

# Data for the Pattern Recognition paper, highlighting the best formulas derived using the OMP regression model.

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## 1 Appendix A. Tables and formulas

Table 2 contains an example of the best formulas: (Tables 3, 4, 5, 6, 7, 8, 9, 10) were extracted from the OMP model and represent the 8 formulas with 49 terms. As can be seen in these two tables, Table 9 is the same as Table 1, demonstrating that our method successfully replicated the formula obtained inductively by Morgenthaler.

Additionally, we aim to demonstrate that this model yields more Euler equations beyond those with 49 terms. Specifically, we identified the following equations.

- Equations with 51 terms: accompanied by Tables 11, 12, 13, and 14.
- Equations with 52 terms: accompanied by Tables 15, 16, 17, and 18.
- Equations with 54 terms: accompanied by 19, 20, 21, and 22.
- Equations with 80 terms: accompanied by 23, 24, 25, and 26.

These equations yield the same Euler number as those with 49 terms, demonstrating the model's versatility and robustness.

Next, we present the formulas and tables for shape descriptors: contact surface, enclosing surface, and volume.

- Enclosing surface with 103 terms: accompanied by Tables 27 and 28.
- Enclosing surface with 103 terms: accompanied by Tables 29 and 30.
- Contact surface with 104 terms: accompanied by Tables 31 and 32.
- Contact surface with 104 terms: accompanied by Tables 33 and 34.
- Volume with 93 terms: accompanied by Tables 35 and 36.

- Volume with 93 terms: accompanied by Tables 37 and 38.

Finally, we demonstrate the feasibility of obtaining formulas using simplexes and tetravoxels.

- Points with 98 terms: accompanied by Tables 39 and 40.
- Points with 98 terms: accompanied by Tables 41 and 42.
- Edges with 113 terms: accompanied by Tables 43 and 44.
- Edges with 113 terms: accompanied by Tables 45 and 46.
- Faces with 114 terms: accompanied by Tables 47 and 48.
- Faces with 114 terms: accompanied by Tables 49 and 50.
- Tetra with 38 terms: accompanied by Tables 51, 52, 53, 54, 55, 56, 57, 58.

In addition, along with shape descriptors, simplexes, and tetra-voxels, the linear regression models demonstrated a remarkable accuracy of 100%. Nevertheless, considering the magnitude of the resulting formulae, the formulas derived from OMP produced the most favorable outcomes in terms of both metric and computational cost.

Table 1: Indexes of the Euler number increments of voxels patterns.

<b>Index</b>	<b><math>\Delta E</math></b>	<b>Index</b>	<b><math>\Delta E</math></b>	<b>Index</b>	<b><math>\Delta E</math></b>	<b>Index</b>	<b><math>\Delta E</math></b>
00000010	1.0	00001001	-1.0	00001011	-1.0	00011000	-1.0
00011001	-1.0	00011010	-1.0	00011011	-1.0	00100001	-1.0
00100011	-1.0	00100100	-1.0	00100101	-1.0	00100110	-1.0
00100111	-1.0	00101000	-1.0	00101001	-2.0	00101010	-1.0
00101011	-2.0	00101100	-1.0	00101101	-1.0	00101110	-1.0
00101111	-1.0	00111000	-1.0	00111001	-1.0	00111010	-1.0
00111011	-1.0	10000001	-1.0	10000011	-1.0	10001001	-1.0
10001011	-1.0	10010100	1.0	10010101	1.0	10010110	1.0
10010111	1.0	10011100	1.0	10011101	1.0	10011110	1.0
10011111	1.0	10100001	-1.0	10100011	-1.0	10101001	-1.0
10101011	-1.0	10110100	1.0	10110101	1.0	10110110	1.0
10110111	1.0	10111100	1.0	10111101	1.0	10111110	1.0
10111111	1.0	Others	0.0				

Table 2: The table compares the number of formulas derived for each descriptor using variable selection regression models. It identifies the most effective formulas with the fewest coefficients and specifies the model in which they were found.

Model	Descriptors and Simplexes	Statistics			$N^{\#}$ formulas found
		Min	Max	Median	
OMP	Euler	<u>49</u>	134	85	111
	ES	<u>103</u>	179	136.5	1286
	CS	<u>104</u>	186	139	1303
	Volume	<u>93</u>	178	126	1010
	Edges	<u>113</u>	204	154.5	1414
	Edges	<u>98</u>	202	145	1331
	Faces	<u>114</u>	194	150	1372
	Tetravoxels	<u>38</u>	38	38	8
ARD	Euler	80	208	167.5	474
	ES	111	254	201	29
	CS	112	221	160	154
	Volume	101	255	206	254
	Points	140	251	212	64
	Edges	163	255	199	28
	Faces	154	255	202	35
	Tetravoxels	<u>38</u>	63	52	12
LassoLars	Euler	80	201	138	320
	ES	105	217	161.5	3065
	CS	105	203	154	3134
	Volume	94	218	158	3022
	Points	115	218	167	3059
	Edges	124	218	173	2597
	Faces	119	218	169.5	2934
	Tetravoxels	<u>38</u>	86	54	466
LassoLarsIC	Euler	80	196	149.5	280
	ES	105	216	161	3065
	CS	105	202	153.5	3142
	Volume	94	218	157.5	3030
	Points	124	220	174	3065
	Edges	124	218	173	2599
	Faces	119	218	169	2929
	Tetravoxels	<u>38</u>	63	51	273

## 1.1 Tables from Euler using OMP Regression model with 49 coefficients

Table 3: Euler, Length: 49, Numbers: Number 0.0: 206, Number -1.0: 30, Number 1.0: 17, Number -2.0: 2

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00010000	1.0	00100001	-1.0	00100100	-1.0	00100101	-1.0
00110001	-1.0	00110100	-1.0	00110101	-1.0	01000001	-1.0
01000010	-1.0	01000011	-1.0	01010001	-1.0	01010010	-1.0
01010011	-1.0	01100000	-1.0	01100001	-2.0	01100010	-1.0
01100011	-1.0	01100100	-1.0	01100101	-1.0	01110000	-1.0
01110001	-2.0	01110010	-1.0	01110011	-1.0	01110100	-1.0
01110101	-1.0	10000001	-1.0	10000110	1.0	10000111	1.0
10010001	-1.0	10010110	1.0	10010111	1.0	10100001	-1.0
10100110	1.0	10100111	1.0	10110001	-1.0	10110110	1.0
10110111	1.0	11000001	-1.0	11000110	1.0	11000111	1.0
11010001	-1.0	11010110	1.0	11010111	1.0	11100001	-1.0
11100110	1.0	11100111	1.0	11110001	-1.0	11110110	1.0
11110111	1.0	Others	0.0				

Table 4: Euler, Length: 49, Numbers: Number 0.0: 206, Number -1.0: 30, Number 1.0: 17, Number -2.0: 2

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00010100	-1.0	00011000	-1.0	00011100	-1.0	00100100	-1.0
00101001	1.0	00101101	1.0	00110100	-1.0	00111001	1.0
00111101	1.0	01000000	1.0	01010100	-1.0	01011000	-1.0
01011100	-1.0	01100100	-1.0	01101001	1.0	01101101	1.0
01110100	-1.0	01111001	1.0	01111101	1.0	10000001	-1.0
10000100	-1.0	10000101	-1.0	10010000	-1.0	10010001	-1.0
10010100	-2.0	10010101	-1.0	10011000	-1.0	10011100	-1.0
10100100	-1.0	10101001	1.0	10101101	1.0	10110100	-1.0
10111001	1.0	10111101	1.0	11000001	-1.0	11000100	-1.0
11000101	-1.0	11010000	-1.0	11010001	-1.0	11010100	-2.0
11010101	-1.0	11011000	-1.0	11011100	-1.0	11100100	-1.0
11101001	1.0	11101101	1.0	11110100	-1.0	11111001	1.0
11111101	1.0	Others	0.0				

Table 5: Euler, Length: 49, Numbers: Number 0.0: 206, Number -1.0: 30, Number 1.0: 17, Number -2.0: 2

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00010110	1.0	00011000	-1.0	00011110	1.0	00100100	-1.0
00101000	-1.0	00101100	-1.0	00110110	1.0	00111000	-1.0
00111110	1.0	01000010	-1.0	01001000	-1.0	01001010	-1.0
01010110	1.0	01011000	-1.0	01011110	1.0	01100000	-1.0
01100010	-1.0	01100100	-1.0	01101000	-2.0	01101010	-1.0
01101100	-1.0	01110110	1.0	01111000	-1.0	01111110	1.0
10000000	1.0	10010110	1.0	10011000	-1.0	10011110	1.0
10100100	-1.0	10101000	-1.0	10101100	-1.0	10110110	1.0
10111000	-1.0	10111110	1.0	11000010	-1.0	11001000	-1.0
11001010	-1.0	11010110	1.0	11011000	-1.0	11011110	1.0
11100000	-1.0	11100010	-1.0	11100100	-1.0	11101000	-2.0
11101010	-1.0	11101100	-1.0	11110110	1.0	11111000	-1.0
11111110	1.0	Others	0.0				

Table 6: Euler, Length: 49, Numbers: Number 0.0: 206, Number -1.0: 30, Number 1.0: 17, Number -2.0: 2

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000110	-1.0	00001000	1.0	00001110	-1.0	00100100	-1.0
00100110	-1.0	00101100	-1.0	00101110	-1.0	01000010	-1.0
01000110	-1.0	01001010	-1.0	01001110	-1.0	01100001	1.0
01100011	1.0	01100101	1.0	01100111	1.0	01101001	1.0
01101011	1.0	01101101	1.0	01101111	1.0	10000001	-1.0
10000010	-1.0	10000011	-1.0	10000100	-1.0	10000101	-1.0
10000110	-2.0	10000111	-1.0	10001001	-1.0	10001010	-1.0
10001011	-1.0	10001100	-1.0	10001101	-1.0	10001110	-2.0
10001111	-1.0	10100100	-1.0	10100110	-1.0	10101100	-1.0
10101110	-1.0	11000010	-1.0	11000110	-1.0	11001010	-1.0
11001110	-1.0	11100001	1.0	11100011	1.0	11100101	1.0
11100111	1.0	11101001	1.0	11101011	1.0	11101101	1.0
11101111	1.0	Others	0.0				

Table 7: Euler, Length: 49, Numbers: Number 0.0: 206, Number -1.0: 30, Number 1.0: 17, Number -2.0: 2

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00010010	-1.0	00011000	-1.0	00011010	-1.0	00100000	1.0
00110010	-1.0	00111000	-1.0	00111010	-1.0	01000010	-1.0
01001001	1.0	01001011	1.0	01010010	-1.0	01011001	1.0
01011011	1.0	01100010	-1.0	01101001	1.0	01101011	1.0
01110010	-1.0	01111001	1.0	01111011	1.0	10000001	-1.0
10000010	-1.0	10000011	-1.0	10010000	-1.0	10010001	-1.0
10010010	-2.0	10010011	-1.0	10011000	-1.0	10011010	-1.0
10100001	-1.0	10100010	-1.0	10100011	-1.0	10110000	-1.0
10110001	-1.0	10110010	-2.0	10110011	-1.0	10111000	-1.0
10111010	-1.0	11000010	-1.0	11001001	1.0	11001011	1.0
11010010	-1.0	11011001	1.0	11011011	1.0	11100010	-1.0
11101001	1.0	11101011	1.0	11110010	-1.0	11111001	1.0
11111011	1.0	Others	0.0				

Table 8: Euler, Length: 49, Numbers: Number 0.0: 206, Number -1.0: 30, Number 1.0: 17, Number -2.0: 2

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000100	1.0	00001001	-1.0	00001101	-1.0	00011000	-1.0
00011001	-1.0	00011100	-1.0	00011101	-1.0	01000001	-1.0
01000010	-1.0	01000011	-1.0	01000101	-1.0	01000110	-1.0
01000111	-1.0	01001000	-1.0	01001001	-2.0	01001010	-1.0
01001011	-1.0	01001100	-1.0	01001101	-2.0	01001110	-1.0
01001111	-1.0	01011000	-1.0	01011001	-1.0	01011100	-1.0
01011101	-1.0	10000001	-1.0	10000101	-1.0	10001001	-1.0
10001101	-1.0	10010010	1.0	10010011	1.0	10010110	1.0
10010111	1.0	10011010	1.0	10011011	1.0	10011110	1.0
10011111	1.0	11000001	-1.0	11000101	-1.0	11001001	-1.0
11001101	-1.0	11010010	1.0	11010011	1.0	11010110	1.0
11010111	1.0	11011010	1.0	11011011	1.0	11011110	1.0
11011111	1.0	Others	0.0				

Table 9: Euler, Length: 49, Numbers: Number 0.0: 206, Number -1.0: 30, Number 1.0: 17, Number -2.0: 2

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000010	1.0	00001001	-1.0	00001011	-1.0	00011000	-1.0
00011001	-1.0	00011010	-1.0	00011011	-1.0	00100001	-1.0
00100011	-1.0	00100100	-1.0	00100101	-1.0	00100110	-1.0
00100111	-1.0	00101000	-1.0	00101001	-2.0	00101010	-1.0
00101011	-2.0	00101100	-1.0	00101101	-1.0	00101110	-1.0
00101111	-1.0	00111000	-1.0	00111001	-1.0	00111010	-1.0
00111011	-1.0	10000001	-1.0	10000011	-1.0	10001001	-1.0
10001011	-1.0	10010100	1.0	10010101	1.0	10010110	1.0
10010111	1.0	10011100	1.0	10011101	1.0	10011110	1.0
10011111	1.0	10100001	-1.0	10100011	-1.0	10101001	-1.0
10101011	-1.0	10110100	1.0	10110101	1.0	10110110	1.0
10110111	1.0	10111100	1.0	10111101	1.0	10111110	1.0
10111111	1.0	Others	0.0				

Table 10: Euler, Length: 49, Numbers: Number 0.0: 206, Number -1.0: 30, Number 1.0: 17, Number -2.0: 2

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000001	1.0	00000110	-1.0	00000111	-1.0	00010010	-1.0
00010011	-1.0	00010100	-1.0	00010101	-1.0	00010110	-2.0
00010111	-2.0	00011000	-1.0	00011001	-1.0	00011010	-1.0
00011011	-1.0	00011100	-1.0	00011101	-1.0	00011110	-1.0
00011111	-1.0	00100100	-1.0	00100101	-1.0	00100110	-1.0
00100111	-1.0	00110100	-1.0	00110101	-1.0	00110110	-1.0
00110111	-1.0	01000010	-1.0	01000011	-1.0	01000110	-1.0
01000111	-1.0	01010010	-1.0	01010011	-1.0	01010110	-1.0
01010111	-1.0	01101000	1.0	01101001	1.0	01101010	1.0
01101011	1.0	01101100	1.0	01101101	1.0	01101110	1.0
01101111	1.0	01111000	1.0	01111001	1.0	01111010	1.0
01111011	1.0	01111100	1.0	01111101	1.0	01111110	1.0
01111111	1.0	Others	0.0				

## 1.2 Tables from Euler using OMP Regression model with 51 coefficients

Table 11: Euler, Length: 51, Numbers: Number 0.0: 204, Number -1.0: 34, Number 1.0: 17

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00010010	-1.0	00011000	-1.0	00011010	-1.0	00100000	1.0
00110010	-1.0	00111000	-1.0	00111010	-1.0	01000001	-1.0
01000010	-1.0	01000011	-1.0	01010001	-1.0	01010010	-1.0
01010011	-1.0	01100001	-1.0	01100010	-1.0	01100011	-1.0
01110001	-1.0	01110010	-1.0	01110011	-1.0	10000001	-1.0
10000110	1.0	10000111	1.0	10010000	-1.0	10010001	-1.0
10010010	-1.0	10010110	1.0	10010111	1.0	10011000	-1.0
10011010	-1.0	10100001	-1.0	10100110	1.0	10100111	1.0
10110000	-1.0	10110001	-1.0	10110010	-1.0	10110110	1.0
10110111	1.0	10111000	-1.0	10111010	-1.0	11000001	-1.0
11000110	1.0	11000111	1.0	11010001	-1.0	11010110	1.0
11010111	1.0	11100001	-1.0	11100110	1.0	11100111	1.0
11110001	-1.0	11110110	1.0	11110111	1.0	Others	0.0

Table 12: Euler, Length: 51, Numbers: Number 0.0: 204, Number -1.0: 34, Number 1.0: 17

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000001	1.0	00000110	-1.0	00000111	-1.0	00010100	-1.0
00010101	-1.0	00010110	-1.0	00010111	-1.0	00011000	-1.0
00011001	-1.0	00011100	-1.0	00011101	-1.0	00100100	-1.0
00100101	-1.0	00100110	-1.0	00100111	-1.0	00110100	-1.0
00110101	-1.0	00110110	-1.0	00110111	-1.0	01000010	-1.0
01000011	-1.0	01000110	-1.0	01000111	-1.0	01001000	-1.0
01001001	-1.0	01001010	-1.0	01001011	-1.0	01001100	-1.0
01001101	-1.0	01001110	-1.0	01001111	-1.0	01011000	-1.0
01011001	-1.0	01011100	-1.0	01011101	-1.0	10010010	1.0
10010011	1.0	10010110	1.0	10010111	1.0	10011010	1.0
10011011	1.0	10011110	1.0	10011111	1.0	11010010	1.0
11010011	1.0	11010110	1.0	11010111	1.0	11011010	1.0
11011011	1.0	11011110	1.0	11011111	1.0	Others	0.0



Table 13: Euler, Length: 51, Numbers: Number 0.0: 204, Number -1.0: 34, Number 1.0: 17

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000110	-1.0	00001000	1.0	00001110	-1.0	00100100	-1.0
00100110	-1.0	00101100	-1.0	00101110	-1.0	01000001	-1.0
01000010	-1.0	01000011	-1.0	01000101	-1.0	01000110	-1.0
01000111	-1.0	01001001	-1.0	01001010	-1.0	01001011	-1.0
01001101	-1.0	01001110	-1.0	01001111	-1.0	10000001	-1.0
10000100	-1.0	10000101	-1.0	10000110	-1.0	10001001	-1.0
10001100	-1.0	10001101	-1.0	10001110	-1.0	10010010	1.0
10010011	1.0	10010110	1.0	10010111	1.0	10011010	1.0
10011011	1.0	10011110	1.0	10011111	1.0	10100100	-1.0
10100110	-1.0	10101100	-1.0	10101110	-1.0	11000001	-1.0
11000101	-1.0	11001001	-1.0	11001101	-1.0	11010010	1.0
11010011	1.0	11010110	1.0	11010111	1.0	11011010	1.0
11011011	1.0	11011110	1.0	11011111	1.0	Others	0.0

Table 14: Euler, Length: 51, Numbers: Number 0.0: 204, Number -1.0: 34, Number 1.0: 17

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00010110	1.0	00011000	-1.0	00011110	1.0	00100100	-1.0
00101000	-1.0	00101100	-1.0	00110110	1.0	00111000	-1.0
00111110	1.0	01000000	1.0	01010110	1.0	01011000	-1.0
01011110	1.0	01100100	-1.0	01101000	-1.0	01101100	-1.0
01110110	1.0	01111000	-1.0	01111110	1.0	10000001	-1.0
10000100	-1.0	10000101	-1.0	10010000	-1.0	10010001	-1.0
10010100	-1.0	10010101	-1.0	10010110	1.0	10011000	-1.0
10011110	1.0	10100100	-1.0	10101000	-1.0	10101100	-1.0
10110110	1.0	10111000	-1.0	10111110	1.0	11000001	-1.0
11000100	-1.0	11000101	-1.0	11010000	-1.0	11010001	-1.0
11010100	-1.0	11010101	-1.0	11010110	1.0	11011000	-1.0
11011110	1.0	11100100	-1.0	11101000	-1.0	11101100	-1.0
11110110	1.0	11111000	-1.0	11111110	1.0	Others	0.0

### 1.3 Tables from Euler using OMP Regression model with 52 coefficients

Table 15: Euler, Length: 52, Numbers: Number 0.0: 203, Number -1.0: 33, Number 1.0: 18, Number -2.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000100	1.0	00001001	-1.0	00001101	-1.0	00011000	-1.0
00011001	-1.0	00011100	-1.0	00011101	-1.0	01000001	-1.0
01000010	-1.0	01000011	-1.0	01000110	-1.0	01001000	-1.0
01001001	-2.0	01001010	-1.0	01001011	-1.0	01001100	-1.0
01001101	-1.0	01001110	-1.0	01011000	-1.0	01011001	-1.0
01011100	-1.0	01011101	-1.0	01100101	1.0	01100111	1.0
01101101	1.0	01101111	1.0	10000001	-1.0	10000101	-1.0
10001001	-1.0	10001010	-1.0	10001011	-1.0	10001101	-1.0
10001110	-1.0	10001111	-1.0	10010010	1.0	10010011	1.0
10010110	1.0	10010111	1.0	11000001	-1.0	11000111	1.0
11001001	-1.0	11001010	-1.0	11001011	-1.0	11001110	-1.0
11010010	1.0	11010011	1.0	11010110	1.0	11010111	1.0
11100101	1.0	11100111	1.0	11101101	1.0	11101111	1.0
Others	0.0						

Table 16: Euler, Length: 52, Numbers: Number 0.0: 203, Number -1.0: 33, Number 1.0: 18, Number -2.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000001	1.0	00000110	-1.0	00000111	-1.0	00010010	-1.0
00010100	-1.0	00010101	-1.0	00010110	-2.0	00010111	-1.0
00011000	-1.0	00011001	-1.0	00011010	-1.0	00011100	-1.0
00011101	-1.0	00011110	-1.0	00100100	-1.0	00100101	-1.0
00100110	-1.0	00100111	-1.0	00110100	-1.0	00110101	-1.0
00110110	-1.0	00110111	-1.0	01000010	-1.0	01000011	-1.0
01000110	-1.0	01000111	-1.0	01001100	-1.0	01001101	-1.0
01001110	-1.0	01001111	-1.0	01010010	-1.0	01010110	-1.0
01011011	1.0	01011100	-1.0	01011101	-1.0	01011110	-1.0
01101000	1.0	01101001	1.0	01101010	1.0	01101011	1.0
01111000	1.0	01111001	1.0	01111010	1.0	01111011	1.0
10010011	1.0	10010111	1.0	10011011	1.0	10011111	1.0
11010011	1.0	11010111	1.0	11011011	1.0	11011111	1.0
Others	0.0						

Table 17: Euler, Length: 52, Numbers: Number 0.0: 203, Number -1.0: 33, Number 1.0: 18, Number -2.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000100	1.0	00001101	-1.0	00011000	-1.0	00011100	-1.0
00011101	-1.0	00101001	1.0	00111001	1.0	01000001	-1.0
01000010	-1.0	01000011	-1.0	01000101	-1.0	01000110	-1.0
01000111	-1.0	01001000	-1.0	01001001	-1.0	01001010	-1.0
01001011	-1.0	01001100	-1.0	01001101	-2.0	01001110	-1.0
01001111	-1.0	01011000	-1.0	01011100	-1.0	01011101	-1.0
01101001	1.0	01111001	1.0	10000001	-1.0	10000101	-1.0
10001101	-1.0	10010000	-1.0	10010001	-1.0	10010100	-1.0
10010101	-1.0	10011000	-1.0	10011100	-1.0	10011101	-1.0
10101001	1.0	10111001	1.0	11000001	-1.0	11000101	-1.0
11001101	-1.0	11010010	1.0	11010011	1.0	11010110	1.0
11010111	1.0	11011001	1.0	11011010	1.0	11011011	1.0
11011110	1.0	11011111	1.0	11101001	1.0	11111001	1.0
Others	0.0						

Table 18: Euler, Length: 52, Numbers: Number 0.0: 203, Number -1.0: 33, Number 1.0: 18, Number -2.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000111	-1.0	00010000	1.0	00010111	-1.0	00100001	-1.0
00100100	-1.0	00100101	-1.0	00100111	-1.0	00110001	-1.0
00110100	-1.0	00110101	-1.0	00110111	-1.0	01000001	-1.0
01000010	-1.0	01000011	-1.0	01000111	-1.0	01010001	-1.0
01010010	-1.0	01010011	-1.0	01010111	-1.0	01100000	-1.0
01100001	-2.0	01100010	-1.0	01100011	-1.0	01100100	-1.0
01100101	-1.0	01100111	-1.0	01110001	-1.0	01110110	1.0
01111000	1.0	01111001	1.0	01111010	1.0	01111011	1.0
01111100	1.0	01111101	1.0	01111110	1.0	01111111	1.0
10000001	-1.0	10000110	1.0	10010001	-1.0	10010110	1.0
10100001	-1.0	10100110	1.0	10110001	-1.0	10110110	1.0
11000001	-1.0	11000110	1.0	11010001	-1.0	11010110	1.0
11100001	-1.0	11100110	1.0	11110001	-1.0	11110110	1.0
Others	0.0						

## 1.4 Tables from Euler using OMP Regression model with 54 coefficients

Table 19: Euler, Length: 54, Numbers: Number 0.0: 201, Number -1.0: 31, Number 1.0: 20, Number -2.0: 3

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000100	1.0	00001000	-1.0	00001001	-1.0	00001101	-1.0
00011000	-2.0	00011001	-1.0	00011100	-1.0	00011101	-1.0
00101000	-1.0	00111000	-1.0	01000010	-1.0	01000110	-1.0
01001000	-2.0	01001001	-1.0	01001010	-1.0	01001100	-1.0
01001101	-1.0	01001110	-1.0	01011000	-2.0	01011001	-1.0
01011100	-1.0	01011101	-1.0	01100001	1.0	01100011	1.0
01100101	1.0	01100111	1.0	01101000	-1.0	01101001	1.0
01101011	1.0	01101101	1.0	01101111	1.0	01111000	-1.0
10000000	1.0	10000100	1.0	10001100	1.0	10011000	-1.0
10101000	-1.0	10111000	-1.0	11000010	-1.0	11000110	-1.0
11001000	-1.0	11001010	-1.0	11001110	-1.0	11011000	-1.0
11100001	1.0	11100011	1.0	11100101	1.0	11100111	1.0
11101000	-1.0	11101001	1.0	11101011	1.0	11101101	1.0
11101111	1.0	11111000	-1.0	Others	0.0		

Table 20: Euler, Length: 54, Numbers: Number 0.0: 201, Number -1.0: 31, Number 1.0: 20, Number -2.0: 3

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000010	1.0	00010000	1.0	00010010	1.0	00100000	-1.0
00100001	-2.0	00100011	-1.0	00100100	-2.0	00100101	-2.0
00100110	-1.0	00100111	-1.0	00101000	-1.0	00101001	-1.0
00101010	-1.0	00101011	-1.0	00101100	-1.0	00101101	-1.0
00101110	-1.0	00101111	-1.0	00110001	-1.0	00110010	1.0
00110100	-1.0	00110101	-1.0	01001001	1.0	01001011	1.0
01011001	1.0	01011011	1.0	01100000	-1.0	01100001	-1.0
01100100	-1.0	01100101	-1.0	01101001	1.0	01101011	1.0
01110000	-1.0	01110001	-1.0	01110100	-1.0	01110101	-1.0
01111001	1.0	01111011	1.0	10000001	-1.0	10000011	-1.0
10010001	-1.0	10010011	-1.0	10100001	-1.0	10100011	-1.0
10110001	-1.0	10110011	-1.0	11001001	1.0	11001011	1.0
11011001	1.0	11011011	1.0	11101001	1.0	11101011	1.0
11111001	1.0	11111011	1.0	Others	0.0		

Table 21: Euler, Length: 54, Numbers: Number 0.0: 201, Number -1.0: 31, Number 1.0: 20, Number -2.0: 3

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000001	-1.0	00000010	1.0	00000100	1.0	00000110	1.0
00000111	1.0	00001001	-2.0	00001011	-1.0	00001101	-1.0
00011000	-1.0	00011001	-1.0	00011010	-1.0	00011011	-1.0
00011100	-1.0	00011101	-1.0	00011110	-1.0	00011111	-1.0
00100001	-1.0	00100011	-1.0	00101001	-1.0	00101011	-1.0
01000001	-1.0	01000101	-1.0	01001001	-1.0	01001101	-1.0
01101000	1.0	01101001	1.0	01101010	1.0	01101011	1.0
01101100	1.0	01101101	1.0	01101110	1.0	01101111	1.0
01111000	1.0	01111001	1.0	01111010	1.0	01111011	1.0
01111100	1.0	01111101	1.0	01111110	1.0	01111111	1.0
10000001	-2.0	10000011	-1.0	10000101	-1.0	10001001	-2.0
10001011	-1.0	10001101	-1.0	10100001	-1.0	10100011	-1.0
10101001	-1.0	10101011	-1.0	11000001	-1.0	11000101	-1.0
11001001	-1.0	11001101	-1.0	Others	0.0		

Table 22: Euler, Length: 54, Numbers: Number 0.0: 201, Number -1.0: 31, Number 1.0: 20, Number -2.0: 3

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000001	1.0	00000010	-1.0	00000110	-1.0	00000111	-1.0
00010010	-2.0	00010011	-1.0	00010110	-1.0	00010111	-1.0
00011000	-1.0	00011001	-1.0	00011010	-1.0	00011011	-1.0
00100000	1.0	00100001	1.0	00100011	1.0	00110010	-1.0
00111000	-1.0	00111001	-1.0	00111010	-1.0	00111011	-1.0
01000010	-2.0	01000011	-1.0	01000110	-1.0	01000111	-1.0
01010010	-2.0	01010011	-1.0	01010110	-1.0	01010111	-1.0
01100010	-1.0	01110010	-1.0	10000010	-1.0	10010010	-1.0
10010100	1.0	10010101	1.0	10010110	1.0	10010111	1.0
10011100	1.0	10011101	1.0	10011110	1.0	10011111	1.0
10100010	-1.0	10110010	-1.0	10110100	1.0	10110101	1.0
10110110	1.0	10110111	1.0	10111100	1.0	10111101	1.0
10111110	1.0	10111111	1.0	11000010	-1.0	11010010	-1.0
11100010	-1.0	11110010	-1.0	Others	0.0		

## 1.5 Tables from Euler using OMP Regression model with 80 coefficients

Table 23: Euler, Length: 80, Numbers: Number 0.0: 175, Number -0.5: 33, Number 0.5: 31, Number -1.0: 16

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000010	0.5	00000100	0.5	00001001	-0.5	00001011	-0.5
00011000	-1.0	00011001	-0.5	00011010	-0.5	00011011	-0.5
00011100	-0.5	00100000	0.5	00100010	0.5	00101011	-0.5
00101101	0.5	00111000	-0.5	00111010	-0.5	00111011	-0.5
00111101	0.5	01000000	-0.5	01000001	-1.0	01000010	-1.0
01000011	-1.0	01000100	-0.5	01000101	-1.0	01000110	-1.0
01000111	-1.0	01001000	-1.0	01001001	-1.0	01001010	-1.0
01001011	-1.0	01001100	-1.0	01001101	-1.0	01001110	-1.0
01001111	-1.0	01011000	-0.5	01011100	-0.5	01101001	0.5
01101101	0.5	01111001	0.5	01111101	0.5	10000001	-1.0
10000011	-0.5	10000101	-0.5	10001001	-0.5	10001011	-0.5
10010000	-0.5	10010001	-0.5	10010110	0.5	10010111	0.5
10011000	-0.5	10011101	0.5	10011110	0.5	10011111	0.5
10100001	-0.5	10100011	-0.5	10101011	-0.5	10101101	0.5
10110000	-0.5	10110001	-0.5	10110010	-0.5	10110011	-0.5
10111000	-0.5	10111010	-0.5	10111011	-0.5	10111101	0.5
11000001	-0.5	11000101	-0.5	11010010	0.5	11010011	0.5
11010110	0.5	11010111	0.5	11011001	0.5	11011010	0.5
11011011	0.5	11011101	0.5	11011110	0.5	11011111	0.5
11101001	0.5	11101101	0.5	11111001	0.5	11111101	0.5
Others	0.0						

Table 24: Euler, Length: 80, Numbers: Number 0.0: 175, Number -0.5: 33, Number 0.5: 31, Number -1.0: 16

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000001	0.5	00000010	0.5	00000011	0.5	00010100	-0.5
00010101	-0.5	00010111	-0.5	00011000	-1.0	00011001	-0.5
00011010	-0.5	00011011	-0.5	00011100	-0.5	00011101	-0.5
00011111	-0.5	00100100	-1.0	00100101	-0.5	00100110	-0.5
00100111	-0.5	00101000	-0.5	00101010	-0.5	00101011	-0.5
00101100	-0.5	00101110	-0.5	00101111	-0.5	00110100	-0.5
00110101	-0.5	00110111	-0.5	00111000	-0.5	00111010	-0.5
00111011	-0.5	00111111	-0.5	01000000	-0.5	01000010	-1.0
01001000	-1.0	01001010	-1.0	01010110	0.5	01011000	-0.5
01011110	0.5	01100000	-1.0	01100010	-1.0	01100100	-0.5
01101000	-1.0	01101001	0.5	01101010	-1.0	01101101	0.5
01110110	0.5	01111001	0.5	01111100	0.5	01111101	0.5
01111110	0.5	10000000	0.5	10010110	0.5	10011000	-0.5
10011110	0.5	10100100	-0.5	10101001	0.5	10101101	0.5
10110110	0.5	10111001	0.5	10111100	0.5	10111101	0.5
10111110	0.5	11000000	-0.5	11000010	-1.0	11001000	-1.0
11001010	-1.0	11010110	0.5	11011000	-0.5	11011110	0.5
11100000	-1.0	11100010	-1.0	11100100	-0.5	11101000	-1.0
11101001	0.5	11101010	-1.0	11101101	0.5	11110110	0.5
11111001	0.5	11111100	0.5	11111101	0.5	11111110	0.5
Others	0.0						

Table 25: Euler, Length: 80, Numbers: Number 0.0: 175, Number -0.5: 33, Number 0.5: 31, Number -1.0: 16

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000001	-0.5	00000110	-0.5	00001000	0.5	00001110	-0.5
00010000	0.5	00010001	-0.5	00100001	-1.0	00100100	-1.0
00100101	-0.5	00100110	-0.5	00101100	-0.5	00101110	-0.5
00110001	-1.0	00110100	-0.5	00110101	-0.5	01000001	-1.0
01000010	-1.0	01000011	-0.5	01000110	-0.5	01001010	-0.5
01001110	-0.5	01010001	-1.0	01010010	-0.5	01010011	-0.5
01100000	-0.5	01100001	-1.0	01100010	-0.5	01100100	-0.5
01100111	0.5	01101001	0.5	01101011	0.5	01101101	0.5
01101111	0.5	01110001	-1.0	01110110	0.5	01110111	0.5
01111000	0.5	01111001	0.5	01111010	0.5	01111011	0.5
01111100	0.5	01111101	0.5	01111110	0.5	01111111	0.5
10000000	0.5	10000001	-1.0	10000111	0.5	10001000	0.5
10001110	-0.5	10010001	-1.0	10010110	0.5	10010111	0.5
10100001	-1.0	10100100	-0.5	10100111	0.5	10101100	-0.5
10101110	-0.5	10110001	-1.0	10110110	0.5	10110111	0.5
11000001	-1.0	11000010	-0.5	11000111	0.5	11001010	-0.5
11001110	-0.5	11010001	-1.0	11010110	0.5	11010111	0.5
11100000	-0.5	11100001	-1.0	11100010	-0.5	11100100	-0.5
11100111	0.5	11101000	-0.5	11101010	-0.5	11101100	-0.5
11101110	-0.5	11110001	-1.0	11110110	0.5	11110111	0.5
Others	0.0						



Table 26: Euler, Length: 80, Numbers: Number 0.0: 175, Number -0.5: 33, Number 0.5: 31, Number -1.0: 16

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000010	0.5	00000100	0.5	00001001	-0.5	00001101	-0.5
00011000	-1.0	00011001	-0.5	00011010	-0.5	00011100	-0.5
00011101	-0.5	00100000	-0.5	00100001	-1.0	00100010	-0.5
00100011	-1.0	00100100	-1.0	00100101	-1.0	00100110	-1.0
00100111	-1.0	00101000	-1.0	00101001	-1.0	00101010	-1.0
00101011	-1.0	00101100	-1.0	00101101	-1.0	00101110	-1.0
00101111	-1.0	00111000	-0.5	00111010	-0.5	01000000	0.5
01000100	0.5	01001011	0.5	01001101	-0.5	01011000	-0.5
01011011	0.5	01011100	-0.5	01011101	-0.5	01101001	0.5
01101011	0.5	01111001	0.5	01111011	0.5	10000001	-1.0
10000011	-0.5	10000101	-0.5	10001001	-0.5	10001101	-0.5
10010000	-0.5	10010001	-0.5	10010110	0.5	10010111	0.5
10011000	-0.5	10011011	0.5	10011110	0.5	10011111	0.5
10100001	-0.5	10100011	-0.5	10110100	0.5	10110101	0.5
10110110	0.5	10110111	0.5	10111001	0.5	10111011	0.5
10111100	0.5	10111101	0.5	10111110	0.5	10111111	0.5
11000001	-0.5	11000101	-0.5	11001011	0.5	11001101	-0.5
11010000	-0.5	11010001	-0.5	11010100	-0.5	11010101	-0.5
11011000	-0.5	11011011	0.5	11011100	-0.5	11011101	-0.5
11101001	0.5	11101011	0.5	11111001	0.5	11111011	0.5
Others	0.0						

## 1.6 Tables from Enclosing Surface using OMP Regression model with 103 coefficients

Table 27: Enclosing\_Surface, Length: 103, Numbers: Number 0.0: 152, Number 6.0: 30, Number 2.0: 26, Number 4.0: 26, Number -2.0: 13, Number 8.0: 4, Number 10.0: 3, Number 12.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000101	2.0	00001000	-2.0	00001100	-2.0	00010000	2.0
00010001	6.0	00010010	2.0	00010011	6.0	00010100	6.0
00010101	8.0	00010110	6.0	00010111	6.0	00011001	6.0
00011010	2.0	00011011	6.0	00011100	4.0	00011101	6.0
00011110	6.0	00011111	6.0	00100000	6.0	00100001	4.0
00100100	6.0	00100101	6.0	00110000	6.0	00110001	10.0
00110011	4.0	00110100	10.0	00110101	12.0	00110110	4.0
00110111	4.0	00111001	6.0	00111011	4.0	00111100	4.0
00111101	6.0	00111110	4.0	00111111	4.0	01000101	2.0
01001000	-2.0	01001100	-2.0	01010101	2.0	01011000	-2.0
01011100	-2.0	01100000	6.0	01100001	4.0	01100100	6.0
01100101	6.0	01110000	6.0	01110001	6.0	01110100	6.0
01110101	8.0	01111001	2.0	01111101	2.0	10000100	2.0
10000101	4.0	10000110	2.0	10000111	2.0	10001000	-2.0
10001100	-2.0	10010001	4.0	10010011	4.0	10010100	6.0
10010101	8.0	10010110	6.0	10010111	6.0	10011000	-2.0
10011001	4.0	10011011	4.0	10011100	2.0	10011101	4.0
10011110	4.0	10011111	4.0	10100000	2.0	10100100	4.0
10100101	4.0	10100110	2.0	10100111	2.0	10110000	2.0
10110001	6.0	10110011	4.0	10110100	8.0	10110101	10.0
10110110	6.0	10110111	6.0	10111001	6.0	10111011	4.0
10111100	4.0	10111101	6.0	10111110	4.0	10111111	4.0
11000101	2.0	11001000	-2.0	11001100	-2.0	11010101	2.0
11011000	-2.0	11011100	-2.0	11100000	2.0	11100100	2.0
11100101	2.0	11110000	2.0	11110001	2.0	11110100	2.0
11110101	4.0	11111001	2.0	11111101	2.0	Others	0.0

Table 28: Enclosing\_Surface, Length: 103, Numbers: Number 0.0: 152, Number 6.0: 30, Number 2.0: 26, Number 4.0: 26, Number -2.0: 13, Number 8.0: 4, Number 10.0: 3, Number 12.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000010	6.0	00000011	2.0	00000110	6.0	00000111	2.0
00001000	2.0	00001010	6.0	00001011	2.0	00001110	6.0
00001111	2.0	00010000	-2.0	00010001	-2.0	00010100	-2.0
00010101	-2.0	00011001	-2.0	00011100	-2.0	00011101	-2.0
00101000	2.0	00111000	2.0	01000001	2.0	01000010	6.0
01000011	4.0	01000110	6.0	01000111	2.0	01001000	6.0
01001001	6.0	01001010	10.0	01001011	8.0	01001110	6.0
01001111	2.0	01010000	-2.0	01010001	-2.0	01010100	-2.0
01010101	-2.0	01011000	4.0	01011001	2.0	01011010	4.0
01011011	4.0	01011100	-2.0	01011101	-2.0	01100001	2.0
01100011	2.0	01101000	6.0	01101001	6.0	01101010	4.0
01101011	6.0	01111000	6.0	01111001	4.0	01111010	4.0
01111011	4.0	10000010	4.0	10000110	4.0	10001000	6.0
10001001	4.0	10001010	10.0	10001011	6.0	10001110	6.0
10001111	2.0	10011000	6.0	10011001	4.0	10011010	6.0
10011011	6.0	10011110	2.0	10011111	2.0	10101000	6.0
10101001	4.0	10101010	4.0	10101011	4.0	10111000	6.0
10111001	4.0	10111010	4.0	10111011	4.0	11000000	2.0
11000001	4.0	11000010	6.0	11000011	4.0	11000100	2.0
11000101	2.0	11000110	6.0	11000111	2.0	11001000	8.0
11001001	8.0	11001010	12.0	11001011	10.0	11001100	2.0
11001101	2.0	11001110	8.0	11001111	4.0	11011000	6.0
11011001	4.0	11011010	6.0	11011011	6.0	11011110	2.0
11011111	2.0	11100001	2.0	11100011	2.0	11101000	6.0
11101001	6.0	11101010	4.0	11101011	6.0	11111000	6.0
11111001	4.0	11111010	4.0	11111011	4.0	Others	0.0

## 1.7 Tables from Enclosing Surface using OMP Regression model with 105 coefficients

Table 29: Enclosing\_Surface, Length: 105, Numbers: Number 0.0: 150, Number 2.0: 33, Number 6.0: 28, Number 4.0: 23, Number -2.0: 12, Number 8.0: 5, Number 10.0: 3, Number 12.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000010	-2.0	00000011	-2.0	00000100	6.0	00000110	4.0
00010010	-2.0	00010011	-2.0	00010100	6.0	00010110	4.0
00100010	-2.0	00100011	-2.0	00100100	6.0	00100110	4.0
00110010	-2.0	00110011	-2.0	00110100	6.0	00110110	4.0
01000000	2.0	01000011	-2.0	01000100	6.0	01000110	4.0
01001000	2.0	01001010	2.0	01010000	2.0	01010001	2.0
01010100	8.0	01010101	2.0	01010110	6.0	01010111	2.0
01011000	2.0	01011001	2.0	01011010	2.0	01011011	2.0
01011100	2.0	01011101	2.0	01011110	2.0	01011111	2.0
01100000	2.0	01100011	-2.0	01100100	6.0	01100110	4.0
01101000	2.0	01101010	2.0	01110010	-2.0	01110011	-2.0
01110100	6.0	01110110	4.0	10000100	6.0	10000110	6.0
10000111	2.0	10010100	6.0	10010110	6.0	10010111	2.0
10100000	2.0	10100001	2.0	10100100	8.0	10100101	2.0
10100110	6.0	10100111	2.0	10110000	2.0	10110001	2.0
10110100	8.0	10110101	2.0	10110110	6.0	10110111	2.0
11000000	6.0	11000001	4.0	11000010	6.0	11000011	4.0
11000100	10.0	11000101	4.0	11000110	10.0	11000111	6.0
11001000	6.0	11001001	4.0	11001010	6.0	11001011	4.0
11001100	4.0	11001101	4.0	11001110	4.0	11001111	4.0
11010100	6.0	11010110	6.0	11010111	2.0	11100000	8.0
11100001	6.0	11100010	6.0	11100011	4.0	11100100	12.0
11100101	6.0	11100110	10.0	11100111	6.0	11101000	6.0
11101001	4.0	11101010	6.0	11101011	4.0	11101100	4.0
11101101	4.0	11101110	4.0	11101111	4.0	11110000	2.0
11110001	2.0	11110100	8.0	11110101	2.0	11110110	6.0
11110111	2.0	Others	0.0				

Table 30: Enclosing\_Surface, Length: 105, Numbers: Number 0.0: 150, Number 2.0: 31, Number 4.0: 29, Number 6.0: 26, Number -2.0: 11, Number 8.0: 5, Number 10.0: 2, Number 12.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00001000	4.0	00001001	4.0	00001010	4.0	00001011	6.0
00010000	2.0	00010010	2.0	00011000	6.0	00011001	4.0
00011010	6.0	00011011	6.0	00101000	6.0	00101001	6.0
00101010	4.0	00101011	6.0	00101100	2.0	00101101	2.0
00110000	4.0	00110001	2.0	00110010	8.0	00110011	2.0
00110100	2.0	00110101	2.0	00110110	6.0	00110111	2.0
00111000	10.0	00111001	8.0	00111010	12.0	00111011	8.0
00111100	4.0	00111101	4.0	00111110	6.0	00111111	2.0
01001000	4.0	01001001	4.0	01001010	4.0	01001011	6.0
01010001	-2.0	01010011	-2.0	01011000	4.0	01011001	2.0
01011010	4.0	01011011	4.0	01101000	6.0	01101001	6.0
01101010	4.0	01101011	6.0	01101100	2.0	01101101	2.0
01110000	2.0	01110010	6.0	01110100	2.0	01110101	2.0
01110110	6.0	01110111	2.0	01111000	8.0	01111001	6.0
01111010	10.0	01111011	6.0	01111100	4.0	01111101	4.0
01111110	6.0	01111111	2.0	10001000	4.0	10001001	4.0
10001010	4.0	10001011	6.0	10010000	2.0	10010010	2.0
10011000	6.0	10011001	4.0	10011010	6.0	10011011	6.0
10101000	4.0	10101001	4.0	10101010	2.0	10101011	4.0
10101110	-2.0	10101111	-2.0	10110000	2.0	10110010	6.0
10110110	4.0	10111000	6.0	10111001	4.0	10111010	8.0
10111011	4.0	10111110	2.0	10111111	-2.0	11001011	2.0
11010001	-2.0	11010011	-2.0	11011001	-2.0	11101010	-2.0
11101110	-2.0	11101111	-2.0	11110000	2.0	11110010	6.0
11110100	2.0	11110101	2.0	11110110	6.0	11110111	2.0
11111000	2.0	11111010	4.0	11111100	2.0	11111101	2.0
11111110	4.0	Others	0.0				

## 1.8 Tables from Contact Surface using OMP Regression model with 104 coefficients

Table 31: Contact\_Surface, Length: 104, Numbers: Number 0.0: 151, Number 1.0: 36, Number 2.0: 26, Number 3.0: 24, Number -1.0: 9, Number 4.0: 6, Number 6.0: 2, Number 5.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000010	1.0	00000110	1.0	00001010	1.0	00010010	1.0
00010110	1.0	00011010	1.0	00100010	1.0	00100110	1.0
00101010	1.0	00110010	3.0	00110110	3.0	00111010	3.0
00111110	2.0	01000000	-1.0	01000110	1.0	01001000	-1.0
01010010	1.0	01010100	1.0	01010110	2.0	01011010	1.0
01011100	1.0	01011110	1.0	01100000	-1.0	01100110	1.0
01101000	-1.0	01110010	3.0	01110100	1.0	01110110	4.0
01111010	3.0	01111100	1.0	01111110	3.0	10000011	-1.0
10000111	-1.0	10001010	1.0	10010011	-1.0	10010111	-1.0
10011010	1.0	10100010	1.0	10100110	1.0	10101010	2.0
10101011	1.0	10101110	1.0	10101111	1.0	10110010	3.0
10110110	3.0	10111010	4.0	10111011	1.0	10111110	3.0
10111111	1.0	11000000	1.0	11000001	2.0	11000010	1.0
11000011	1.0	11000100	2.0	11000101	2.0	11000110	2.0
11000111	1.0	11001000	-1.0	11001100	2.0	11001101	2.0
11001110	2.0	11001111	2.0	11010000	2.0	11010001	2.0
11010010	2.0	11010011	1.0	11010100	3.0	11010101	2.0
11010110	3.0	11010111	1.0	11011010	1.0	11011100	3.0
11011101	2.0	11011110	3.0	11011111	2.0	11100000	2.0
11100001	3.0	11100010	3.0	11100011	3.0	11100100	3.0
11100101	3.0	11100110	4.0	11100111	3.0	11101001	1.0
11101010	2.0	11101011	2.0	11101100	3.0	11101101	3.0
11101110	4.0	11101111	4.0	11110000	2.0	11110001	2.0
11110010	5.0	11110011	2.0	11110100	3.0	11110101	2.0
11110110	6.0	11110111	2.0	11111010	4.0	11111011	1.0
11111100	3.0	11111101	2.0	11111110	6.0	11111111	3.0
Others	0.0						

Table 32: Contact\_Surface, Length: 104, Numbers: Number 0.0: 151, Number 1.0: 30, Number 2.0: 29, Number 3.0: 21, Number -1.0: 12, Number 4.0: 9, Number 6.0: 2, Number 5.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000011	1.0	00000101	1.0	00000111	2.0	00001011	1.0
00001101	1.0	00001111	2.0	00010001	-1.0	00010111	1.0
00011001	-1.0	00011111	1.0	00100101	1.0	00100111	1.0
00101101	1.0	00101111	1.0	00110001	-1.0	00110111	1.0
00111001	-1.0	00111111	1.0	01000011	1.0	01000111	1.0
01001011	1.0	01001111	1.0	01010001	-1.0	01010101	2.0
01010111	3.0	01011001	-1.0	01011101	2.0	01011111	3.0
01110001	-1.0	01110101	2.0	01110111	3.0	01111001	-1.0
01111101	2.0	01111111	3.0	10000011	1.0	10000101	1.0
10000111	2.0	10001000	2.0	10001001	2.0	10001010	3.0
10001011	4.0	10001100	3.0	10001101	4.0	10001110	4.0
10001111	6.0	10010001	-1.0	10010111	1.0	10011000	2.0
10011001	1.0	10011010	3.0	10011011	3.0	10011100	3.0
10011101	3.0	10011110	4.0	10011111	5.0	10100101	1.0
10100111	1.0	10101000	2.0	10101001	2.0	10101100	3.0
10101101	4.0	10101110	1.0	10101111	2.0	10110001	-1.0
10110111	1.0	10111000	2.0	10111001	1.0	10111100	3.0
10111101	3.0	10111110	1.0	10111111	2.0	11000011	1.0
11000111	1.0	11001000	2.0	11001001	2.0	11001010	3.0
11001011	4.0	11001100	2.0	11001101	2.0	11001110	3.0
11001111	4.0	11010001	-1.0	11010101	2.0	11010111	3.0
11011000	2.0	11011001	1.0	11011010	3.0	11011011	3.0
11011100	2.0	11011101	4.0	11011110	3.0	11011111	6.0
11101000	2.0	11101001	2.0	11101100	2.0	11101101	2.0
11110001	-1.0	11110101	2.0	11110111	3.0	11111000	2.0
11111001	1.0	11111100	2.0	11111101	4.0	11111111	3.0
Others	0.0						

## 1.9 Tables from Contact Surface using OMP Regression model with 109 coefficients

Table 33: Contact\_Surface, Length: 109, Numbers: Number 0.0: 146, Number 2.0: 30, Number 1.0: 23, Number -1.0: 16, Number 3.0: 16, Number 4.0: 8, Number 6.0: 6, Number -2.0: 4, Number 5.0: 3, Number -3.0: 2, Number 8.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000010	-1.0	00000011	-1.0	00000110	-1.0	00001100	2.0
00001101	2.0	00001110	2.0	00001111	2.0	00010001	1.0
00010011	2.0	00010101	4.0	00010111	6.0	00011001	1.0
00011010	1.0	00011011	3.0	00011100	2.0	00011101	6.0
00011110	3.0	00011111	8.0	00100011	2.0	00100111	3.0
00101010	-2.0	00101100	2.0	00101101	2.0	00101111	2.0
00110011	2.0	00110101	3.0	00110111	6.0	00111010	-2.0
00111100	2.0	00111101	5.0	00111111	5.0	01000000	1.0
01000001	1.0	01000110	-1.0	01010000	1.0	01010001	2.0
01010010	1.0	01010011	3.0	01010101	2.0	01010111	4.0
01011001	1.0	01011010	1.0	01011011	3.0	01011101	2.0
01011110	1.0	01011111	4.0	01100000	1.0	01100001	1.0
01100010	1.0	01100011	3.0	01100111	3.0	01101010	-2.0
01101110	-2.0	01110011	2.0	01110100	-1.0	01110110	-1.0
01110111	3.0	01111000	-1.0	01111001	-1.0	01111010	-3.0
01111011	-1.0	01111100	-1.0	01111110	-3.0	10000010	-1.0
10000011	-1.0	10000110	-1.0	10010001	1.0	10010011	2.0
10010101	4.0	10010111	6.0	10011001	1.0	10011010	1.0
10011011	3.0	10011101	4.0	10011110	1.0	10011111	6.0
10100011	2.0	10100111	3.0	10101011	2.0	10101111	2.0
10110011	2.0	10110101	3.0	10110111	6.0	10111011	2.0
10111101	3.0	10111111	5.0	11000010	-1.0	11000011	-1.0
11000110	-1.0	11010001	1.0	11010011	2.0	11010101	2.0
11010111	4.0	11011001	1.0	11011010	1.0	11011011	3.0
11011101	2.0	11011110	1.0	11011111	4.0	11100011	2.0
11100111	3.0	11101011	2.0	11101111	2.0	11110011	2.0
11110101	1.0	11110111	4.0	11111011	2.0	11111101	1.0
11111111	3.0	Others	0.0				



Table 34: Contact\_Surface, Length: 109, Numbers: Number 0.0: 146, Number 2.0: 30, Number 1.0: 24, Number -1.0: 14, Number 3.0: 11, Number 4.0: 10, Number 6.0: 6, Number -3.0: 5, Number -2.0: 4, Number 8.0: 3, Number 7.0: 1, Number 5.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000001	-1.0	00000101	-3.0	00001010	2.0	00001011	2.0
00001110	2.0	00001111	2.0	00010011	4.0	00010111	6.0
00011001	1.0	00011010	2.0	00011011	6.0	00011101	3.0
00011110	2.0	00011111	8.0	00100001	-1.0	00100101	-3.0
00110111	2.0	00111001	1.0	00111101	3.0	00111111	2.0
01000001	-1.0	01000100	1.0	01000110	1.0	01000111	3.0
01001010	2.0	01001011	2.0	01001100	-2.0	01001111	2.0
01010000	2.0	01010001	2.0	01010010	2.0	01010011	6.0
01010100	2.0	01010101	2.0	01010110	2.0	01010111	8.0
01011000	2.0	01011001	3.0	01011010	4.0	01011011	8.0
01011100	-1.0	01011101	2.0	01011110	1.0	01011111	7.0
01100001	-1.0	01100100	1.0	01100110	1.0	01100111	3.0
01101100	-2.0	01101110	-2.0	01110111	2.0	01111001	1.0
01111100	-3.0	01111110	-3.0	01111111	-1.0	10000000	1.0
10000010	1.0	10000011	1.0	10000100	1.0	10000101	-2.0
10000110	1.0	10000111	1.0	10010011	4.0	10010111	6.0
10011000	-1.0	10011010	-1.0	10011011	3.0	10011100	-1.0
10011101	2.0	10011110	-1.0	10011111	5.0	10100001	-1.0
10100101	-3.0	10110111	2.0	10111001	1.0	10111101	3.0
10111111	2.0	11000000	1.0	11000010	1.0	11000011	1.0
11000100	2.0	11000101	1.0	11000110	2.0	11000111	4.0
11001100	2.0	11001101	4.0	11001110	2.0	11001111	4.0
11010011	4.0	11010111	6.0	11011000	-1.0	11011010	-1.0
11011011	3.0	11011101	3.0	11011111	6.0	11100001	-1.0
11100100	1.0	11100110	1.0	11100111	3.0	11101100	2.0
11101101	4.0	11101110	2.0	11101111	4.0	11110111	2.0
11111001	1.0	11111100	1.0	11111101	4.0	11111110	1.0
11111111	3.0	Others	0.0				

### 1.10 Tables from Volume using OMP Regression model with 93 coefficients

Table 35: Volume, Length: 93, Numbers: Number 0.0: 162, Number 1.0: 58, Number 2.0: 24, Number 3.0: 7, Number -1.0: 3, Number 4.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00100010	1.0	00100011	1.0	00100110	1.0	00100111	1.0
00101010	1.0	00101011	1.0	00101110	1.0	00101111	1.0
00110010	2.0	00110011	1.0	00110110	2.0	00110111	1.0
00111010	2.0	00111011	1.0	00111110	2.0	00111111	1.0
01000000	1.0	01000001	1.0	01000010	1.0	01000011	1.0
01001000	1.0	01001001	1.0	01001010	1.0	01001011	1.0
01010000	1.0	01010010	1.0	01011000	1.0	01011010	1.0
01100000	1.0	01100001	1.0	01100010	2.0	01100011	2.0
01100110	1.0	01100111	1.0	01101000	1.0	01101001	1.0
01101010	2.0	01101011	2.0	01101110	1.0	01101111	1.0
01110000	1.0	01110010	3.0	01110011	1.0	01110110	2.0
01110111	1.0	01111000	1.0	01111010	3.0	01111011	1.0
01111110	2.0	01111111	1.0	10100010	2.0	10100011	2.0
10100110	2.0	10100111	2.0	10101010	1.0	10101011	1.0
10101110	1.0	10101111	1.0	10110010	3.0	10110011	2.0
10110110	3.0	10110111	2.0	10111010	2.0	10111011	1.0
10111110	2.0	10111111	1.0	11000000	1.0	11000001	1.0
11000010	1.0	11000011	1.0	11010000	1.0	11010010	1.0
11011001	-1.0	11011011	-1.0	11100000	1.0	11100001	1.0
11100010	3.0	11100011	3.0	11100110	2.0	11100111	2.0
11101010	1.0	11101011	1.0	11101110	1.0	11101111	1.0
11110000	1.0	11110010	4.0	11110011	2.0	11110110	3.0
11110111	2.0	11111001	-1.0	11111010	2.0	11111110	2.0
11111111	1.0	Others	0.0				

Table 36: Volume, Length: 93, Numbers: Number 0.0: 162, Number 1.0: 58, Number 2.0: 24, Number 3.0: 7, Number -1.0: 3, Number 4.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00001100	1.0	00001101	1.0	00001110	2.0	00001111	1.0
00011100	1.0	00011101	1.0	00011110	2.0	00011111	1.0
00100000	1.0	00100001	1.0	00100010	1.0	00100100	1.0
00100101	1.0	00100110	1.0	00101000	1.0	00101001	1.0
00101010	1.0	00101100	2.0	00101101	2.0	00101110	3.0
00101111	1.0	00111100	1.0	00111101	1.0	00111110	2.0
00111111	1.0	01001100	1.0	01001101	1.0	01001110	2.0
01001111	1.0	01011100	1.0	01011101	1.0	01011110	2.0
01011111	1.0	01100000	1.0	01100001	1.0	01100010	1.0
01100100	1.0	01100101	1.0	01100110	1.0	01101000	1.0
01101001	1.0	01101010	1.0	01101100	2.0	01101101	2.0
01101110	3.0	01101111	1.0	01111100	1.0	01111101	1.0
01111110	2.0	01111111	1.0	10001100	2.0	10001101	2.0
10001110	3.0	10001111	2.0	10011100	2.0	10011101	2.0
10011110	3.0	10011111	2.0	10100000	1.0	10100001	1.0
10100010	1.0	10100100	1.0	10100101	1.0	10100110	1.0
10101000	1.0	10101001	1.0	10101010	1.0	10101100	3.0
10101101	3.0	10101110	4.0	10101111	2.0	10111100	2.0
10111101	2.0	10111110	3.0	10111111	2.0	11001100	1.0
11001101	1.0	11001110	2.0	11001111	1.0	11011100	1.0
11011101	1.0	11011110	2.0	11011111	1.0	11100011	-1.0
11100111	-1.0	11101011	-1.0	11101100	1.0	11101101	1.0
11101110	2.0	11111100	1.0	11111101	1.0	11111110	2.0
11111111	1.0	Others	0.0				

### 1.11 Tables from Volume using OMP Regression model with 94 coefficients

Table 37: Volume, Length: 94, Numbers: Number 0.0: 161, Number 1.0: 65, Number 2.0: 24, Number 3.0: 5

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00001111	1.0	00011111	1.0	00100000	1.0	00100001	1.0
00100100	1.0	00100101	1.0	00101000	1.0	00101001	1.0
00101100	1.0	00101101	1.0	00101111	1.0	00110000	1.0
00110001	2.0	00110011	1.0	00110100	1.0	00110101	2.0
00110111	1.0	00111000	1.0	00111001	2.0	00111011	1.0
00111100	1.0	00111101	2.0	00111111	2.0	01000100	1.0
01000101	1.0	01000110	1.0	01000111	1.0	01001100	1.0
01001101	1.0	01001110	1.0	01001111	2.0	01010000	1.0
01010010	1.0	01010100	2.0	01010101	1.0	01010110	2.0
01010111	1.0	01011000	1.0	01011010	1.0	01011100	2.0
01011101	1.0	01011110	2.0	01011111	2.0	01100000	1.0
01100001	1.0	01100100	2.0	01100101	2.0	01100110	1.0
01100111	1.0	01101000	1.0	01101001	1.0	01101100	2.0
01101101	2.0	01101110	1.0	01101111	2.0	01110000	2.0
01110001	2.0	01110010	1.0	01110011	1.0	01110100	3.0
01110101	3.0	01110110	2.0	01110111	2.0	01111000	2.0
01111001	2.0	01111010	1.0	01111011	1.0	01111100	3.0
01111101	3.0	01111110	2.0	01111111	3.0	10001111	1.0
10011111	1.0	10101111	1.0	10110001	1.0	10110011	1.0
10110101	1.0	10110111	1.0	10111001	1.0	10111011	1.0
10111101	1.0	10111111	2.0	11001111	1.0	11010000	1.0
11010010	1.0	11010100	1.0	11010110	1.0	11011000	1.0
11011010	1.0	11011100	1.0	11011110	1.0	11011111	1.0
11101111	1.0	11111111	1.0	Others	0.0		

Table 38: Volume, Length: 94, Numbers: Number 0.0: 161, Number 1.0: 64, Number 2.0: 26, Number 3.0: 4

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00001000	1.0	00001001	1.0	00001010	1.0	00001011	2.0
00011000	1.0	00011001	1.0	00011010	1.0	00011011	2.0
00101000	1.0	00101001	1.0	00101010	1.0	00101011	2.0
00110000	1.0	00110001	1.0	00110010	2.0	00110011	1.0
00110100	1.0	00110101	1.0	00110110	2.0	00110111	1.0
00111000	2.0	00111001	2.0	00111010	3.0	00111011	3.0
00111100	1.0	00111101	1.0	00111110	2.0	00111111	1.0
01001000	1.0	01001001	1.0	01001010	1.0	01001011	2.0
01011000	1.0	01011001	1.0	01011010	1.0	01011011	2.0
01101000	1.0	01101001	1.0	01101010	1.0	01101011	2.0
01110000	1.0	01110001	1.0	01110010	2.0	01110011	1.0
01110100	1.0	01110101	1.0	01110110	2.0	01110111	1.0
01111000	2.0	01111001	2.0	01111010	3.0	01111011	3.0
01111100	1.0	01111101	1.0	01111110	2.0	01111111	1.0
10001000	1.0	10001001	1.0	10001010	1.0	10001011	2.0
10011000	1.0	10011001	1.0	10011010	1.0	10011011	2.0
10101000	1.0	10101001	1.0	10101010	1.0	10101011	2.0
10110010	1.0	10110110	1.0	10111000	1.0	10111001	1.0
10111010	2.0	10111011	2.0	10111110	1.0	11001011	1.0
11011011	1.0	11101011	1.0	11110000	1.0	11110001	1.0
11110010	2.0	11110011	1.0	11110100	1.0	11110101	1.0
11110110	2.0	11110111	1.0	11111000	1.0	11111001	1.0
11111010	2.0	11111011	2.0	11111100	1.0	11111101	1.0
11111110	2.0	11111111	1.0	Others	0.0		

## 1.12 Tables from Points using OMP Regression model with 98 coefficients

Table 39: Points, Length: 98, Numbers: Number 0.0: 157, Number 4.0: 47, Number 2.0: 22, Number 8.0: 13, Number -2.0: 6, Number -4.0: 4, Number 6.0: 3, Number 12.0: 2, Number 1.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00001000	4.0	00001001	4.0	00001010	4.0	00001011	4.0
00010000	4.0	00010010	4.0	00011000	8.0	00011001	4.0
00011010	8.0	00011011	4.0	00100010	4.0	00100110	4.0
00101000	8.0	00101001	8.0	00101010	8.0	00101011	4.0
00101100	4.0	00101101	4.0	00101110	4.0	00110000	4.0
00110010	8.0	00110011	2.0	00110110	4.0	00110111	2.0
00111000	12.0	00111001	8.0	00111010	12.0	00111011	6.0
00111100	4.0	00111101	4.0	00111110	4.0	00111111	2.0
01001000	4.0	01001001	4.0	01001010	4.0	01001011	4.0
01011000	4.0	01011001	4.0	01011010	4.0	01011011	4.0
01100010	4.0	01100110	4.0	01101000	8.0	01101001	8.0
01101010	8.0	01101011	4.0	01101100	4.0	01101101	4.0
01101110	4.0	01110010	4.0	01110011	2.0	01110110	4.0
01110111	2.0	01111000	8.0	01111001	8.0	01111010	8.0
01111011	6.0	01111100	4.0	01111101	4.0	01111110	4.0
01111111	2.0	10010000	4.0	10010010	4.0	10011000	4.0
10011010	4.0	10100011	-4.0	10100111	-4.0	10101010	2.0
10101011	-2.0	10101110	2.0	10101111	-2.0	10110000	4.0
10110010	4.0	10110011	-2.0	10110111	-2.0	10111000	4.0
10111010	6.0	10111110	2.0	11100011	-4.0	11100111	-4.0
11101010	2.0	11101011	-2.0	11101110	2.0	11101111	-2.0
11110000	2.0	11110001	2.0	11110010	2.0	11110100	2.0
11110101	2.0	11110110	2.0	11111000	2.0	11111001	2.0
11111010	4.0	11111011	2.0	11111100	2.0	11111101	2.0
11111110	4.0	11111111	1.0	Others	0.0		

Table 40: Points, Length: 98, Numbers: Number 0.0: 157, Number 4.0: 47, Number 2.0: 22, Number 8.0: 13, Number -2.0: 6, Number -4.0: 4, Number 6.0: 3, Number 12.0: 2, Number 1.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000010	4.0	00000110	4.0	00001010	4.0	00001110	4.0
00001111	2.0	00011111	2.0	00101111	2.0	00111111	2.0
01000000	4.0	01000001	4.0	01000010	8.0	01000011	4.0
01000110	4.0	01001000	8.0	01001001	8.0	01001010	12.0
01001011	8.0	01001110	4.0	01001111	2.0	01011000	4.0
01011001	4.0	01011010	4.0	01011011	4.0	01011111	2.0
01100000	4.0	01100001	4.0	01100010	4.0	01100011	4.0
01101000	8.0	01101001	8.0	01101010	8.0	01101011	8.0
01101111	2.0	01111000	4.0	01111001	4.0	01111010	4.0
01111011	4.0	01111111	2.0	10000010	4.0	10000110	4.0
10001000	4.0	10001001	4.0	10001010	8.0	10001011	4.0
10001110	4.0	10001111	2.0	10011000	4.0	10011001	4.0
10011010	4.0	10011011	4.0	10011111	2.0	10101010	2.0
10101011	2.0	10101100	-4.0	10101101	-4.0	10101110	-2.0
10111010	2.0	10111011	2.0	10111100	-4.0	10111101	-4.0
10111110	-2.0	11000000	4.0	11000001	4.0	11000010	8.0
11000011	4.0	11000110	4.0	11001000	8.0	11001001	8.0
11001010	12.0	11001011	8.0	11001100	2.0	11001101	2.0
11001110	6.0	11001111	4.0	11011000	4.0	11011001	4.0
11011010	4.0	11011011	4.0	11011100	2.0	11011101	2.0
11011110	2.0	11011111	4.0	11100000	4.0	11100001	4.0
11100010	4.0	11100011	4.0	11101000	4.0	11101001	4.0
11101010	6.0	11101011	6.0	11101100	-2.0	11101101	-2.0
11101111	2.0	11111010	2.0	11111011	2.0	11111100	-2.0
11111101	-2.0	11111111	1.0	Others	0.0		

### 1.13 Tables from Points using OMP Regression model with 109 coefficients

Table 41: Points, Length: 109, Numbers: Number 0.0: 146, Number 4.0: 49, Number -2.0: 24, Number 8.0: 13, Number 2.0: 13, Number 6.0: 6, Number 12.0: 3, Number 1.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000010	4.0	00000110	4.0	00001010	4.0	00001110	4.0
00010010	4.0	00010110	4.0	00011010	4.0	00011110	4.0
00100010	4.0	00100110	4.0	00101010	4.0	00101110	4.0
01000000	4.0	01000010	8.0	01000110	4.0	01001000	4.0
01001010	8.0	01001110	4.0	01010010	4.0	01010100	-2.0
01010101	-2.0	01010110	2.0	01010111	-2.0	01011010	4.0
01011100	-2.0	01011101	-2.0	01011110	2.0	01011111	-2.0
01100000	4.0	01100010	8.0	01100110	4.0	01101000	4.0
01101010	8.0	01101110	4.0	01110100	-2.0	01110101	-2.0
01110110	-2.0	01110111	-2.0	01111100	-2.0	01111101	-2.0
01111110	-2.0	01111111	-2.0	10000010	8.0	10000011	4.0
10000110	8.0	10000111	4.0	10001010	4.0	10001110	4.0
10010010	8.0	10010011	4.0	10010110	8.0	10010111	4.0
10011010	4.0	10011110	4.0	10100010	4.0	10100110	4.0
10101000	-2.0	10101001	-2.0	10101010	4.0	10101100	-2.0
10101101	-2.0	10101110	4.0	10111000	-2.0	10111001	-2.0
10111100	-2.0	10111101	-2.0	11000000	4.0	11000010	12.0
11000011	4.0	11000110	8.0	11000111	4.0	11001000	8.0
11001001	4.0	11001010	12.0	11001011	4.0	11001100	2.0
11001101	2.0	11001110	6.0	11001111	2.0	11010010	8.0
11010011	4.0	11010100	-2.0	11010101	-2.0	11010110	6.0
11010111	2.0	11011000	4.0	11011001	4.0	11011010	8.0
11011011	4.0	11011110	4.0	11100000	4.0	11100010	8.0
11100110	4.0	11101000	6.0	11101001	2.0	11101010	12.0
11101011	4.0	11101110	6.0	11101111	2.0	11110000	2.0
11110001	2.0	11110010	2.0	11110011	2.0	11111000	4.0
11111001	4.0	11111010	6.0	11111011	6.0	11111110	2.0
11111111	1.0	Others	0.0				



Table 42: Points, Length: 109, Numbers: Number 0.0: 146, Number 2.0: 46, Number 4.0: 28, Number 6.0: 19, Number -2.0: 9, Number 8.0: 5, Number 10.0: 1, Number 1.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000010	6.0	00000011	4.0	00000100	2.0	00000110	8.0
00000111	6.0	00001010	2.0	00001110	2.0	00001111	2.0
00010001	4.0	00010010	6.0	00010011	6.0	00010100	2.0
00010110	8.0	00010111	4.0	00011001	4.0	00011010	2.0
00011011	2.0	00011110	2.0	00100011	-2.0	00100100	2.0
00100110	2.0	00101011	-2.0	00110001	4.0	00110011	2.0
00110100	2.0	00110110	2.0	00111001	4.0	00111011	2.0
01000001	6.0	01000010	6.0	01000011	10.0	01000110	6.0
01000111	6.0	01001001	6.0	01001010	2.0	01001011	6.0
01001101	2.0	01001110	2.0	01001111	4.0	01010000	2.0
01010001	6.0	01010010	8.0	01010011	8.0	01010100	2.0
01010101	2.0	01010110	8.0	01010111	6.0	01011000	2.0
01011001	6.0	01011010	4.0	01011011	4.0	01011100	2.0
01011101	4.0	01011110	4.0	01011111	4.0	01100001	6.0
01100011	4.0	01101001	6.0	01101011	4.0	01101101	2.0
01101111	2.0	01110001	4.0	01110011	2.0	01111001	4.0
01111011	2.0	01111101	2.0	01111111	2.0	10000011	-2.0
10000100	2.0	10000110	2.0	10001011	-2.0	10010001	4.0
10010100	2.0	10010110	2.0	10010111	-2.0	10011001	4.0
10011111	-2.0	10100011	-2.0	10100100	2.0	10100110	2.0
10101011	-2.0	10110001	4.0	10110011	2.0	10110100	2.0
10110110	2.0	10111001	4.0	10111011	2.0	11000001	6.0
11000011	4.0	11001001	6.0	11001011	4.0	11001101	2.0
11001111	2.0	11010001	4.0	11010111	-2.0	11011001	4.0
11011101	2.0	11100001	6.0	11100011	4.0	11101001	6.0
11101011	4.0	11101101	2.0	11101111	2.0	11110001	4.0
11110011	2.0	11111001	4.0	11111011	2.0	11111101	2.0
11111111	1.0	Others	0.0				

### 1.14 Tables from Edges using OMP Regression model with 113 coefficients

Table 43: Edges, Length: 113, Numbers: Number 0.0: 142, Number 8.0: 22, Number 12.0: 19, Number 4.0: 15, Number 5.0: 13, Number -3.0: 6, Number -4.0: 6, Number 16.0: 4, Number 13.0: 4, Number 20.0: 4, Number 10.0: 4, Number 1.0: 4, Number 24.0: 3, Number -8.0: 1, Number 17.0: 1, Number 29.0: 1, Number -11.0: 1, Number -12.0: 1, Number 2.0: 1, Number -9.0: 1, Number 6.0: 1, Number 3.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000001	8.0	00000011	8.0	00001001	8.0	00010001	8.0
00010011	8.0	00011001	8.0	00100001	12.0	00100011	8.0
00100101	4.0	00101001	12.0	00101101	4.0	00110001	8.0
00110011	5.0	00110111	-3.0	00111001	8.0	00111011	-3.0
00111111	-3.0	01000001	8.0	01000011	8.0	01001001	8.0
01011011	-8.0	01100001	12.0	01100011	8.0	01100101	4.0
01101001	12.0	01101101	4.0	01110011	-3.0	01110111	-3.0
01111011	-11.0	01111111	-3.0	10000000	4.0	10000001	12.0
10000010	4.0	10000011	12.0	10001001	8.0	10010000	4.0
10010001	12.0	10010010	4.0	10010011	12.0	10011001	8.0
10100000	8.0	10100001	20.0	10100010	16.0	10100011	24.0
10100100	4.0	10100101	8.0	10100110	12.0	10100111	12.0
10101000	4.0	10101001	16.0	10101010	5.0	10101011	5.0
10101100	4.0	10101101	8.0	10101110	5.0	10101111	5.0
10110000	16.0	10110001	24.0	10110010	24.0	10110011	29.0
10110100	12.0	10110101	12.0	10110110	20.0	10110111	17.0
10111000	12.0	10111001	20.0	10111010	13.0	10111011	10.0
10111100	12.0	10111101	12.0	10111110	13.0	10111111	10.0
11000001	8.0	11000011	8.0	11001000	-4.0	11001001	4.0
11001010	-4.0	11001011	-4.0	11011000	-4.0	11011001	-4.0
11011010	-4.0	11011011	-12.0	11100000	4.0	11100001	16.0
11100010	12.0	11100011	20.0	11100100	4.0	11100101	8.0
11100110	12.0	11100111	12.0	11101001	12.0	11101010	1.0
11101011	1.0	11101100	4.0	11101101	8.0	11101110	5.0
11101111	5.0	11110000	5.0	11110001	5.0	11110010	13.0
11110011	10.0	11110100	5.0	11110101	5.0	11110110	13.0
11110111	10.0	11111000	1.0	11111001	1.0	11111010	2.0
11111011	-9.0	11111100	5.0	11111101	5.0	11111110	6.0
11111111	3.0	Others	0.0				

Table 44: Edges, Length: 113, Numbers: Number 0.0: 142, Number 8.0: 22, Number 12.0: 19, Number 4.0: 15, Number 5.0: 13, Number -4.0: 6, Number -3.0: 6, Number 16.0: 4, Number 20.0: 4, Number 1.0: 4, Number 10.0: 4, Number 13.0: 4, Number 24.0: 3, Number 2.0: 1, Number -8.0: 1, Number 6.0: 1, Number -12.0: 1, Number 29.0: 1, Number 17.0: 1, Number -11.0: 1, Number -9.0: 1, Number 3.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000010	4.0	00001011	-4.0	00010010	4.0	00011011	-4.0
00100010	8.0	00100011	4.0	00100110	4.0	00100111	4.0
00101010	4.0	00101110	4.0	00101111	4.0	00110010	16.0
00110011	5.0	00110110	12.0	00110111	5.0	00111010	12.0
00111011	1.0	00111110	12.0	00111111	5.0	01000000	8.0
01000001	8.0	01000010	12.0	01000011	8.0	01001000	8.0
01001001	8.0	01001010	8.0	01001011	4.0	01010000	8.0
01010010	12.0	01011000	8.0	01011010	8.0	01011011	-4.0
01100000	12.0	01100001	12.0	01100010	20.0	01100011	16.0
01100100	4.0	01100101	4.0	01100110	8.0	01100111	8.0
01101000	12.0	01101001	12.0	01101010	16.0	01101011	12.0
01101100	4.0	01101101	4.0	01101110	8.0	01101111	8.0
01110000	8.0	01110010	24.0	01110011	5.0	01110110	12.0
01110111	5.0	01111000	8.0	01111010	20.0	01111011	1.0
01111110	12.0	01111111	5.0	10000010	4.0	10001011	-4.0
10010010	4.0	10011011	-4.0	10100010	16.0	10100011	12.0
10100110	12.0	10100111	12.0	10101010	5.0	10101011	1.0
10101110	5.0	10101111	5.0	10110010	24.0	10110011	13.0
10110110	20.0	10110111	13.0	10111010	13.0	10111011	2.0
10111110	13.0	10111111	6.0	11000000	8.0	11000001	8.0
11000010	12.0	11000011	8.0	11001011	-4.0	11010000	8.0
11010010	12.0	11011001	-8.0	11011011	-12.0	11100000	8.0
11100001	8.0	11100010	24.0	11100011	20.0	11100110	12.0
11100111	12.0	11101010	5.0	11101011	1.0	11101110	5.0
11101111	5.0	11110000	5.0	11110001	-3.0	11110010	29.0
11110011	10.0	11110100	-3.0	11110101	-3.0	11110110	17.0
11110111	10.0	11111000	-3.0	11111001	-11.0	11111010	10.0
11111011	-9.0	11111100	-3.0	11111101	-3.0	11111110	10.0
11111111	3.0	Others	0.0				

### 1.15 Tables from Edges using OMP Regression model with 114 coefficients

Table 45: Edges, Length: 114, Numbers: Number 0.0: 141, Number 8.0: 25, Number 12.0: 23, Number 4.0: 17, Number 5.0: 13, Number 1.0: 6, Number -3.0: 5, Number -4.0: 5, Number 16.0: 3, Number 13.0: 3, Number 10.0: 3, Number 3.0: 2, Number 17.0: 2, Number 20.0: 2, Number 9.0: 1, Number 24.0: 1, Number -2.0: 1, Number 2.0: 1, Number 6.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000001	8.0	00000011	8.0	00000101	8.0	00000111	8.0
00001001	12.0	00001011	8.0	00001101	8.0	00001111	5.0
00011001	4.0	00011111	-3.0	00100001	8.0	00100101	8.0
00101001	12.0	00101101	8.0	00101111	-3.0	00111001	4.0
00111111	-3.0	01000001	8.0	01000011	8.0	01000101	12.0
01000111	12.0	01001001	12.0	01001011	8.0	01001101	12.0
01001111	9.0	01011001	4.0	01011111	-3.0	01100001	8.0
01100101	12.0	01100111	4.0	01101001	12.0	01101101	12.0
01101111	1.0	01111001	4.0	01111111	-3.0	10000000	4.0
10000001	12.0	10000010	4.0	10000011	12.0	10000100	4.0
10000101	12.0	10000110	4.0	10000111	12.0	10001000	8.0
10001001	20.0	10001010	4.0	10001011	12.0	10001100	16.0
10001101	24.0	10001110	12.0	10001111	17.0	10011000	4.0
10011001	8.0	10011100	12.0	10011101	12.0	10011110	8.0
10011111	5.0	10100001	8.0	10100101	8.0	10101000	4.0
10101001	16.0	10101010	5.0	10101011	5.0	10101100	12.0
10101101	20.0	10101110	13.0	10101111	10.0	10111000	4.0
10111001	8.0	10111010	5.0	10111011	5.0	10111100	12.0
10111101	12.0	10111110	13.0	10111111	10.0	11000001	8.0
11000011	8.0	11000101	12.0	11000111	12.0	11001000	4.0
11001001	16.0	11001011	8.0	11001100	5.0	11001101	17.0
11001110	1.0	11001111	10.0	11011000	4.0	11011001	8.0
11011100	5.0	11011101	5.0	11011110	1.0	11011111	-2.0
11100000	-4.0	11100001	4.0	11100010	-4.0	11100011	-4.0
11100100	-4.0	11100101	8.0	11100110	-4.0	11101001	12.0
11101010	1.0	11101011	1.0	11101100	1.0	11101101	13.0
11101110	2.0	11101111	3.0	11111000	4.0	11111001	8.0
11111010	5.0	11111011	5.0	11111100	5.0	11111101	5.0
11111110	6.0	11111111	3.0	Others	0.0		

Table 46: Edges, Length: 114, Numbers: Number 0.0: 141, Number 8.0: 25, Number 12.0: 23, Number 4.0: 17, Number 5.0: 13, Number 1.0: 6, Number -3.0: 5, Number -4.0: 5, Number 16.0: 3, Number 10.0: 3, Number 13.0: 3, Number 3.0: 2, Number 17.0: 2, Number 20.0: 2, Number 9.0: 1, Number 24.0: 1, Number -2.0: 1, Number 2.0: 1, Number 6.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000001	8.0	00000011	8.0	00001001	8.0	00001011	12.0
00010001	8.0	00010011	8.0	00011001	8.0	00011011	12.0
00100001	12.0	00100011	8.0	00100101	4.0	00101001	12.0
00101011	12.0	00101101	4.0	00110001	8.0	00110011	5.0
00110111	-3.0	00111001	8.0	00111011	9.0	00111111	-3.0
01000001	8.0	01000011	8.0	01001001	8.0	01001011	12.0
01011011	4.0	01100001	12.0	01100011	8.0	01100101	4.0
01101001	12.0	01101011	12.0	01101101	4.0	01110011	-3.0
01110111	-3.0	01111011	1.0	01111111	-3.0	10000000	4.0
10000001	12.0	10000010	4.0	10000011	12.0	10001001	8.0
10001011	12.0	10010000	4.0	10010001	12.0	10010010	4.0
10010011	12.0	10011001	8.0	10011011	12.0	10100000	8.0
10100001	20.0	10100010	16.0	10100011	24.0	10100100	4.0
10100101	8.0	10100110	12.0	10100111	12.0	10101000	4.0
10101001	16.0	10101010	5.0	10101011	17.0	10101100	4.0
10101101	8.0	10101110	5.0	10101111	5.0	10110000	4.0
10110001	12.0	10110010	12.0	10110011	17.0	10110110	8.0
10110111	5.0	10111001	8.0	10111010	1.0	10111011	10.0
10111110	1.0	10111111	-2.0	11000001	8.0	11000011	8.0
11001000	-4.0	11001001	4.0	11001010	-4.0	11001011	8.0
11011000	-4.0	11011001	-4.0	11011010	-4.0	11100000	4.0
11100001	16.0	11100010	12.0	11100011	20.0	11100100	4.0
11100101	8.0	11100110	12.0	11100111	12.0	11101001	12.0
11101010	1.0	11101011	13.0	11101100	4.0	11101101	8.0
11101110	5.0	11101111	5.0	11110000	5.0	11110001	5.0
11110010	13.0	11110011	10.0	11110100	5.0	11110101	5.0
11110110	13.0	11110111	10.0	11111000	1.0	11111001	1.0
11111010	2.0	11111011	3.0	11111100	5.0	11111101	5.0
11111110	6.0	11111111	3.0	Others	0.0		

## 1.16 Tables from Faces using OMP Regression model with 114 coefficients

Table 47: Faces, Length: 114, Numbers: Number 0.0: 141, Number 5.0: 24, Number 4.0: 22, Number 9.0: 15, Number 6.0: 11, Number -1.0: 11, Number 1.0: 9, Number 3.0: 8, Number 8.0: 5, Number 10.0: 4, Number 11.0: 1, Number 15.0: 1, Number 14.0: 1, Number 13.0: 1, Number 12.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000100	1.0	00000110	1.0	00001100	5.0	00001101	4.0
00001110	1.0	00001111	4.0	00011100	4.0	00011101	4.0
00011111	4.0	00100000	5.0	00100001	5.0	00100010	5.0
00100100	6.0	00100101	5.0	00100110	6.0	00101000	6.0
00101001	6.0	00101010	5.0	00101100	11.0	00101101	10.0
00101110	6.0	00101111	4.0	00111000	1.0	00111001	1.0
00111100	5.0	00111101	5.0	00111111	4.0	01000101	-1.0
01000111	-1.0	01001100	4.0	01001101	3.0	01001111	3.0
01011100	4.0	01011101	4.0	01011111	4.0	01100000	5.0
01100001	5.0	01100010	5.0	01100100	5.0	01100101	4.0
01100110	5.0	01100111	-1.0	01101000	6.0	01101001	6.0
01101010	5.0	01101100	10.0	01101101	9.0	01101110	5.0
01101111	3.0	01111000	1.0	01111001	1.0	01111100	5.0
01111101	5.0	01111111	4.0	10000100	1.0	10000110	1.0
10001100	10.0	10001101	9.0	10001110	6.0	10001111	9.0
10011100	9.0	10011101	9.0	10011110	5.0	10011111	9.0
10100000	5.0	10100001	5.0	10100010	5.0	10100100	6.0
10100101	5.0	10100110	6.0	10101000	5.0	10101001	5.0
10101010	4.0	10101011	-1.0	10101100	15.0	10101101	14.0
10101110	10.0	10101111	8.0	10111010	-1.0	10111011	-1.0
10111100	9.0	10111101	9.0	10111110	4.0	10111111	8.0
11000101	-1.0	11000111	-1.0	11001100	4.0	11001101	3.0
11001111	3.0	11011100	4.0	11011101	4.0	11011111	4.0
11100000	9.0	11100001	9.0	11100010	9.0	11100011	4.0
11100100	9.0	11100101	8.0	11100110	9.0	11100111	3.0
11101000	9.0	11101001	9.0	11101010	8.0	11101011	3.0
11101100	13.0	11101101	12.0	11101110	8.0	11101111	6.0
11111010	-1.0	11111011	-1.0	11111100	4.0	11111101	4.0
11111110	-1.0	11111111	3.0	Others	0.0		

Table 48: Faces, Length: 114, Numbers: Number 0.0: 141, Number 5.0: 24, Number 4.0: 22, Number 9.0: 15, Number 6.0: 11, Number -1.0: 11, Number 1.0: 9, Number 3.0: 8, Number 8.0: 5, Number 10.0: 4, Number 11.0: 1, Number 13.0: 1, Number 15.0: 1, Number 14.0: 1, Number 12.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00001000	5.0	00001001	6.0	00001010	5.0	00001011	5.0
00001100	5.0	00001101	5.0	00001110	5.0	00001111	4.0
00010000	1.0	00010001	5.0	00010010	1.0	00010011	10.0
00010100	1.0	00010101	1.0	00010110	1.0	00010111	6.0
00011000	6.0	00011001	11.0	00011010	6.0	00011011	15.0
00011100	6.0	00011101	6.0	00011110	6.0	00011111	10.0
00101000	5.0	00101001	6.0	00101010	9.0	00101011	9.0
00101100	5.0	00101101	5.0	00101110	9.0	00101111	8.0
00110001	4.0	00110011	4.0	00111000	5.0	00111001	10.0
00111010	9.0	00111011	13.0	00111100	5.0	00111101	5.0
00111110	9.0	00111111	8.0	01001000	5.0	01001001	6.0
01001010	5.0	01001011	5.0	01001111	-1.0	01010001	4.0
01010011	9.0	01010101	4.0	01010111	9.0	01011000	5.0
01011001	10.0	01011010	5.0	01011011	14.0	01011101	4.0
01011111	8.0	01101000	5.0	01101001	6.0	01101010	9.0
01101011	9.0	01101110	4.0	01101111	3.0	01110000	-1.0
01110001	3.0	01110010	-1.0	01110011	3.0	01110100	-1.0
01110101	3.0	01110110	-1.0	01110111	3.0	01111000	4.0
01111001	9.0	01111010	8.0	01111011	12.0	01111100	-1.0
01111101	3.0	01111110	3.0	01111111	6.0	10001001	1.0
10001111	-1.0	10010001	4.0	10010011	9.0	10010111	5.0
10011001	5.0	10011011	9.0	10011111	4.0	10101001	1.0
10101111	-1.0	10110001	4.0	10110011	4.0	10111001	5.0
10111011	4.0	10111111	-1.0	11001001	1.0	11001111	-1.0
11010001	4.0	11010011	9.0	11010101	4.0	11010111	9.0
11011001	5.0	11011011	9.0	11011101	4.0	11011111	8.0
11101001	1.0	11101111	-1.0	11110001	4.0	11110011	4.0
11110101	4.0	11110111	4.0	11111001	5.0	11111011	4.0
11111101	4.0	11111111	3.0	Others	0.0		

### 1.17 Tables from Faces using OMP Regression model with 116 coefficients

Table 49: Faces, Length: 116, Numbers: Number 0.0: 139, Number 4.0: 24, Number 5.0: 23, Number -1.0: 14, Number 9.0: 10, Number 1.0: 8, Number 8.0: 8, Number 6.0: 8, Number 10.0: 5, Number 14.0: 3, Number 3.0: 3, Number 15.0: 2, Number -5.0: 2, Number 13.0: 2, Number 11.0: 1, Number 19.0: 1, Number -6.0: 1, Number -2.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00001000	1.0	00001001	1.0	00001010	5.0	00001011	10.0
00001110	4.0	00001111	4.0	00010000	5.0	00010001	5.0
00010010	6.0	00010011	5.0	00010100	5.0	00010110	6.0
00011000	6.0	00011001	6.0	00011010	11.0	00011011	15.0
00011100	5.0	00011110	10.0	00011111	4.0	00100011	-1.0
00100111	-1.0	00101000	1.0	00101001	1.0	00101010	10.0
00101011	14.0	00101110	9.0	00101111	8.0	00110000	5.0
00110001	5.0	00110010	5.0	00110011	4.0	00110100	5.0
00110110	5.0	00110111	-1.0	00111000	6.0	00111001	6.0
00111010	15.0	00111011	19.0	00111100	5.0	00111110	14.0
00111111	8.0	01001010	4.0	01001011	9.0	01001110	4.0
01001111	4.0	01010010	1.0	01010110	1.0	01011010	5.0
01011011	9.0	01011110	5.0	01011111	4.0	01100011	-1.0
01100111	-1.0	01101010	9.0	01101011	13.0	01101110	9.0
01101111	8.0	01110011	-1.0	01110111	-1.0	01111010	9.0
01111011	13.0	01111110	9.0	01111111	8.0	10001010	4.0
10001011	9.0	10001110	4.0	10001111	4.0	10010000	5.0
10010001	5.0	10010010	6.0	10010011	5.0	10010100	5.0
10010110	6.0	10011000	5.0	10011001	5.0	10011010	10.0
10011011	14.0	10011100	5.0	10011110	10.0	10011111	4.0
10100011	-1.0	10100111	-1.0	10101010	4.0	10101011	8.0
10101110	4.0	10101111	3.0	10110011	-1.0	10110101	-5.0
10110111	-6.0	10111010	4.0	10111011	8.0	10111101	-5.0
10111110	4.0	10111111	-2.0	11001010	4.0	11001011	9.0
11001110	4.0	11001111	4.0	11010010	1.0	11010110	1.0
11011010	5.0	11011011	9.0	11011110	5.0	11011111	4.0
11100011	-1.0	11100111	-1.0	11101010	4.0	11101011	8.0
11101110	4.0	11101111	3.0	11110011	-1.0	11110111	-1.0
11111010	4.0	11111011	8.0	11111110	4.0	11111111	3.0
Others	0.0						



Table 50: Faces, Length: 116, Numbers: Number 0.0: 139, Number 5.0: 22, Number 9.0: 19, Number 4.0: 15, Number -1.0: 14, Number 3.0: 13, Number 6.0: 8, Number 1.0: 8, Number 14.0: 4, Number 10.0: 4, Number 15.0: 3, Number -5.0: 2, Number -6.0: 1, Number 11.0: 1, Number 20.0: 1, Number -2.0: 1

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00000010	5.0	00000110	5.0	00001010	5.0	00010010	5.0
00010110	5.0	00011010	5.0	00100010	5.0	00100110	5.0
00101010	5.0	00111110	-5.0	01000000	1.0	01000010	6.0
01000110	5.0	01001000	1.0	01001010	6.0	01010010	5.0
01010100	-1.0	01010101	-1.0	01010110	4.0	01010111	-1.0
01011010	5.0	01011100	-1.0	01011101	-1.0	01011110	-1.0
01011111	-1.0	01100000	1.0	01100010	6.0	01100110	5.0
01101000	1.0	01101010	6.0	01110100	-1.0	01110101	-1.0
01110110	-1.0	01110111	-1.0	01111100	-1.0	01111101	-1.0
01111110	-6.0	01111111	-1.0	10000010	6.0	10000011	1.0
10000110	6.0	10000111	1.0	10001010	5.0	10010010	6.0
10010011	1.0	10010110	6.0	10010111	1.0	10011010	5.0
10100010	5.0	10100110	5.0	10101010	5.0	10111110	-5.0
11000000	5.0	11000001	4.0	11000010	11.0	11000011	5.0
11000100	4.0	11000101	4.0	11000110	10.0	11000111	5.0
11001000	10.0	11001001	9.0	11001010	15.0	11001011	9.0
11001100	4.0	11001101	4.0	11001110	4.0	11001111	4.0
11010000	4.0	11010001	4.0	11010010	10.0	11010011	5.0
11010100	3.0	11010101	3.0	11010110	9.0	11010111	4.0
11011000	9.0	11011001	9.0	11011010	14.0	11011011	9.0
11011100	3.0	11011101	3.0	11011110	3.0	11011111	3.0
11100000	10.0	11100001	9.0	11100010	15.0	11100011	9.0
11100100	9.0	11100101	9.0	11100110	14.0	11100111	9.0
11101000	15.0	11101001	14.0	11101010	20.0	11101011	14.0
11101100	9.0	11101101	9.0	11101110	9.0	11101111	9.0
11110000	4.0	11110001	4.0	11110010	4.0	11110011	4.0
11110100	3.0	11110101	3.0	11110110	3.0	11110111	3.0
11111000	9.0	11111001	9.0	11111010	9.0	11111011	9.0
11111100	3.0	11111101	3.0	11111110	-2.0	11111111	3.0
Others	0.0						

### 1.18 Tables from Tetravoxels using OMP Regression model with 38 coefficients

Table 51: Tetravoxels, Length: 38, Numbers: Number 0.0: 217, Number 1.0: 30, Number 2.0: 6, Number 3.0: 2

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00001111	1.0	00011111	1.0	00101111	1.0	00111111	1.0
01001111	1.0	01011111	1.0	01101111	1.0	01111111	1.0
10001111	1.0	10011111	1.0	10101010	1.0	10101011	1.0
10101110	1.0	10101111	2.0	10111010	1.0	10111011	1.0
10111110	1.0	10111111	2.0	11001100	1.0	11001101	1.0
11001110	1.0	11001111	2.0	11011100	1.0	11011101	1.0
11011110	1.0	11011111	2.0	11101010	1.0	11101011	1.0
11101100	1.0	11101101	1.0	11101110	2.0	11101111	3.0
11111010	1.0	11111011	1.0	11111100	1.0	11111101	1.0
11111110	2.0	11111111	3.0	Others	0.0		

Table 52: Tetravoxels, Length: 38, Numbers: Number 0.0: 217, Number 1.0: 30, Number 2.0: 6, Number 3.0: 2

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00110011	1.0	00110111	1.0	00111011	1.0	00111111	1.0
01010101	1.0	01010111	1.0	01011101	1.0	01011111	1.0
01110011	1.0	01110101	1.0	01110111	2.0	01111011	1.0
01111101	1.0	01111111	2.0	10110011	1.0	10110111	1.0
10111011	1.0	10111111	1.0	11010101	1.0	11010111	1.0
11011101	1.0	11011111	1.0	11110000	1.0	11110001	1.0
11110010	1.0	11110011	2.0	11110100	1.0	11110101	2.0
11110110	1.0	11110111	3.0	11111000	1.0	11111001	1.0
11111010	1.0	11111011	2.0	11111100	1.0	11111101	2.0
11111110	1.0	11111111	3.0	Others	0.0		

Table 53: Tetravoxels, Length: 38, Numbers: Number 0.0: 217, Number 1.0: 30, Number 2.0: 6, Number 3.0: 2

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00001111	1.0	00011111	1.0	00101111	1.0	00111111	1.0
01001111	1.0	01010101	1.0	01010111	1.0	01011101	1.0
01011111	2.0	01101111	1.0	01110101	1.0	01110111	1.0
01111101	1.0	01111111	2.0	10001111	1.0	10011111	1.0
10101111	1.0	10111111	1.0	11001100	1.0	11001101	1.0
11001110	1.0	11001111	2.0	11010101	1.0	11010111	1.0
11011100	1.0	11011101	2.0	11011110	1.0	11011111	3.0
11101100	1.0	11101101	1.0	11101110	1.0	11101111	2.0
11110101	1.0	11110111	1.0	11111100	1.0	11111101	2.0
11111110	1.0	11111111	3.0	Others	0.0		

Table 54: Tetravoxels, Length: 38, Numbers: Number 0.0: 217, Number 1.0: 30, Number 2.0: 6, Number 3.0: 2

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
01010101	1.0	01010111	1.0	01011101	1.0	01011111	1.0
01110101	1.0	01110111	1.0	01111101	1.0	01111111	1.0
11001100	1.0	11001101	1.0	11001110	1.0	11001111	1.0
11010101	1.0	11010111	1.0	11011100	1.0	11011101	2.0
11011110	1.0	11011111	2.0	11101100	1.0	11101101	1.0
11101110	1.0	11101111	1.0	11110000	1.0	11110001	1.0
11110010	1.0	11110011	1.0	11110100	1.0	11110101	2.0
11110110	1.0	11110111	2.0	11111000	1.0	11111001	1.0
11111010	1.0	11111011	1.0	11111100	2.0	11111101	3.0
11111110	2.0	11111111	3.0	Others	0.0		

Table 55: Tetravoxels, Length: 38, Numbers: Number 0.0: 217, Number 1.0: 30, Number 2.0: 6, Number 3.0: 2

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00110011	1.0	00110111	1.0	00111011	1.0	00111111	1.0
01110011	1.0	01110111	1.0	01111011	1.0	01111111	1.0
10101010	1.0	10101011	1.0	10101110	1.0	10101111	1.0
10110011	1.0	10110111	1.0	10111010	1.0	10111011	2.0
10111110	1.0	10111111	2.0	11101010	1.0	11101011	1.0
11101110	1.0	11101111	1.0	11110000	1.0	11110001	1.0
11110010	1.0	11110011	2.0	11110100	1.0	11110101	1.0
11110110	1.0	11110111	2.0	11111000	1.0	11111001	1.0
11111010	2.0	11111011	3.0	11111100	1.0	11111101	1.0
11111110	2.0	11111111	3.0	Others	0.0		

Table 56: Tetravoxels, Length: 38, Numbers: Number 0.0: 217, Number 1.0: 30, Number 2.0: 6, Number 3.0: 2

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
10101010	1.0	10101011	1.0	10101110	1.0	10101111	1.0
10111010	1.0	10111011	1.0	10111110	1.0	10111111	1.0
11001100	1.0	11001101	1.0	11001110	1.0	11001111	1.0
11011100	1.0	11011101	1.0	11011110	1.0	11011111	1.0
11101010	1.0	11101011	1.0	11101100	1.0	11101101	1.0
11101110	2.0	11101111	2.0	11110000	1.0	11110001	1.0
11110010	1.0	11110011	1.0	11110100	1.0	11110101	1.0
11110110	1.0	11110111	1.0	11111000	1.0	11111001	1.0
11111010	2.0	11111011	2.0	11111100	2.0	11111101	2.0
11111110	3.0	11111111	3.0	Others	0.0		

Table 57: Tetravoxels, Length: 38, Numbers: Number 0.0: 217, Number 1.0: 30, Number 2.0: 6, Number 3.0: 2

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00001111	1.0	00011111	1.0	00101111	1.0	00110011	1.0
00110111	1.0	00111011	1.0	00111111	2.0	01001111	1.0
01011111	1.0	01101111	1.0	01110011	1.0	01110111	1.0
01111011	1.0	01111111	2.0	10001111	1.0	10011111	1.0
10101010	1.0	10101011	1.0	10101110	1.0	10101111	2.0
10110011	1.0	10110111	1.0	10111010	1.0	10111011	2.0
10111110	1.0	10111111	3.0	11001111	1.0	11011111	1.0
11101010	1.0	11101011	1.0	11101110	1.0	11101111	2.0
11110011	1.0	11110111	1.0	11111010	1.0	11111011	2.0
11111110	1.0	11111111	3.0	Others	0.0		

Table 58: Tetravoxels, Length: 38, Numbers: Number 0.0: 217, Number 1.0: 30, Number 2.0: 6, Number 3.0: 2

Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$	Index	$\Delta E$
00001111	1.0	00011111	1.0	00101111	1.0	00110011	1.0
00110111	1.0	00111011	1.0	00111111	2.0	01001111	1.0
01010101	1.0	01010111	1.0	01011101	1.0	01011111	2.0
01101111	1.0	01110011	1.0	01110101	1.0	01110111	2.0
01111011	1.0	01111101	1.0	01111111	3.0	10001111	1.0
10011111	1.0	10101111	1.0	10110011	1.0	10110111	1.0
10111011	1.0	10111111	2.0	11001111	1.0	11010101	1.0
11010111	1.0	11011101	1.0	11011111	2.0	11101111	1.0
11110011	1.0	11110101	1.0	11110111	2.0	11111011	1.0
11111101	1.0	11111111	3.0	Others	0.0		