, 1, 1, 1, 1, 0, 2, 1, -2, -1, 1, 1, -1, -1, 0, 1, 0, 1, 0, 1, 0, 1, -2, -1, 0, 0, -1, -1, -2, -1, 0, 0, 0]
24	$I[[2,3,3],[3,3]]^1$	[2, 1, 2, 1, 1, 1, 1, 0, 2, 1, -2, -1, 1, 0, -1, 0, 0, 1, 0, 1, 0, 1, 0, 1, -2, -1, 0, 0, -1, -1, -2, -1, 0, 0, 0]
25	$I[[2,3,3],[3,3]]^2$	[2, 2, 2, 1, 2, 2, 2, 1, 1, 1, -1, -1, 1, 0, -1, 0, 1, 1, -1, -1, 0, 1, -1, 0, -2, -2, 0, 0, 0, 0, -2, -2, 0, 0, 0]
26	$I[[2,3,3],[3,3]]^2$	[2, 2, 2, 1, 0, 0, 0, 0, 1, 1, -1, -1, 1, 0, -1, 0, 1, 1, -1, -1, 0, 1, -1, 0, -2, 0, 0, 0, 0, 0, -2, -2, 0, 0, 0]
27	$I[[2,3,3],[3,3]]^1$	[2, 1, 2, 1, 1, 1, 1, 1, 1, 1, -1, 0, 1, 1, -1, 0, 1, 1, -1, -1, 0, 1, 0, -1, -2, -1, 0, 0, 0, 0, -2, -2, 0, 0, 0]
28	$I[[2,3,3],[3,3]]^1$	[2, 1, 2, 1, 1, 1, 1, 1, 1, 1, -1, 0, 0, 0, 0, 0, 1, 1, -1, -1, 0, 1, 0, -1, -2, -1, 0, 0, 0, 0, -2, -2, 0, 0, 0]
29	$I[[2,3,3],[3,3]]^3$	[2, 2, 2, 0, 2, 1, 2, 1, 1, 2, -2, -1, 1, 2, -2, -1, 1, 1, 0, 1, 1, 0, -1, 0, -2, -2, 0, 0, -1, 0, -2, -2, 0, 0, 0]
30	$I[[2,3,3],[3,3]]^3$	[2, 2, 2, 0, 2, 1, 2, 1, 1, 2, -2, -1, 0, 0, 0, 0, 1, 1, 0, 1, 1, 0, -1, 0, -2, -2, 0, 0, -1, 0, -2, -2, 0, 0, 0]
31	$I[[2,3,3],[3,3]]^1$	[2, 1, 2, 1, 1, 1, 1, 0, 1, 1, 0, 1, 1, 0, -1, 0, 1, 1, -1, -1, 0, 0, 0, 0, -2, -1, -1, 0, 0, 0, -2, -1, 0, 0, 0]
32	$I[[2,3,3],[3,3]]^1$	[2, 1, 2, 1, 1, 1, 1, 0, 1, 1, 0, 1, 1, 0, -1, 0, 1, 1, -1, -1, 1, 1, -1, -1, -2, -1, -1, 0, 0, 0, -2, -1, 0, 0, 0]
33	$I3233^1$	[1, 1, 1, 0, 1, 0, 1, 1, 1, 1, 0, 1, 1, 0, -1, 0, 1, 1, -1, -1, 1, 0, 0, -1, -1, -1, -1, 0, 0, 0, -2, -1, 0, 0, 0]
34	$I3233^2$	[2, 2, 2, 1, 1, 1, 1, 1, 1, 1, -1, -1, 1, 0, -1, 0, 1, 1, -1, -1, 0, 1, -1, 0, -2, -1, 0, 0, 0, 0, -2, -2, 0, 0, 0]
35	$I3233^3$	[2, 2, 2, 1, 2, 1, 2, 2, 2, 1, -2, -1, 1, 1, -1, 0, 1, 1, -1, -1, 1, 0, 0, -1, -2, -2, 0, 0, 0, 0, -3, -2, 0, 0, 0]
36	$I3233^4$	[2, 2, 2, 0, 2, 1, 2, 1, 1, 2, -2, -1, 1, 1, -1, -1, 1, 1, 0, 1, 1, 0, -1, 0, -2, -2, 0, 0, -1, 0, -2, -2, 0, 0, 0]
37	$I3233^5$	[2, 2, 2, 0, 2, 1, 2, 1, 1, 2, -2, -1, 0, 1, -1, 0, 1, 1, 0, 1, 1, 0, -1, 0, -2, -2, 0, 0, -1, 0, -2, -2, 0, 0, 0]

2.12 (2,3,3,2)

Table 27: Representative Facets of the (2,3,3,2) scenario.

Nº	Name	Representative Facet
1	CHSH	[1, 1, 0, 1, 1, 0, 1, -1, 0, 1, -1, 0, -1, -1, 0, 0, -1, 0, 0, 0]
2	I[[2,3],[2,2,2]]	[1, 1, 1, 1, 1, 1, 1, 0, -1, 0, 1, -1, -1, -1, 0, 0, -1, -1, 0, 0]
3	I[[2,3],[2,2,2]]	[1, 1, 1, 1, 1, 1, 1, 0, -1, 1, -1, 0, -2, -2, 0, 0, -1, 0, 0, 0]
4	I2332	[2, 2, 0, 1, 1, 1, 2, -2, 0, 1, -1, 1, -2, -1, 0, 0, -2, 0, -1, 0]

2.13 (3,3,3,2)

Table 28: Representative Facets of the (3,3,3,2) scenario.

Nº	Name	Representative Facet
1	$CHSH$	[1, 1, 0, 1, 1, 0, 1, -1, 0, 1, -1, 0, 0, 0, 0, 0, 0, 0, -1, -1, 0, 0, 0, 0, -1, 0, 0, 0]
2	$I[[2,3],[2,2,2]]$	[1, 1, 1, 1, 1, 1, 1, 0, -1, 0, 1, -1, 0, 0, 0, 0, 0, 0, -1, -1, 0, 0, 0, 0, -1, -1, 0, 0]
3	$I[[2,3],[2,2,2]]$	[1, 1, 1, 1, 1, 1, 1, 0, -1, 1, -1, 0, 0, 0, 0, 0, 0, 0, -2, -2, 0, 0, 0, 0, -1, 0, 0, 0]
4	$I2332$	[2, 2, 0, 1, 1, 1, 2, -2, 0, 1, -1, 1, 0, 0, 0, 0, 0, 0, -2, -1, 0, 0, 0, 0, -2, 0, -1, 0]
5	$I3322$	[1, 1, 1, 1, 1, 1, 1, 1, -1, 1, 1, -1, 1, -1, 0, 1, -1, 0, -1, -1, 0, 0, 0, 0, -2, -1, 0, 0]
6	$I3322$	[1, 1, 1, 1, 1, 1, 1, 1, -1, 1, 1, -1, 1, -1, 0, 1, -1, 0, -2, -2, -1, -1, 0, 0, -1, 0, 0, 0]
7	$I3322$	[1, 1, 1, 1, 1, 1, 1, 1, -1, 0, 0, 0, 1, -1, 0, 1, -1, 0, -1, -1, 0, 0, 0, 0, -2, -1, 0, 0]
8	$I[[2,2,3],[2,2,2]]^1$	[2, 2, 0, 1, 1, 1, 1, -1, 1, 1, -1, 1, 1, -1, -1, 0, 0, 0, -2, -1, 0, 0, 0, 0, -2, 0, -1, 0]
9	$I[[2,2,3],[2,2,2]]^1$	[2, 2, 0, 1, 1, 1, 1, -1, 1, 0, 0, 0, 1, -1, -1, 1, -1, -1, -2, -1, 0, 0, 0, 0, -2, 0, -1, 0]
10	$I[[2,2,3],[2,2,2]]^2$	[2, 1, 1, 2, 1, 1, 1, 0, -1, 0, 1, -1, 1, -1, -1, 1, -1, -1, -2, -2, 0, 0, 1, 1, -2, 0, 1, 1]
11	$I[[2,2,3],[2,2,2]]^2$	[2, 1, 1, 2, 1, 1, 1, 0, -1, 1, -1, 0, 1, -1, -1, 1, -1, -1, -2, -2, 0, 0, 0, 0, -2, 0, 0, 0]
12	$I[[2,2,3],[2,2,2]]^2$	[2, 1, 1, 2, 1, 1, 1, 0, -1, 0, 1, -1, 1, -1, -1, 0, 0, 0, -2, -2, 0, 0, 1, 0, -2, 0, 1, 1]
13	$I[[2,2,3],[2,2,2]]^2$	[2, 1, 1, 2, 1, 1, 1, 0, -1, 1, -1, 0, 1, -1, -1, 0, 0, 0, -2, -2, 0, 0, 0, 0, -2, 0, 0, 0]

Continued on next page

Table 28 – continued from previous page

Nº	Name	Representative Facet
14	$I[[2,2,3],[2,2,2]]^1$	[2, 2, 0, 1, 1, 1, 1, -1, 1, 1, -1, 1, 1, -1, -1, 1, -1, -1, -2, -1, 0, 0, 0, 0, -2, 0, -1, 0]
15	$I[[2,2,3],[2,2,2]]^3$	[2, 2, 2, 1, 1, 1, 2, -1, -1, 2, -1, -1, 0, 1, -1, 0, 1, -1, -3, -1, 0, 0, 0, 0, -2, -1, 0, 0]
16	$I[[2,3,3],[2,2,2]]^1$	[1, 1, 0, 1, 1, 0, 1, 0, 1, 0, 1, 1, 1, 0, -1, 0, 1, -1, -1, -1, -1, -1, 0, 0, -1, -1, 0, 0]
17	$I[[2,3,3],[2,2,2]]^1$	[1, 1, 0, 1, 1, 0, 1, 0, 1, 1, -1, 0, 1, 0, -1, 1, -1, 0, -1, -1, -1, 0, 0, 0, -2, 0, 0, 0]
18	$I[[2,3,3],[2,2,2]]^2$	[2, 2, 1, 2, 2, 1, 2, -2, 0, 1, -1, -1, 1, 0, -1, 0, 1, -1, -3, -3, 0, 1, 0, 0, -2, 0, 1, 1]
19	$I[[2,3,3],[2,2,2]]^2$	[2, 2, 1, 2, 2, 1, 2, -2, 0, 1, -1, 1, 1, 0, -1, 1, -1, 0, -2, -2, 0, 0, 0, 0, -3, 0, -1, 0]
20	$I[[2,3,3],[2,2,2]]^3$	[2, 2, 2, 1, 1, 1, 2, -1, -1, 1, 0, -1, 0, 1, -1, 0, 0, 0, -3, -1, 0, 0, 0, 0, -2, -1, 0, 0]
21	$I[[2,3,3],[2,2,2]]^3$	[2, 2, 2, 1, 1, 1, 2, -1, -1, 1, 0, -1, 0, 1, -1, 0, 1, -1, -3, -1, 0, 0, 0, 0, -2, -1, 0, 0]
22	$I[[2,3,3],[2,2,2]]^4$	[2, 1, 1, 1, 1, 0, 1, 0, -1, 1, -1, 0, 1, -1, -1, 0, 0, 0, -2, -1, 0, 0, 0, 0, -2, 0, 0, 0]
23	$I[[2,3,3],[2,2,2]]^4$	[2, 1, 1, 1, 1, 0, 1, 0, -1, 1, -1, 0, 1, -1, -1, 1, -1, -1, -2, -1, 0, 0, 0, 0, -2, 0, 0, 0]
24	$I3332$	[2, 2, 1, 1, 1, 1, 2, -2, 0, 1, -1, 1, 1, 0, -1, 1, -1, 0, -2, -1, 0, 0, 0, 0, -3, 0, -1, 0]

2.14 (3,3,4,2)

Table 29: Representative Facets of the (3,3,4,2) scenario.

Nº	Name	Representative Facet
1	$CHSH$	[1,1,0,1,1,0,0,0,0,1,-1,0,1,-1,0,0,0,0,0,0,0,0,0,0,0,0,0,-1,-1,0,0,0,0,0,0,0,0,-1,0,0,0]
2	$CHSH$	[1,1,0,1,1,0,1,1,0,1,-1,0,1,-1,0,1,-1,0,0,0,0,0,0,0,0,0,0,0,-1,-1,-1,0,0,0,0,0,0,0,-1,0,0,0]
3	$CHSH$	[1,1,0,1,1,0,1,1,0,1,-1,0,1,-1,0,0,0,0,0,0,0,0,0,0,0,0,0,-1,-1,-1,0,0,0,0,0,0,0,-1,0,0,0]
4	$I3322$	[1,1,1,1,1,1,1,1,1,1,1,-1,1,1,-1,1,1,-1,1,-1,0,1,-1,0,0,0,0,-1,-1,-1,0,0,0,0,0,0,0,-2,-1,0,0]
5	$I3322$	[1,1,1,1,1,1,1,1,1,1,1,-1,1,1,-1,1,1,-1,1,-1,0,1,-1,0,0,0,0,-2,-2,-2,-1,-1,-1,0,0,0,-1,0,0,0]
6	$I3322$	[1,1,1,1,1,1,1,1,1,1,1,-1,1,1,-1,1,1,-1,1,-1,0,1,-1,0,1,-1,0,-1,-1,-1,0,0,0,0,0,0,0,-2,-1,0,0]
7	$I3322$	[1,1,1,1,1,1,1,1,1,1,1,-1,1,1,-1,1,1,-1,1,-1,0,1,-1,0,1,-1,0,-2,-2,-2,-1,-1,-1,0,0,0,-1,0,0,0]
8	$I3322$	[1,1,1,1,1,1,1,1,1,1,1,-1,0,0,0,0,0,0,0,1,-1,0,1,-1,0,0,0,0,-1,-1,-1,0,0,0,0,0,0,0,-2,-1,0,0]
9	$I3322$	[1,1,1,1,1,1,0,0,0,1,1,-1,1,1,-1,0,0,0,1,-1,0,1,-1,0,0,0,0,-1,-1,0,0,0,0,0,0,0,-2,-1,0,0]
10	$I3322$	[1,1,1,1,1,1,1,1,1,1,1,-1,0,0,0,0,0,0,0,1,-1,0,1,-1,0,1,-1,0,-1,-1,-1,0,0,0,0,0,0,0,-2,-1,0,0]
11	$I3322$	[1,1,1,1,1,1,1,1,1,1,1,-1,1,1,-1,0,0,0,0,1,-1,0,1,-1,0,0,0,0,-1,-1,-1,0,0,0,0,0,0,0,-2,-1,0,0]
12	$I3322$	[1,1,1,1,1,1,1,1,1,1,1,-1,1,1,-1,0,0,0,0,1,-1,0,1,-1,0,0,0,0,-2,-2,-2,-1,-1,0,0,0,0,-1,0,0,0]
13	$I3322$	[1,1,1,1,1,1,0,0,0,1,1,-1,1,1,-1,0,0,0,0,1,-1,0,1,-1,0,1,-1,0,-1,-1,0,0,0,0,0,0,0,-2,-1,0,0]
14	$I3322$	[1,1,1,1,1,1,1,1,1,1,1,-1,1,1,-1,0,0,0,0,1,-1,0,1,-1,0,1,-1,0,-1,-1,-1,0,0,0,0,0,0,0,-2,-1,0,0]
15	$I3322$	[1,1,1,1,1,1,1,1,1,1,1,-1,1,1,-1,0,0,0,0,1,-1,0,1,-1,0,1,-1,0,-2,-2,-2,-1,-1,0,0,0,0,-1,0,0,0]
16	$I[[2,2,3],[2,2,2]]^1$	[2,2,0,1,1,1,1,1,1,1,-1,1,1,-1,1,1,-1,1,1,-1,-1,0,0,0,0,0,0,-2,-1,-1,0,0,0,0,0,0,0,-2,0,-1,0]
17	$I[[2,2,3],[2,2,2]]^1$	[2,2,0,1,1,1,1,1,1,1,-1,1,0,0,0,0,0,0,0,1,-1,-1,1,-1,-1,1,-1,-1,-2,-1,-1,0,0,0,0,0,0,0,-2,0,-1,0]
18	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,2,1,1,1,0,-1,1,0,-1,0,1,-1,1,-1,-1,1,-1,-1,1,-1,-1,-2,-2,-2,0,0,0,0,1,1,1,-2,0,1,1]
19	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,2,1,1,1,0,-1,1,-1,0,0,0,0,0,1,-1,-1,1,-1,-1,1,-1,-1,-2,-2,-2,0,0,0,0,0,0,0,-2,0,0,0]
20	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,2,1,1,1,0,-1,1,0,-1,0,1,-1,1,-1,-1,0,0,0,0,0,0,0,-2,-2,-2,0,0,0,1,0,0,-2,0,1,1]
21	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,2,1,1,1,0,-1,1,-1,0,0,0,0,0,1,-1,-1,0,0,0,0,0,0,0,-2,-2,-2,0,0,0,0,0,0,0,-2,0,0,0]
22	$I[[2,2,3],[2,2,2]]^1$	[2,2,0,1,1,1,1,1,1,1,1,-1,1,1,-1,1,1,-1,1,1,-1,-1,1,-1,-1,1,-1,-1,1,-1,-2,-1,-1,0,0,0,0,0,0,-2,0,-1,0]
23	$I[[2,2,3],[2,2,2]]^1$	[2,2,0,2,2,0,1,1,1,1,-1,1,0,0,0,0,0,0,0,1,-1,-1,1,-1,-1,1,-1,-1,-2,-2,-1,0,0,0,0,0,0,0,-2,0,-1,0]
24	$I[[2,2,3],[2,2,2]]^1$	[2,2,0,2,2,0,1,1,1,1,-1,1,1,-1,1,1,-1,1,1,-1,-1,0,0,0,0,0,0,0,-2,-2,-1,0,0,0,0,0,0,0,-2,0,-1,0]
25	$I[[2,2,3],[2,2,2]]^3$	[2,2,2,1,1,1,1,1,1,2,-1,-1,2,-1,-1,0,0,0,0,1,-1,0,1,-1,0,0,0,-3,-1,-1,0,0,0,0,0,0,0,-2,-1,0,0]
26	$I[[2,2,3],[2,2,2]]^1$	[2,2,0,1,1,1,1,1,1,1,-1,1,1,-1,1,0,0,0,1,-1,-1,1,-1,-1,0,0,0,-2,-1,-1,0,0,0,0,0,0,0,-2,0,-1,0]
27	$I[[2,2,3],[2,2,2]]^3$	[2,2,2,2,2,2,1,1,1,2,-1,-1,2,-1,-1,2,-1,-1,0,1,-1,0,1,-1,0,0,0,-3,-3,-1,0,0,0,0,0,0,0,-2,-1,0,0]
28	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,2,1,1,1,0,-1,1,0,-1,0,1,-1,1,-1,-1,1,-1,-1,0,0,0,-2,-2,-2,0,0,0,1,1,0,-2,0,1,1]
29	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,2,1,1,1,0,-1,1,-1,0,0,0,0,1,-1,-1,1,-1,-1,0,0,0,-2,-2,-2,0,0,0,0,0,0,0,-2,0,0,0]
30	$I[[2,2,3],[2,2,2]]^3$	[2,2,2,1,1,1,1,1,1,2,-1,-1,2,-1,-1,2,-1,-1,0,1,-1,0,1,-1,0,0,0,-3,-1,-1,0,0,0,0,0,0,0,-2,-1,0,0]
31	$I[[2,2,3],[2,2,2]]^3$	[2,2,2,2,2,2,1,1,1,2,-1,-1,0,0,0,0,0,0,0,1,-1,0,1,-1,0,0,0,-3,-3,-1,0,0,0,0,0,0,0,-2,-1,0,0]

Continued on next page

Table 29 – continued from previous page

Nº	Name	Representative Facet
32	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,0,0,0,1,0,-1,1,0,-1,0,1,-1,1,-1,-1,1,-1,-1,1,-1,-1,-2,-2,0,0,0,0,1,1,1,-2,0,1,1]
33	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,0,0,0,1,0,-1,1,0,-1,0,1,-1,1,-1,-1,0,0,0,0,0,0,0,-2,-2,0,0,0,0,1,0,0,-2,0,1,-1]
34	$I[[2,2,3],[2,2,2]]^1$	[2,2,0,1,1,1,1,1,1,1,-1,1,1,-1,1,1,-1,1,1,-1,-1,1,-1,-1,0,0,0,-2,-1,-1,0,0,0,0,0,0,-2,0,-1,0]
35	$I[[2,2,3],[2,2,2]]^1$	[2,2,0,1,1,1,1,1,1,1,-1,1,1,-1,1,0,0,0,1,-1,-1,1,-1,-1,1,-1,-1,-2,-1,-1,0,0,0,0,0,0,-2,0,-1,0]
36	$I[[2,2,3],[2,2,2]]^3$	[2,2,2,1,1,1,1,1,1,2,-1,-1,2,-1,-1,0,0,0,0,1,-1,0,1,-1,0,1,-1,-3,-1,-1,0,0,0,0,0,0,-2,-1,0,0]
37	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,2,1,1,1,0,-1,1,0,-1,1,-1,0,1,-1,-1,1,-1,-1,1,-1,-1,-2,-2,-2,0,0,0,0,0,0,-2,0,0,0]
38	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,2,1,1,1,0,-1,0,1,-1,0,1,-1,1,-1,-1,1,-1,-1,1,-1,-1,-2,-2,-2,0,0,0,1,1,1,-2,0,1,1]
39	$I[[2,2,3],[2,2,2]]^3$	[2,2,2,2,2,2,2,1,1,1,2,-1,-1,2,-1,-1,2,-1,-1,0,1,-1,0,1,-1,0,1,-1,-3,-3,-1,0,0,0,0,0,0,-2,-1,0,0]
40	$I[[2,2,3],[2,2,2]]^3$	[2,2,2,1,1,1,1,1,1,2,-1,-1,2,-1,-1,2,-1,-1,0,1,-1,0,1,-1,0,1,-1,-3,-1,-1,0,0,0,0,0,0,-2,-1,0,0]
41	$I[[2,2,3],[2,2,2]]^3$	[2,2,2,2,2,2,2,1,1,1,2,-1,-1,0,0,0,0,0,0,0,1,-1,0,1,-1,0,1,-1,-3,-3,-1,0,0,0,0,0,0,-2,-1,0,0]
42	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,2,1,1,1,0,-1,1,0,-1,1,-1,0,1,-1,-1,0,0,0,0,0,0,0,-2,-2,-2,0,0,0,0,0,0,-2,0,0,0]
43	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,2,1,1,1,0,-1,0,1,-1,0,1,-1,1,-1,-1,0,0,0,0,0,0,-2,-2,-2,0,0,0,1,0,0,-2,0,1,1]
44	$I[[2,2,3],[2,2,2]]^1$	[2,2,0,2,2,0,1,1,1,1,-1,1,1,-1,1,1,-1,1,1,-1,-1,1,-1,-1,1,-1,-1,-2,-2,-1,0,0,0,0,0,0,-2,0,-1,0]
45	$I[[2,2,3],[2,2,2]]^3$	[2,2,2,2,2,2,2,1,1,1,2,-1,-1,2,-1,-1,0,0,0,0,1,-1,0,1,-1,0,0,0,-3,-3,-1,0,0,0,0,0,0,-2,-1,0,0]
46	$I[[2,2,3],[2,2,2]]^1$	[2,2,0,2,2,0,1,1,1,1,-1,1,1,-1,1,0,0,0,1,-1,-1,1,-1,-1,0,0,0,-2,-2,-1,0,0,0,0,0,0,-2,0,-1,0]
47	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,0,0,0,1,0,-1,1,0,-1,0,1,-1,1,-1,-1,1,-1,-1,0,0,0,-2,-2,0,0,0,0,1,1,0,-2,0,1,1]
48	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,2,1,1,1,0,-1,1,0,-1,1,-1,0,1,-1,-1,1,-1,-1,0,0,0,-2,-2,-2,0,0,0,0,0,0,-2,0,0,0]
49	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,2,1,1,1,0,-1,0,1,-1,0,1,-1,1,-1,-1,1,-1,-1,0,0,0,-2,-2,-2,0,0,0,1,1,0,-2,0,1,1]
50	$I[[2,2,3],[2,2,2]]^1$	[2,2,0,2,2,0,1,1,1,1,-1,1,1,-1,1,0,0,0,1,-1,-1,1,-1,-1,1,-1,-1,-2,-2,-1,0,0,0,0,0,0,-2,0,-1,0]
51	$I[[2,2,3],[2,2,2]]^1$	[2,2,0,2,2,0,1,1,1,1,-1,1,1,-1,1,1,-1,1,1,-1,-1,1,-1,-1,0,0,0,-2,-2,-1,0,0,0,0,0,0,-2,0,-1,0]
52	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,0,0,0,1,0,-1,1,0,-1,1,-1,0,1,-1,-1,1,-1,-1,1,-1,-1,-2,-2,0,0,0,0,0,0,0,-2,0,0,0]
53	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,0,0,0,1,0,-1,1,0,-1,1,-1,0,1,-1,-1,0,0,0,0,0,0,0,-2,-2,0,0,0,0,0,0,0,-2,0,0,0]
54	$I[[2,2,3],[2,2,2]]^3$	[2,2,2,2,2,2,2,1,1,1,2,-1,-1,2,-1,-1,0,0,0,0,1,-1,0,1,-1,0,1,-1,-3,-3,-1,0,0,0,0,0,0,-2,-1,0,0]
55	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,0,0,0,1,0,-1,1,0,-1,1,-1,0,1,-1,-1,1,-1,-1,0,0,0,-2,-2,0,0,0,0,0,0,0,-2,0,0,0]
56	$I[[2,3],[2,2,2]]$	[1,1,1,1,1,1,1,1,1,1,0,-1,1,0,-1,0,1,-1,0,0,0,0,0,0,0,0,0,0,-1,-1,-1,0,0,0,0,0,0,-1,-1,0,0]
57	$I[[2,3],[2,2,2]]$	[1,1,1,1,1,1,1,1,1,1,1,0,-1,1,0,-1,1,-1,0,0,0,0,0,0,0,0,0,0,-2,-2,-2,0,0,0,0,0,0,-1,0,0,0]
58	$I[[2,3],[2,2,2]]$	[1,1,1,1,1,1,0,0,0,1,0,-1,1,0,-1,1,-1,0,0,0,0,0,0,0,0,0,0,-2,-2,0,0,0,0,0,0,0,-1,0,0,0]
59	$I[[2,3,3],[2,2,2]]^1$	[1,1,0,1,1,0,1,1,0,1,0,1,1,0,1,1,-1,0,1,0,-1,1,0,-1,1,-1,0,-1,-1,-1,-1,-1,0,0,0,0,-2,0,0,0]
60	$I[[2,3,3],[2,2,2]]^1$	[1,1,0,1,1,0,1,1,0,1,0,1,0,1,1,0,0,0,1,0,-1,0,1,-1,0,0,0,-1,-1,-1,-1,-1,0,0,0,0,-1,-1,0,0]
61	$I[[2,3,3],[2,2,2]]^1$	[1,1,0,1,1,0,1,0,1,1,0,1,1,-1,0,1,-1,0,1,0,-1,1,0,-1,0,0,0,-1,-1,-1,-1,0,0,0,0,0,0,-2,0,0,0]
62	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,2,2,1,2,-2,0,1,-1,1,1,-1,1,1,0,-1,1,0,-1,1,-1,0,-2,-2,-2,0,0,0,0,0,0,-3,0,-1,0]
63	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,2,2,1,2,-2,0,1,-1,-1,1,-1,-1,1,0,-1,0,1,-1,0,0,0,-3,-3,-3,0,1,1,0,0,0,-2,0,1,1]
64	$I[[2,3,3],[2,2,2]]^1$	[1,1,0,1,1,0,1,1,0,1,0,1,1,0,1,0,1,1,1,0,-1,1,0,-1,0,1,-1,-1,-1,-1,-1,-1,-1,0,0,0,-1,-1,0,0]
65	$I[[2,3,3],[2,2,2]]^3$	[1,1,0,1,1,0,1,1,0,1,0,1,1,0,1,0,1,1,1,0,-1,0,1,-1,0,1,-1,-1,-1,-1,-1,-1,-1,0,0,0,-1,-1,0,0]
66	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,1,1,1,1,1,1,2,-1,-1,1,0,-1,1,0,-1,0,1,-1,0,1,-1,0,1,-1,-3,-1,-1,0,0,0,0,0,0,-2,-1,0,0]
67	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,1,1,1,1,1,1,2,-1,-1,1,0,-1,1,0,-1,0,1,-1,0,0,0,0,0,0,-3,-1,-1,0,0,0,0,0,0,-2,-1,0,0]
68	$I[[2,3,3],[2,2,2]]^1$	[1,1,0,1,1,0,1,1,0,1,0,1,1,-1,0,1,-1,0,1,0,-1,1,-1,0,1,-1,0,-1,-1,-1,-1,0,0,0,0,0,-2,0,0,0]
69	$I[[2,3,3],[2,2,2]]^1$	[1,1,0,1,1,0,1,1,0,1,0,1,1,-1,0,1,-1,0,1,0,-1,1,-1,0,0,0,0,-1,-1,-1,-1,0,0,0,0,0,-2,0,0,0]
70	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,0,0,0,2,-2,0,1,-1,1,1,-1,1,1,0,-1,1,0,-1,1,-1,0,-2,-2,0,0,0,0,0,0,0,-3,0,-1,0]
71	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,1,1,1,1,1,1,2,-1,-1,1,0,-1,1,0,-1,0,1,-1,0,1,-1,0,0,0,-3,-1,-1,0,0,0,0,0,0,-2,-1,0,0]
72	$I[[2,3,3],[2,2,2]]^1$	[1,1,0,1,1,0,1,0,1,1,1,0,1,1,0,1,0,-1,1,-1,0,1,-1,0,0,0,0,-1,-1,-1,-1,-1,0,0,0,0,-2,0,0,0]
73	$I[[2,3,3],[2,2,2]]^1$	[1,1,0,1,1,0,1,0,1,1,1,0,1,0,-1,0,0,0,1,-1,0,1,-1,0,0,0,0,-1,-1,-1,-1,0,0,0,0,0,-2,0,0,0]
74	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,2,2,1,2,-2,0,2,-2,0,1,-1,-1,1,0,-1,1,0,-1,0,1,-1,-3,-3,-3,0,0,1,0,0,0,-2,0,1,1]
75	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,2,2,1,2,-2,0,2,-2,0,1,-1,-1,1,0,-1,0,1,-1,0,1,-1,-3,-3,-3,0,0,1,0,0,0,-2,0,1,1]
76	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,2,2,1,2,-2,0,2,-2,0,1,-1,-1,1,0,-1,0,1,-1,0,0,0,-3,-3,-3,0,0,1,0,0,0,-2,0,1,1]
77	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,2,2,1,2,-2,0,2,-2,0,1,-1,1,1,0,-1,1,0,-1,1,-1,0,-2,-2,-2,0,0,0,0,0,0,-3,0,-1,0]
78	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,2,2,1,2,-2,0,2,-2,0,1,-1,1,1,0,-1,1,-1,0,1,-1,0,-2,-2,-2,0,0,0,0,0,0,-3,0,-1,0]
79	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,2,2,1,2,-2,0,2,-2,0,1,-1,1,1,0,-1,1,-1,0,0,0,0,-2,-2,-2,0,0,0,0,0,0,-3,0,-1,0]
80	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,2,2,1,2,-2,0,1,-1,-1,1,-1,-1,1,0,-1,1,0,-1,0,1,-1,-3,-3,-3,0,1,1,0,0,0,-2,0,1,1]
81	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,2,2,1,2,-2,0,1,-1,1,1,-1,1,1,0,-1,1,-1,0,1,-1,0,-2,-2,-2,0,0,0,0,0,0,-3,0,-1,0]
82	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,1,0,-1,0,1,-1,1,-1,-1,1,-1,-1,1,-1,-1,-2,-2,-1,0,0,0,1,1,1,-2,0,1,1]

Continued on next page

Table 29 – continued from previous page

Nº	Name	Representative Facet
83	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,1,-1,0,1,-1,0,1,-1,-1,1,-1,-1,1,-1,-1,-2,-2,-1,0,0,0,0,0,0,-2,0,0,0]
84	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,1,0,-1,1,-1,0,1,-1,-1,1,-1,-1,1,-1,-1,-2,-2,-1,0,0,0,0,0,0,-2,0,0,0]
85	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,0,1,-1,0,0,0,1,-1,-1,1,-1,-1,1,-1,-1,-2,-2,-1,0,0,0,1,1,1,-2,0,1,1]
86	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,0,1,-1,0,1,-1,1,-1,-1,1,-1,-1,1,-1,-1,-2,-2,-1,0,0,0,1,1,1,-2,0,1,1]
87	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,1,-1,0,0,0,0,1,-1,-1,1,-1,-1,1,-1,-1,-2,-2,-1,0,0,0,0,0,0,-2,0,0,0]
88	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,1,1,0,1,1,0,1,0,-1,1,0,-1,0,1,-1,1,-1,-1,1,-1,-1,1,-1,-1,-2,-1,-1,0,0,0,1,1,1,-2,0,1,1]
89	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,1,-1,0,0,0,0,1,-1,-1,0,0,0,0,0,0,-2,-2,-1,0,0,0,0,0,0,-2,0,0,0]
90	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,0,1,-1,0,0,0,1,-1,-1,0,0,0,0,0,0,-2,-2,-1,0,0,0,1,0,0,-2,0,1,1]
91	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,1,1,0,1,1,0,1,0,-1,1,0,-1,1,-1,0,1,-1,-1,1,-1,-1,1,-1,-1,-2,-1,-1,0,0,0,0,0,0,-2,0,0,0]
92	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,0,1,-1,0,1,-1,1,-1,-1,0,0,0,0,0,0,-2,-2,-1,0,0,0,1,0,0,-2,0,1,1]
93	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,1,1,0,1,1,0,1,0,-1,1,-1,0,1,-1,0,1,-1,-1,1,-1,-1,1,-1,-1,-2,-1,-1,0,0,0,0,0,0,-2,0,0,0]
94	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,1,-1,0,1,-1,0,1,-1,-1,0,0,0,0,0,0,-2,-2,-1,0,0,0,0,0,0,-2,0,0,0]
95	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,1,0,-1,0,1,-1,1,-1,-1,0,0,0,0,0,0,-2,-2,-1,0,0,0,1,0,0,-2,0,1,1]
96	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,1,0,-1,1,-1,0,1,-1,-1,0,0,0,0,0,0,-2,-2,-1,0,0,0,0,0,0,-2,0,0,0]
97	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,1,1,0,1,1,0,1,0,-1,1,0,-1,1,-1,0,1,-1,-1,0,0,0,0,0,0,-2,-1,-1,0,0,0,0,0,0,-2,0,0,0]
98	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,1,1,0,1,1,0,1,0,-1,1,0,-1,0,1,-1,1,-1,-1,0,0,0,0,0,0,-2,-1,-1,0,0,0,1,0,0,-2,0,1,1]
99	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,1,1,0,1,1,0,1,0,-1,1,-1,0,1,-1,0,1,-1,-1,0,0,0,0,0,0,-2,-1,-1,0,0,0,0,0,0,-2,0,0,0]
100	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,2,2,2,2,1,1,1,2,-1,-1,1,0,-1,0,0,0,0,1,-1,0,0,0,0,0,0,0,-3,-3,-1,0,0,0,0,0,0,0,-2,-1,0,0]
101	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,2,2,2,2,1,1,1,2,-1,-1,1,0,-1,1,0,-1,0,1,-1,0,1,-1,0,1,-1,-3,-3,-1,0,0,0,0,0,0,0,-2,-1,0,0]
102	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,2,2,2,2,1,1,1,2,-1,-1,1,0,-1,0,0,0,0,1,-1,0,1,-1,0,1,-1,-3,-3,-1,0,0,0,0,0,0,0,-2,-1,0,0]
103	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,2,2,2,2,1,1,1,2,-1,-1,2,-1,-1,1,0,-1,0,1,-1,0,0,0,0,0,0,0,-3,-3,-1,0,0,0,0,0,0,0,-2,-1,0,0]
104	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,2,2,2,2,1,1,1,2,-1,-1,1,0,-1,1,0,-1,0,1,-1,0,0,0,0,0,0,0,-3,-3,-1,0,0,0,0,0,0,0,-2,-1,0,0]
105	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,2,2,2,2,1,1,1,2,-1,-1,2,-1,-1,1,0,-1,0,1,-1,0,1,-1,0,1,-1,-3,-3,-1,0,0,0,0,0,0,0,-2,-1,0,0]
106	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,1,1,1,1,1,1,2,-1,-1,2,-1,-1,1,0,-1,0,1,-1,0,0,0,0,0,0,0,-3,-1,-1,0,0,0,0,0,0,0,-2,-1,0,0]
107	$I[[2,3,3],[2,2,2]]^1$	[1,1,0,1,1,0,1,1,0,1,0,1,1,0,1,0,1,0,1,1,1,0,-1,0,1,-1,0,0,0,-1,-1,-1,-1,-1,-1,0,0,0,-1,-1,0,0]
108	$I[[2,3,3],[2,2,2]]^1$	[1,1,0,1,1,0,1,1,0,1,0,1,1,0,1,1,-1,0,1,0,-1,1,-1,0,1,-1,0,-1,-1,-1,-1,-1,0,0,0,0,0,-2,0,0,0]
109	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,1,1,1,1,1,1,2,-1,-1,2,-1,-1,1,0,-1,0,1,-1,0,1,-1,0,1,-1,-3,-1,-1,0,0,0,0,0,0,0,-2,-1,0,0]
110	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,2,2,2,2,1,1,1,2,-1,-1,2,-1,-1,1,0,-1,0,1,-1,0,1,-1,0,0,0,-3,-3,-1,0,0,0,0,0,0,0,-2,-1,0,0]
111	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,2,2,2,2,1,1,1,2,-1,-1,1,0,-1,0,0,0,0,1,-1,0,1,-1,0,0,0,-3,-3,-1,0,0,0,0,0,0,0,-2,-1,0,0]
112	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,2,2,2,2,1,1,1,2,-1,-1,1,0,-1,1,0,-1,0,1,-1,0,1,-1,0,0,0,-3,-3,-1,0,0,0,0,0,0,0,-2,-1,0,0]
113	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,0,0,0,2,-2,0,2,-2,0,1,-1,1,1,0,-1,1,-1,0,1,-1,0,-2,-2,0,0,0,0,0,0,0,-3,0,-1,0]
114	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,0,0,0,2,-2,0,2,-2,0,1,-1,1,1,0,-1,1,-1,0,0,0,0,-2,-2,0,0,0,0,0,0,0,-3,0,-1,0]
115	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,0,0,0,2,-2,0,2,-2,0,1,-1,1,1,0,-1,1,0,-1,1,-1,0,-2,-2,0,0,0,0,0,0,0,-3,0,-1,0]
116	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,0,0,0,2,-2,0,1,-1,1,1,-1,1,1,0,-1,1,-1,0,1,-1,0,-2,-2,0,0,0,0,0,0,0,-3,0,-1,0]
117	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,1,0,-1,0,1,-1,1,-1,-1,1,-1,-1,0,0,0,-2,-2,-1,0,0,0,1,1,0,-2,0,1,1]
118	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,1,-1,0,1,-1,0,1,-1,-1,1,-1,-1,0,0,0,-2,-2,-1,0,0,0,0,0,0,-2,0,0,0]
119	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,1,0,-1,1,-1,0,1,-1,-1,1,-1,-1,0,0,0,-2,-2,-1,0,0,0,0,0,0,-2,0,0,0]
120	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,0,1,-1,0,0,0,1,-1,-1,1,-1,-1,0,0,0,-2,-2,-1,0,0,0,1,1,0,-2,0,1,1]
121	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,0,1,-1,0,1,-1,1,-1,-1,1,-1,-1,0,0,0,-2,-2,-1,0,0,0,1,1,0,-2,0,1,1]
122	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,2,1,1,1,1,0,1,0,-1,1,-1,0,0,0,0,1,-1,-1,1,-1,-1,0,0,0,-2,-2,-1,0,0,0,0,0,0,-2,0,0,0]
123	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,1,1,1,1,1,1,2,-1,-1,2,-1,-1,1,0,-1,0,1,-1,0,1,-1,0,0,0,-3,-1,-1,0,0,0,0,0,0,0,-2,-1,0,0]
124	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,1,1,0,1,1,0,1,0,-1,1,0,-1,0,1,-1,1,-1,-1,1,-1,-1,0,0,0,-2,-1,-1,0,0,0,1,1,0,-2,0,1,1]
125	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,1,1,0,1,1,0,1,0,-1,1,0,-1,1,-1,0,1,-1,-1,1,-1,-1,0,0,0,-2,-1,-1,0,0,0,0,0,0,-2,0,0,0]
126	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,1,1,0,1,1,0,1,0,-1,1,-1,0,1,-1,0,1,-1,-1,1,-1,-1,0,0,0,-2,-1,-1,0,0,0,0,0,0,-2,0,0,0]
127	$I[[2,3,3],[2,2,2]]^1$	[1,1,0,1,1,0,1,0,1,1,1,0,1,0,-1,1,0,-1,1,-1,0,1,-1,0,0,0,0,-1,-1,-1,-1,0,0,0,0,0,-2,0,0,0]
128	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,1,1,1,1,1,1,2,-1,-1,1,0,-1,1,-1,0,0,1,-1,0,1,-1,0,0,0,-3,-1,-1,0,0,0,0,0,0,-2,-1,0,0]
129	$I[[2,3,4],[2,2,2]]^1$	[2,2,2,2,2,2,2,2,2,2,0,-2,2,-2,0,1,-1,-1,1,0,-1,1,0,-1,0,1,-1,-4,-4,-4,0,0,1,0,0,0,-2,0,1,1]
130	$I[[2,3,4],[2,2,2]]^1$	[2,2,2,2,2,2,2,2,2,2,0,-2,1,1,-1,0,2,-2,1,0,-1,1,0,-1,1,-1,0,-2,-2,-2,0,0,0,0,0,0,-3,-2,0,0]
131	$I[[2,3,4],[2,2,2]]^2$	[2,1,1,1,1,0,1,0,1,1,0,-1,1,0,-1,0,1,-1,1,-1,-1,1,-1,-1,1,-1,-1,-2,-1,-1,0,0,0,1,1,1,-2,0,1,1]
132	$I[[2,3,4],[2,2,2]]^2$	[2,1,1,1,1,0,1,0,1,1,0,-1,1,0,-1,0,1,-1,1,-1,-1,0,0,0,0,0,0,-2,-1,-1,0,0,0,1,0,0,-2,0,1,1]
133	$I[[2,3,4],[2,2,2]]^3$	[2,2,2,1,1,1,1,1,1,2,-1,-1,1,0,-1,1,-1,0,0,1,-1,0,1,-1,0,1,-1,-3,-1,-1,0,0,0,0,0,0,-2,-1,0,0]

Continued on next page

Table 29 – continued from previous page

Nº	Name	Representative Facet
134	$I[[2,3,4],[2,2,2]]^4$	[2,2,2,2,2,2,0,0,0,2,0,-2,2,-2,0,1,-1,-1,1,0,-1,1,0,-1,0,1,-1,-4,-4,0,0,0,1,0,0,0,-2,0,1,1]
135	$I[[2,3,4],[2,2,2]]^3$	[2,2,2,2,2,2,1,1,1,2,-1,-1,1,0,-1,1,-1,0,0,1,-1,0,1,-1,0,0,0,-3,-3,-1,0,0,0,0,0,0,-2,-1,0,0]
136	$I[[2,3,4],[2,2,2]]^2$	[2,1,1,1,1,0,1,0,1,1,0,-1,1,0,-1,0,1,-1,1,-1,-1,1,-1,-1,0,0,0,-2,-1,-1,0,0,0,1,1,0,-2,0,1,1]
137	$I[[2,3,4],[2,2,2]]^2$	[2,1,1,1,1,0,1,0,1,1,0,-1,1,0,-1,1,-1,0,1,-1,-1,1,-1,-1,1,-1,-1,-2,-1,-1,0,0,0,0,0,0,-2,0,0,0]
138	$I[[2,3,4],[2,2,2]]^2$	[2,1,1,1,1,0,1,0,1,1,0,-1,1,0,-1,1,-1,0,1,-1,-1,0,0,0,0,0,0,-2,-1,-1,0,0,0,0,0,0,-2,0,0,0]
139	$I[[2,3,4],[2,2,2]]^3$	[2,2,2,2,2,2,1,1,1,2,-1,-1,1,0,-1,1,-1,0,0,1,-1,0,1,-1,0,1,-1,-3,-3,-1,0,0,0,0,0,0,-2,-1,0,0]
140	$I[[2,3,4],[2,2,2]]^2$	[2,1,1,1,1,0,1,0,1,1,0,-1,1,0,-1,1,-1,0,1,-1,-1,1,-1,-1,0,0,0,-2,-1,-1,0,0,0,0,0,0,-2,0,0,0]
141	$I2332$	[2,2,0,1,1,1,1,1,1,2,-2,0,1,-1,1,1,-1,1,0,0,0,0,0,0,0,0,0,0,-2,-1,-1,0,0,0,0,0,0,-2,0,-1,0]
142	$I2332$	[2,2,0,2,2,0,1,1,1,2,-2,0,2,-2,0,1,-1,1,0,0,0,0,0,0,0,0,0,0,-2,-2,-1,0,0,0,0,0,0,-2,0,-1,0]
143	$I2332$	[2,2,0,2,2,0,1,1,1,2,-2,0,1,-1,1,1,-1,1,0,0,0,0,0,0,0,0,0,0,-2,-2,-1,0,0,0,0,0,0,-2,0,-1,0]
144	$I3332$	[2,2,1,2,2,1,1,1,0,2,-2,0,1,-1,-1,1,-1,-1,1,0,-1,0,1,-1,0,0,0,-3,-3,-1,0,1,1,0,0,0,-2,0,1,1]
145	$I3332$	[2,2,1,2,2,1,1,1,1,2,-2,0,1,-1,1,1,-1,1,1,0,-1,1,0,-1,1,-1,0,-2,-2,-1,0,0,0,0,0,0,-3,0,-1,0]
146	$I3332$	[2,2,1,1,1,1,1,1,1,2,-2,0,1,-1,1,1,-1,1,1,0,-1,1,0,-1,1,-1,0,-2,-1,-1,0,0,0,0,0,0,-3,0,-1,0]
147	$I3332$	[2,2,1,2,2,1,1,1,0,2,-2,0,2,-2,0,1,-1,-1,1,0,-1,1,0,-1,0,1,-1,-3,-3,-1,0,0,1,0,0,0,-2,0,1,1]
148	$I3332$	[2,2,1,2,2,1,1,1,0,2,-2,0,2,-2,0,1,-1,-1,1,0,-1,0,1,-1,0,1,-1,-3,-3,-1,0,0,1,0,0,0,-2,0,1,1]
149	$I3332$	[2,2,1,2,2,1,1,1,0,2,-2,0,2,-2,0,1,-1,-1,1,0,-1,0,1,-1,0,0,0,-3,-3,-1,0,0,1,0,0,0,-2,0,1,1]
150	$I3332$	[2,2,1,2,2,1,1,1,0,2,-2,0,1,-1,-1,1,-1,-1,1,0,-1,1,0,-1,0,1,-1,-3,-3,-1,0,1,1,0,0,0,-2,0,1,1]
151	$I3332$	[2,2,1,2,2,1,1,1,1,2,-2,0,2,-2,0,1,-1,1,1,0,-1,1,0,-1,1,-1,0,-2,-2,-1,0,0,0,0,0,0,-3,0,-1,0]
152	$I3332$	[2,2,1,2,2,1,1,1,1,2,-2,0,2,-2,0,1,-1,1,1,0,-1,1,-1,0,1,-1,0,-2,-2,-1,0,0,0,0,0,0,-3,0,-1,0]
153	$I3332$	[2,2,1,2,2,1,1,1,1,2,-2,0,2,-2,0,1,-1,1,1,0,-1,1,-1,0,0,0,0,-2,-2,-1,0,0,0,0,0,0,-3,0,-1,0]
154	$I3332$	[2,2,1,2,2,1,1,1,1,2,-2,0,1,-1,1,1,-1,1,1,0,-1,1,-1,0,1,-1,0,-2,-2,-1,0,0,0,0,0,0,-3,0,-1,0]
155	$I3332$	[2,2,1,1,1,1,1,1,1,2,-2,0,2,-2,0,1,-1,1,1,0,-1,1,-1,0,1,-1,0,-2,-1,-1,0,0,0,0,0,0,-3,0,-1,0]
156	$I3332$	[2,2,1,1,1,1,1,1,1,2,-2,0,2,-2,0,1,-1,1,1,0,-1,1,0,-1,1,-1,0,-2,-1,-1,0,0,0,0,0,0,-3,0,-1,0]
157	$I3332$	[2,2,1,1,1,1,1,1,1,2,-2,0,2,-2,0,1,-1,1,1,0,-1,1,-1,0,0,0,0,-2,-1,-1,0,0,0,0,0,0,-3,0,-1,0]
158	$I3332$	[2,2,1,1,1,1,1,1,1,2,-2,0,1,-1,1,1,-1,1,1,0,-1,1,-1,0,1,-1,0,-2,-1,-1,0,0,0,0,0,0,-3,0,-1,0]

2.15 (4,3,3,2)

Table 30: Representative Facets of the (4,3,3,2) scenario.

Nº	Name	Representative Facet
1	$CHSH$	[1,1,0,1,1,0,1,-1,0,1,-1,0,0,0,0,0,0,0,0,0,0,0,0,0,-1,-1,0,0,0,0,0,0,-1,0,0,0]
2	$I3322$	[1,1,1,1,1,1,1,1,1,-1,1,1,-1,1,-1,0,1,-1,0,0,0,0,0,0,0,0,-1,-1,0,0,0,0,0,0,-2,-1,0,0]
3	$I3322$	[1,1,1,1,1,1,1,1,1,-1,1,1,-1,1,-1,0,1,-1,0,0,0,0,0,0,0,0,-2,-2,-1,-1,0,0,0,0,-1,0,0,0]
4	$I3322$	[1,1,1,1,1,1,1,1,1,-1,0,0,0,1,-1,0,1,-1,0,0,0,0,0,0,0,0,-1,-1,0,0,0,0,0,0,-2,-1,0,0]
5	$I3322$	[1,1,1,1,1,1,1,1,1,-1,1,1,-1,1,-1,1,1,-1,1,1,1,-1,-1,1,-1,-1,-1,-1,0,0,0,0,0,1,1,-3,0,0,1]
6	$I4322^1$	[1,1,1,1,1,1,1,1,1,-1,1,1,-1,1,-1,1,1,-1,1,1,1,-1,-1,1,-1,-1,-2,-2,-1,-1,-1,-1,0,0,-1,0,0,0]
7	$I4322^1$	[1,1,1,1,1,1,1,1,1,-1,0,0,0,1,-1,1,0,0,0,1,-1,-1,1,-1,-1,-1,-1,0,0,0,0,1,1,-3,0,0,1]
8	$I4322^2$	[1,1,1,1,1,1,1,1,0,-1,1,0,-1,1,-1,0,0,0,0,0,0,1,-1,0,0,0,-1,-1,0,0,0,0,0,0,-2,-1,0,0]
9	$I4322^2$	[1,1,1,1,1,1,1,1,0,-1,1,0,-1,1,-1,0,0,0,0,0,0,1,-1,0,0,0,-2,-2,0,0,0,0,0,0,-1,0,1,1]
10	$I4322^1$	[1,1,1,1,1,1,1,1,1,-1,1,1,-1,1,-1,1,1,-1,1,1,1,-1,-1,1,-1,-1,-1,-1,0,0,-1,-1,0,0,-2,-1,0,0]
11	$I4322^1$	[1,1,1,1,1,1,1,1,1,-1,1,1,-1,1,-1,1,1,-1,1,1,1,-1,-1,0,0,0,-1,-1,0,0,0,0,1,0,-3,0,0,1]
12	$I4322^1$	[1,1,1,1,1,1,1,1,1,-1,1,1,-1,1,-1,1,1,-1,1,1,1,-1,-1,0,0,0,-2,-2,0,0,-1,-1,1,0,-2,0,1,1]
13	$I4322^3$	[2,1,1,2,1,1,1,-1,-1,1,-1,-1,1,-1,-1,1,-1,-1,0,1,-1,0,1,-1,-1,-2,-2,1,1,0,0,0,0,-2,0,1,1]
14	$I4322^3$	[2,1,1,2,1,1,1,-1,-1,1,-1,-1,1,-1,-1,0,0,0,0,1,-1,0,1,-1,-2,-2,1,1,0,0,0,0,-2,0,1,1]
15	$I4322^3$	[2,1,1,2,1,1,1,-1,-1,1,-1,-1,1,-1,-1,0,0,0,0,1,-1,0,1,-1,-2,-2,0,0,1,0,0,0,-2,0,1,1]
16	$I4322^3$	[2,1,1,2,1,1,1,-1,-1,0,0,0,1,-1,-1,0,0,0,0,1,-1,0,1,-1,-2,-2,1,0,0,0,0,0,-2,0,1,1]
17	$I4322^2$	[1,1,1,1,1,1,1,1,0,-1,1,0,-1,1,-1,0,1,-1,0,0,1,-1,0,1,-1,-1,-1,0,0,0,0,0,0,-2,-1,0,0]

Continued on next page

Table 30 – continued from previous page

Nº	Name	Representative Facet
18	$I4322^2$	[1,1,1,1,1,1,1,1,0,-1,1,0,-1,1,-1,0,1,-1,0,0,1,-1,0,1,-1,-2,-2,0,0,0,0,0,0,0,-1,0,1,1]
19	$I[[2,2,2,3],[2,2,2]]^1$	[2,2,2,1,1,1,1,1,0,-1,1,0,-1,1,-1,0,0,0,0,0,0,1,-1,0,0,0,-3,-1,0,0,0,0,0,0,0,-2,-1,0,0]
20	$I[[2,2,2,3],[2,2,2]]^2$	[2,2,1,2,2,1,1,1,0,-1,0,1,-1,1,-1,1,1,-1,1,1,-1,-1,0,0,0,-3,-3,0,0,-1,-1,1,0,-2,0,1,1]
21	$I[[2,2,2,3],[2,2,2]]^2$	[2,2,1,2,2,1,1,1,0,-1,1,-1,0,1,-1,1,1,1,-1,1,1,-1,-1,0,0,0,-2,-2,0,0,0,0,0,0,0,-3,0,-1,0]
22	$I[[2,2,2,3],[2,2,2]]^2$	[2,2,1,2,2,1,1,1,0,-1,0,1,-1,1,-1,1,0,0,0,1,-1,-1,1,-1,-1,-3,-3,0,0,-1,0,1,1,-2,0,1,1]
23	$I[[2,2,2,3],[2,2,2]]^2$	[2,2,1,2,2,1,1,1,0,-1,1,-1,0,1,-1,1,0,0,0,1,-1,-1,1,-1,-1,-2,-2,0,0,0,0,0,0,0,-3,0,-1,0]
24	$I[[2,2,2,3],[2,2,2]]^3$	[1,1,1,1,1,1,1,1,1,0,1,0,-1,1,-1,0,0,0,0,0,0,1,-1,0,1,-1,-1,-1,-1,-1,0,0,0,0,0,0,-2,-1,0,0]
25	$I[[2,2,2,3],[2,2,2]]^3$	[1,1,1,1,1,1,1,1,1,0,1,0,1,1,0,-1,1,0,-1,1,-1,0,1,-1,0,-2,-2,-1,-1,0,0,0,0,0,-2,0,0,0]
26	$I[[2,2,2,3],[2,2,2]]^3$	[1,1,1,1,1,1,1,1,1,0,1,0,1,1,0,-1,0,0,0,1,-1,0,0,0,0,0,-2,-2,-1,-1,0,0,0,0,0,-2,0,0,0]
27	$I[[2,2,2,3],[2,2,2]]^3$	[1,1,1,1,1,1,1,1,1,0,1,0,-1,1,-1,0,1,-1,0,0,1,-1,0,0,0,-1,-1,-1,0,0,0,0,0,0,-2,-1,0,0]
28	$I[[2,2,2,3],[2,2,2]]^4$	[2,1,1,1,1,0,1,-1,-1,1,-1,-1,1,-1,-1,0,0,0,0,1,-1,0,0,0,-2,-1,1,1,0,0,0,0,0,-2,0,1,1]
29	$I[[2,2,2,3],[2,2,2]]^4$	[2,1,1,1,1,0,1,-1,-1,1,-1,-1,1,-1,-1,0,0,0,0,1,-1,0,0,0,-2,-1,0,0,1,0,0,0,-2,0,1,1]
30	$I[[2,2,2,3],[2,2,2]]^4$	[2,1,1,1,1,0,1,-1,-1,1,-1,-1,1,-1,-1,0,0,0,0,1,-1,0,1,-1,-2,-1,1,1,0,0,0,0,-2,0,1,1]
31	$I[[2,2,2,3],[2,2,2]]^4$	[2,1,1,1,1,0,1,-1,-1,1,-1,-1,1,-1,-1,0,0,0,0,1,-1,0,1,-1,-2,-1,0,0,1,0,0,0,-2,0,1,1]
32	$I[[2,2,2,3],[2,2,2]]^1$	[2,2,2,1,1,1,1,0,-1,1,0,-1,1,-1,0,1,-1,0,0,1,-1,0,1,-1,-3,-1,0,0,0,0,0,0,0,-2,-1,0,0]
33	$I[[2,2,2,3],[2,2,2]]^2$	[2,2,1,2,2,1,1,0,-1,0,1,-1,1,-1,1,1,-1,1,1,-1,-1,1,-1,-1,-3,-3,0,0,-1,-1,1,1,-2,0,1,1]
34	$I[[2,2,2,3],[2,2,2]]^2$	[2,2,1,2,2,1,1,0,-1,1,-1,0,1,-1,1,1,-1,1,1,-1,-1,1,-1,-1,-2,-2,0,0,0,0,0,0,0,-3,0,-1,0]
35	$I[[2,2,2,3],[2,2,2]]^2$	[2,1,1,1,1,0,1,-1,-1,1,-1,-1,1,-1,-1,1,-1,-1,0,1,-1,0,0,0,-2,-1,1,1,0,0,0,0,-2,0,1,1]
36	$I[[2,2,2,3],[2,2,2]]^2$	[2,1,1,1,1,0,1,-1,-1,1,-1,-1,1,-1,-1,1,-1,-1,0,1,-1,0,1,-1,-2,-1,1,1,0,0,0,0,-2,0,1,1]
37	$I[[2,2,2,3],[2,2,2]]^3$	[1,1,1,1,1,1,1,1,1,0,1,0,1,1,0,-1,1,0,-1,1,-1,0,0,0,0,-2,-2,-1,-1,0,0,0,0,-2,0,0,0]
38	$I[[2,2,2,3],[2,2,2]]^3$	[1,1,1,1,1,1,1,1,1,0,1,0,-1,1,-1,0,1,-1,0,0,1,-1,0,1,-1,-1,-1,-1,0,0,0,0,0,-2,-1,0,0]
39	$I[[2,2,3],[2,2,2]]^1$	[2,2,0,1,1,1,1,-1,1,1,-1,1,1,-1,-1,0,0,0,0,0,0,0,0,0,0,-2,-1,0,0,0,0,0,0,0,-2,0,-1,0]
40	$I[[2,2,3],[2,2,2]]^1$	[2,2,0,1,1,1,1,-1,1,0,0,0,1,-1,-1,1,-1,-1,0,0,0,0,0,0,0,-2,-1,0,0,0,0,0,0,0,-2,0,-1,0]
41	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,1,0,-1,0,1,-1,1,-1,-1,1,-1,-1,0,0,0,0,0,0,0,-2,-2,0,0,1,1,0,0,-2,0,1,1]
42	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,1,0,-1,1,-1,0,1,-1,-1,1,-1,-1,0,0,0,0,0,0,0,-2,-2,0,0,0,0,0,0,0,-2,0,0,0]
43	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,1,0,-1,0,1,-1,1,-1,-1,0,0,0,0,0,0,0,0,0,0,-2,-2,0,0,1,0,0,0,-2,0,1,1]
44	$I[[2,2,3],[2,2,2]]^2$	[2,1,1,2,1,1,1,0,-1,1,-1,0,1,-1,-1,0,0,0,0,0,0,0,0,0,0,-2,-2,0,0,0,0,0,0,0,-2,0,0,0]
45	$I[[2,2,3],[2,2,2]]^1$	[2,2,0,1,1,1,1,-1,1,1,-1,1,1,-1,-1,1,-1,-1,0,0,0,0,0,0,0,-2,-1,0,0,0,0,0,0,0,-2,0,-1,0]
46	$I[[2,2,3],[2,2,2]]^3$	[2,2,2,1,1,1,2,-1,-1,2,-1,-1,0,1,-1,0,1,-1,0,0,0,0,0,0,0,-3,-1,0,0,0,0,0,0,0,-2,-1,0,0]
47	$I[[2,2,3,3],[2,2,2]]^1$	[1,1,1,1,1,1,1,1,1,0,1,0,1,1,0,-1,0,1,-1,1,-1,-1,0,0,0,-2,-2,-1,-1,0,0,1,0,-2,0,1,1]
48	$I[[2,2,3,3],[2,2,2]]^1$	[1,1,1,1,1,1,1,1,1,0,1,0,-1,1,0,-1,1,-1,0,1,-1,1,1,-1,1,-1,-1,-1,-1,0,0,0,0,0,0,-3,0,-1,0]
49	$I[[2,2,3,3],[2,2,2]]^2$	[2,2,2,2,2,2,2,2,0,-2,1,-1,-1,1,0,-1,0,1,-1,1,-1,1,1,-1,1,-4,-4,0,1,0,0,-1,-1,-2,0,1,1]
50	$I[[2,2,3,3],[2,2,2]]^2$	[2,2,2,2,2,2,2,2,0,-2,1,1,-1,1,0,-1,1,-1,0,1,-1,1,1,-1,1,-2,-2,0,0,0,0,0,0,-4,-1,-1,0]
51	$I[[2,2,3,3],[2,2,2]]^2$	[2,2,2,2,2,2,2,2,0,-2,1,1,-1,1,0,-1,1,-1,0,1,-1,1,0,0,0,-2,-2,0,0,0,0,0,0,-4,-1,-1,0]
52	$I[[2,2,3,3],[2,2,2]]^2$	[2,2,2,2,2,2,2,2,0,-2,1,-1,-1,1,0,-1,0,1,-1,1,-1,1,0,0,0,-4,-4,0,1,0,0,-1,0,-2,0,1,1]
53	$I[[2,2,3,3],[2,2,2]]^3$	[2,1,1,2,1,1,1,0,-1,1,-1,0,1,0,-1,0,1,-1,0,1,1,0,1,1,-2,-2,0,0,0,0,-1,-1,-2,-1,0,0]
54	$I[[2,2,3,3],[2,2,2]]^3$	[2,1,1,2,1,1,1,0,-1,1,-1,0,1,0,-1,0,1,-1,0,1,1,0,0,0,-2,-2,0,0,0,0,-1,0,-2,-1,0,0]
55	$I[[2,2,3,3],[2,2,2]]^4$	[2,2,0,1,1,1,1,1,1,0,1,0,-1,1,-1,1,0,0,0,1,-1,0,0,0,0,-2,-1,-1,0,0,0,0,0,0,-3,0,-1,0]
56	$I[[2,2,3,3],[2,2,2]]^4$	[2,2,0,1,1,1,1,1,1,0,1,0,-1,1,-1,1,1,-1,1,1,-1,0,1,-1,0,-2,-1,-1,0,0,0,0,0,0,-3,0,-1,0]
57	$I[[2,2,3,3],[2,2,2]]^5$	[2,2,1,1,1,1,1,1,0,-1,1,-1,0,1,-1,1,0,0,0,1,-1,-1,1,-1,-1,-2,-1,0,0,0,0,0,0,0,-3,0,-1,0]
58	$I[[2,2,3,3],[2,2,2]]^5$	[2,2,1,1,1,1,1,1,0,-1,1,-1,0,1,-1,1,1,1,-1,1,1,-1,-1,0,0,0,-2,-1,0,0,0,0,0,0,0,-3,0,-1,0]
59	$I[[2,2,3,3],[2,2,2]]^1$	[1,1,1,1,1,1,1,1,1,0,1,0,1,1,0,-1,0,1,-1,1,-1,-1,1,-1,-1,-2,-2,-1,-1,0,0,1,1,-2,0,1,1]
60	$I[[2,2,3,3],[2,2,2]]^4$	[2,2,0,1,1,1,1,1,1,0,1,0,-1,1,-1,1,1,-1,1,1,-1,0,0,0,0,-2,-1,-1,0,0,0,0,0,0,-3,0,-1,0]
61	$I[[2,2,3,3],[2,2,2]]^4$	[2,2,0,1,1,1,1,1,1,0,1,0,-1,1,-1,1,1,0,0,0,1,-1,0,1,-1,0,-2,-1,-1,0,0,0,0,0,0,-3,0,-1,0]
62	$I[[2,2,3,3],[2,2,2]]^4$	[2,2,1,1,1,1,1,1,0,-1,1,-1,0,1,-1,1,1,-1,1,1,-1,-1,1,-1,-1,-2,-1,0,0,0,0,0,0,-3,0,-1,0]
63	$I[[2,3],[2,2,2]]^1$	[1,1,1,1,1,1,1,1,0,-1,0,1,-1,0,0,0,0,0,0,0,0,0,0,0,0,0,-1,-1,0,0,0,0,0,0,0,-1,-1,0,0]
64	$I[[2,3],[2,2,2]]^1$	[1,1,1,1,1,1,1,1,0,-1,1,-1,0,0,0,0,0,0,0,0,0,0,0,0,0,-2,-2,0,0,0,0,0,0,0,-1,0,0,0]
65	$I[[2,3,3],[2,2,2]]^1$	[1,1,0,1,1,0,1,0,1,0,1,1,1,0,-1,0,1,-1,0,0,0,0,0,0,0,-1,-1,-1,-1,0,0,0,0,-1,-1,0,0]
66	$I[[2,3,3],[2,2,2]]^1$	[1,1,0,1,1,0,1,0,1,1,-1,0,1,0,-1,1,-1,0,0,0,0,0,0,0,0,-1,-1,-1,0,0,0,0,0,0,-2,0,0,0]
67	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,2,-2,0,1,-1,-1,1,0,-1,0,1,-1,0,0,0,0,0,0,0,-3,-3,0,1,0,0,0,0,0,-2,0,1,1]
68	$I[[2,3,3],[2,2,2]]^2$	[2,2,1,2,2,1,2,-2,0,1,-1,1,1,0,-1,1,-1,0,0,0,0,0,0,0,0,-2,-2,0,0,0,0,0,0,0,-3,0,-1,0]

Continued on next page

Table 30 – continued from previous page

Nº	Name	Representative Facet
69	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,1,1,1,2,-1,-1,1,0,-1,0,1,-1,0,0,0,0,0,0,0,0,0,-3,-1,0,0,0,0,0,0,-2,-1,0,0]
70	$I[[2,3,3],[2,2,2]]^3$	[2,2,2,1,1,1,2,-1,-1,1,0,-1,0,1,-1,0,1,-1,0,0,0,0,0,0,0,-3,-1,0,0,0,0,0,0,-2,-1,0,0]
71	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,1,1,0,1,0,-1,1,-1,0,1,-1,-1,0,0,0,0,0,0,0,0,0,-2,-1,0,0,0,0,0,0,-2,0,0,0]
72	$I[[2,3,3],[2,2,2]]^4$	[2,1,1,1,1,0,1,0,-1,1,-1,0,1,-1,-1,1,-1,-1,0,0,0,0,0,0,-2,-1,0,0,0,0,0,0,-2,0,0,0]
73	$I[[2,3,3,3],[2,2,2]]^1$	[2,2,0,2,2,0,2,-2,0,1,-1,1,1,0,1,0,1,1,1,0,-1,1,-1,0,-2,-2,0,0,-1,-1,0,0,-3,0,-1,0]
74	$I[[2,3,3,3],[2,2,2]]^1$	[2,2,0,2,1,1,1,0,1,1,-1,0,1,0,-1,0,1,-1,1,-1,-1,0,0,0,-2,-2,-1,0,0,0,1,0,-3,0,1,1]
75	$I[[2,3,3,3],[2,2,2]]^1$	[2,2,0,2,1,1,1,0,1,1,-1,0,1,0,-1,0,1,-1,1,-1,-1,-1,1,-1,-1,-2,-2,-1,0,0,0,1,1,-3,0,1,1]
76	$I[[2,3,3,3],[2,2,2]]^2$	[2,1,1,1,1,0,1,0,-1,1,-1,0,1,0,-1,0,1,-1,0,1,1,0,1,1,-2,-1,0,0,0,0,-1,-1,-2,-1,0,0]
77	$I2332$	[2,2,0,1,1,1,2,-2,0,1,-1,1,0,0,0,0,0,0,0,0,0,0,0,0,-2,-1,0,0,0,0,0,0,-2,0,-1,0]
78	$I3332$	[2,2,1,1,1,1,2,-2,0,1,-1,1,1,0,-1,1,-1,0,0,0,0,0,0,0,-2,-1,0,0,0,0,0,0,-3,0,-1,0]
79	$I4332$	[1,1,0,1,0,1,1,1,0,1,0,-1,1,0,1,1,-1,0,1,0,-1,1,-1,0,-1,-1,-1,0,-1,0,0,0,-3,0,0,0]

References

[1] Thomas Cope and Roger Colbeck. Bell inequalities from no-signaling distributions. *Physical Review A*, 100(2):022114, 2019.