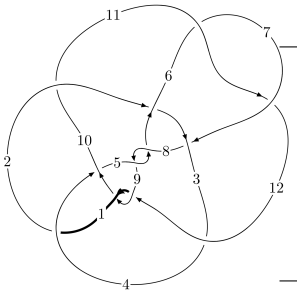
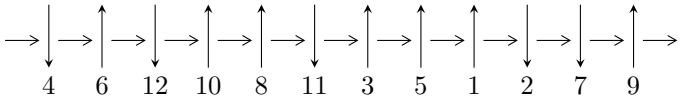
$12a_{1005}$ $(K12a_{1005})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$$\underset{c_6}{6,11} \to \underset{c_7}{3,7} \to \underset{c_{11}}{8} \to \underset{c_3}{12} \to \underset{c_2}{4} \to \underset{c_1}{2} \to \underset{c_5}{1} \to \underset{c_{10}}{5} \to \underset{c_9}{10} \to 9 \twoheadrightarrow c_4, c_8, c_{12}$$

Ideals for irreducible components[2]of $X_{\mathbf{par}}$

$$I_1^u = \langle 8.28638 \times 10^{818} u^{163} + 1.07259 \times 10^{819} u^{162} + \cdots + 4.77229 \times 10^{818} b + 8.17270 \times 10^{819},$$
$$8.15374 \times 10^{819} u^{163} + 7.61680 \times 10^{819} u^{162} + \cdots + 4.77229 \times 10^{818} a + 7.02986 \times 10^{820},\ u^{164} + u^{163} + \cdots + 2$$
$$I_2^u = \langle -1.98199 \times 10^{43} u^{43} + 9.68400 \times 10^{42} u^{42} + \cdots + 1.94108 \times 10^{43} b - 2.15307 \times 10^{43},$$
$$-8.58634 \times 10^{42} u^{43} + 2.47691 \times 10^{43} u^{42} + \cdots + 1.94108 \times 10^{43} a - 2.23616 \times 10^{43},$$
$$u^{44} - 14u^{42} + \cdots - 6u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 208 representations.

[1]The image of knot diagram is generated by the software "**Draw programme**" developed by Andrew Bartholomew(`http://www.layer8.co.uk/maths/draw/index.htm#Running-draw`), where we modified some parts for our purpose(`https://github.com/CATsTAILs/LinksPainter`).

[2]All coefficients of polynomials are rational numbers. But the coefficients are sometimes approximated in decimal forms when there is not enough margin.

I. $\boldsymbol{I_1^u = \langle 8.29 \times 10^{818} u^{163} + 1.07 \times 10^{819} u^{162} + \cdots + 4.77 \times 10^{818} b + 8.17 \times 10^{819},\ 8.15 \times 10^{819} u^{163} + 7.62 \times 10^{819} u^{162} + \cdots + 4.77 \times 10^{818} a + 7.03 \times 10^{820},\ u^{164} + u^{163} + \cdots + 2u + 1 \rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -17.0856u^{163} - 15.9605u^{162} + \cdots + 801.549u - 147.306 \\ -1.73635u^{163} - 2.24754u^{162} + \cdots + 106.126u - 17.1253 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 32.9409u^{163} + 27.5908u^{162} + \cdots - 1572.08u + 261.950 \\ 3.86320u^{163} + 2.51080u^{162} + \cdots - 143.117u + 25.0194 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -16.9444u^{163} - 15.4306u^{162} + \cdots + 786.454u - 144.913 \\ -2.51806u^{163} - 2.41108u^{162} + \cdots + 120.302u - 19.9071 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -15.3492u^{163} - 13.7129u^{162} + \cdots + 695.424u - 130.180 \\ -1.73635u^{163} - 2.24754u^{162} + \cdots + 106.126u - 17.1253 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 29.2656u^{163} + 25.7673u^{162} + \cdots - 1452.79u + 232.311 \\ 1.62972u^{163} + 2.44440u^{162} + \cdots - 147.983u + 21.1918 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 11.4222u^{163} + 8.04537u^{162} + \cdots - 456.454u + 83.4972 \\ 1.43923u^{163} + 1.37655u^{162} + \cdots - 71.8732u + 12.2456 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 36.6016u^{163} + 33.3168u^{162} + \cdots - 1824.99u + 309.036 \\ 6.11193u^{163} + 3.32962u^{162} + \cdots - 207.355u + 35.1448 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -13.1906u^{163} - 10.9444u^{162} + \cdots + 627.379u - 94.1792 \\ -1.26477u^{163} - 0.969496u^{162} + \cdots + 57.6793u - 8.49268 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -8.23974u^{163} - 7.66090u^{162} + \cdots + 441.763u - 72.5687$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{164} + 5u^{163} + \cdots - 49u + 1$
c_2	$u^{164} + u^{163} + \cdots + 36157964272u + 1936765232$
c_3	$u^{164} - 45u^{162} + \cdots - 4066348387u + 426841301$
c_4	$u^{164} - 2u^{163} + \cdots + 540u + 19$
c_5, c_8	$u^{164} + 11u^{163} + \cdots + 9685865u + 827737$
c_6, c_{11}	$u^{164} - u^{163} + \cdots - 2u + 1$
c_7	$u^{164} + u^{163} + \cdots + 2097860395u + 150897161$
c_9, c_{12}	$u^{164} - 50u^{162} + \cdots + 992u + 1808$
c_{10}	$u^{164} + 6u^{163} + \cdots + 1784816067153u + 207574985671$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{164}+3y^{163}+\cdots-411y+1$
c_2	$y^{164}+75y^{163}+\cdots+1.76\times10^{20}y+3.75\times10^{18}$
c_3	$y^{164}-90y^{163}+\cdots-2.04\times10^{19}y+1.82\times10^{17}$
c_4	$y^{164}+16y^{163}+\cdots-4434y+361$
c_5, c_8	$y^{164}+139y^{163}+\cdots-8776342483355y+685148541169$
c_6, c_{11}	$y^{164}-115y^{163}+\cdots-170y+1$
c_7	$y^{164}+59y^{163}+\cdots+634377626274351873y+22769953197859921$
c_9, c_{12}	$y^{164}-100y^{163}+\cdots-153608192y+3268864$
c_{10}	$y^{164}-108y^{163}+\cdots-3.42\times10^{24}y+4.31\times10^{22}$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.869177+0.509153I$ $a=\ \ 0.169333-1.137160I$ $b=-0.342844-0.391066I$	$2.88405-1.66044I$	0
$u=-0.869177-0.509153I$ $a=\ \ 0.169333+1.137160I$ $b=-0.342844+0.391066I$	$2.88405+1.66044I$	0
$u=-0.984878+0.106592I$ $a=-0.98146+1.62508I$ $b=-0.909765+0.456958I$	$-5.75041+0.39923I$	0
$u=-0.984878-0.106592I$ $a=-0.98146-1.62508I$ $b=-0.909765-0.456958I$	$-5.75041-0.39923I$	0
$u=-0.989183$ $a=\ \ 0.323183$ $b=\ \ 1.49558$	2.29760	0
$u=\ \ 0.988638+0.009995I$ $a=-0.213781-0.471004I$ $b=-1.34941-0.76792I$	$-1.65633+4.05752I$	0
$u=\ \ 0.988638-0.009995I$ $a=-0.213781+0.471004I$ $b=-1.34941+0.76792I$	$-1.65633-4.05752I$	0
$u=\ \ 0.110282+1.038000I$ $a=-0.409530-0.218427I$ $b=-0.475993-1.080930I$	$-4.27505+4.09712I$	0
$u=\ \ 0.110282-1.038000I$ $a=-0.409530+0.218427I$ $b=-0.475993+1.080930I$	$-4.27505-4.09712I$	0
$u=\ \ 0.568068+0.765634I$ $a=\ \ 0.181874+0.180155I$ $b=-0.597640-0.124843I$	$0.02802-2.07677I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.568068 - 0.765634I$ $a = 0.181874 - 0.180155I$ $b = -0.597640 + 0.124843I$	$0.02802 + 2.07677I$	0
$u = 0.996494 + 0.342855I$ $a = 0.46220 + 1.49178I$ $b = -0.299086 + 0.459250I$	$-1.37379 - 2.15935I$	0
$u = 0.996494 - 0.342855I$ $a = 0.46220 - 1.49178I$ $b = -0.299086 - 0.459250I$	$-1.37379 + 2.15935I$	0
$u = -0.983860 + 0.378927I$ $a = 0.82851 - 2.38314I$ $b = -0.24401 - 2.23511I$	$-1.96890 + 9.67297I$	0
$u = -0.983860 - 0.378927I$ $a = 0.82851 + 2.38314I$ $b = -0.24401 + 2.23511I$	$-1.96890 - 9.67297I$	0
$u = 1.000460 + 0.373358I$ $a = -0.31736 - 1.74450I$ $b = 0.79791 - 1.47090I$	$1.32797 - 6.43845I$	0
$u = 1.000460 - 0.373358I$ $a = -0.31736 + 1.74450I$ $b = 0.79791 + 1.47090I$	$1.32797 + 6.43845I$	0
$u = -0.611311 + 0.879204I$ $a = 0.0074746 + 0.0729978I$ $b = -0.692411 + 0.111158I$	$3.93629 + 6.69317I$	0
$u = -0.611311 - 0.879204I$ $a = 0.0074746 - 0.0729978I$ $b = -0.692411 - 0.111158I$	$3.93629 - 6.69317I$	0
$u = 0.927110 + 0.008097I$ $a = -1.49056 - 2.33101I$ $b = -0.60629 - 1.28946I$	$-1.38113 + 4.26225I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.927110 - 0.008097I$ $a = -1.49056 + 2.33101I$ $b = -0.60629 + 1.28946I$	$-1.38113 - 4.26225I$	0
$u = -0.762078 + 0.505620I$ $a = 0.465622 - 0.166428I$ $b = -0.728178 - 0.821593I$	$-4.82240 + 2.94091I$	0
$u = -0.762078 - 0.505620I$ $a = 0.465622 + 0.166428I$ $b = -0.728178 + 0.821593I$	$-4.82240 - 2.94091I$	0
$u = 0.121991 + 0.906158I$ $a = 0.227372 + 0.611408I$ $b = 0.313848 - 1.058270I$	$0.40256 - 2.20922I$	0
$u = 0.121991 - 0.906158I$ $a = 0.227372 - 0.611408I$ $b = 0.313848 + 1.058270I$	$0.40256 + 2.20922I$	0
$u = 0.979536 + 0.479470I$ $a = -0.657563 - 0.239774I$ $b = -0.886401 - 0.138579I$	$-3.26146 - 4.28093I$	0
$u = 0.979536 - 0.479470I$ $a = -0.657563 + 0.239774I$ $b = -0.886401 + 0.138579I$	$-3.26146 + 4.28093I$	0
$u = -0.071281 + 0.898521I$ $a = 0.420818 + 0.086329I$ $b = 0.118209 - 0.746553I$	$1.00223 - 1.62980I$	0
$u = -0.071281 - 0.898521I$ $a = 0.420818 - 0.086329I$ $b = 0.118209 + 0.746553I$	$1.00223 + 1.62980I$	0
$u = 0.524762 + 0.731683I$ $a = 0.803081 - 0.246957I$ $b = 0.684276 + 0.748128I$	$2.78644 + 2.16616I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.524762 - 0.731683I$ $a = 0.803081 + 0.246957I$ $b = 0.684276 - 0.748128I$	$2.78644 - 2.16616I$	0
$u = -0.388899 + 0.789502I$ $a = 0.396051 + 0.382103I$ $b = -0.666792 + 0.202791I$	$3.92783 - 3.00284I$	0
$u = -0.388899 - 0.789502I$ $a = 0.396051 - 0.382103I$ $b = -0.666792 - 0.202791I$	$3.92783 + 3.00284I$	0
$u = -0.533760 + 0.695751I$ $a = -1.166200 + 0.474805I$ $b = -0.64659 + 1.32891I$	$-0.59796 - 5.44213I$	0
$u = -0.533760 - 0.695751I$ $a = -1.166200 - 0.474805I$ $b = -0.64659 - 1.32891I$	$-0.59796 + 5.44213I$	0
$u = 0.510980 + 0.701345I$ $a = -0.393768 + 0.930484I$ $b = -0.719215 + 0.307785I$	$-1.91908 - 0.16586I$	0
$u = 0.510980 - 0.701345I$ $a = -0.393768 - 0.930484I$ $b = -0.719215 - 0.307785I$	$-1.91908 + 0.16586I$	0
$u = -0.136828 + 0.854748I$ $a = -0.628575 + 0.232734I$ $b = 0.934372 - 1.019320I$	$-1.107670 + 0.419568I$	0
$u = -0.136828 - 0.854748I$ $a = -0.628575 - 0.232734I$ $b = 0.934372 + 1.019320I$	$-1.107670 - 0.419568I$	0
$u = 1.094910 + 0.298629I$ $a = 0.20062 - 1.92505I$ $b = 0.623344 - 0.958586I$	$2.11373 - 2.89494I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.094910 - 0.298629I$ $a = 0.20062 + 1.92505I$ $b = 0.623344 + 0.958586I$	$2.11373 + 2.89494I$	0
$u = -0.042815 + 1.140330I$ $a = -0.0374798 - 0.0738951I$ $b = 0.630521 + 1.169310I$	$-7.07361 + 7.95236I$	0
$u = -0.042815 - 1.140330I$ $a = -0.0374798 + 0.0738951I$ $b = 0.630521 - 1.169310I$	$-7.07361 - 7.95236I$	0
$u = 1.144680 + 0.061494I$ $a = -0.439003 - 1.032340I$ $b = 0.961928 - 0.556071I$	$-3.95806 - 1.64685I$	0
$u = 1.144680 - 0.061494I$ $a = -0.439003 + 1.032340I$ $b = 0.961928 + 0.556071I$	$-3.95806 + 1.64685I$	0
$u = 1.097070 + 0.341636I$ $a = -0.21959 - 2.37665I$ $b = 0.724553 - 0.658358I$	$-2.31943 - 11.01080I$	0
$u = 1.097070 - 0.341636I$ $a = -0.21959 + 2.37665I$ $b = 0.724553 + 0.658358I$	$-2.31943 + 11.01080I$	0
$u = -1.148980 + 0.110231I$ $a = 1.88462 - 0.74988I$ $b = -0.362477 - 0.523976I$	$-8.23855 + 3.87446I$	0
$u = -1.148980 - 0.110231I$ $a = 1.88462 + 0.74988I$ $b = -0.362477 + 0.523976I$	$-8.23855 - 3.87446I$	0
$u = -1.084780 + 0.395668I$ $a = 0.09976 - 1.59908I$ $b = -0.275370 - 0.497316I$	$1.74648 + 7.39363I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.084780-0.395668I$ $a=0.09976+1.59908I$ $b=-0.275370+0.497316I$	$1.74648-7.39363I$	0
$u=0.058061+1.156460I$ $a=-0.143195+0.226079I$ $b=-0.382394+0.994846I$	$-3.78704-1.46192I$	0
$u=0.058061-1.156460I$ $a=-0.143195-0.226079I$ $b=-0.382394-0.994846I$	$-3.78704+1.46192I$	0
$u=1.145920+0.177078I$ $a=-0.57231+2.53665I$ $b=-1.49586+2.26841I$	$-7.72342-4.92973I$	0
$u=1.145920-0.177078I$ $a=-0.57231-2.53665I$ $b=-1.49586-2.26841I$	$-7.72342+4.92973I$	0
$u=-1.161090+0.104189I$ $a=2.04318-0.94505I$ $b=2.85400-1.26008I$	$-5.14556+9.46016I$	0
$u=-1.161090-0.104189I$ $a=2.04318+0.94505I$ $b=2.85400+1.26008I$	$-5.14556-9.46016I$	0
$u=-1.163070+0.091280I$ $a=-0.96985-2.02725I$ $b=-0.004406-0.954808I$	$-7.49510+3.02617I$	0
$u=-1.163070-0.091280I$ $a=-0.96985+2.02725I$ $b=-0.004406+0.954808I$	$-7.49510-3.02617I$	0
$u=0.037336+1.174070I$ $a=0.0369438-0.0021738I$ $b=0.633978-1.120670I$	$-3.6139-14.2988I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.037336 - 1.174070I$ $a = 0.0369438 + 0.0021738I$ $b = 0.633978 + 1.120670I$	$-3.6139 + 14.2988I$	0
$u = -1.175240 + 0.019483I$ $a = -1.08758 - 1.50814I$ $b = -1.91459 - 1.19881I$	$-6.92293 - 1.18653I$	0
$u = -1.175240 - 0.019483I$ $a = -1.08758 + 1.50814I$ $b = -1.91459 + 1.19881I$	$-6.92293 + 1.18653I$	0
$u = 1.177890 + 0.101131I$ $a = -0.38284 - 1.39453I$ $b = -1.16148 - 1.29798I$	$-1.91607 - 5.93788I$	0
$u = 1.177890 - 0.101131I$ $a = -0.38284 + 1.39453I$ $b = -1.16148 + 1.29798I$	$-1.91607 + 5.93788I$	0
$u = 0.413597 + 1.111510I$ $a = -0.0327605 + 0.0381918I$ $b = -0.526517 + 0.780079I$	$-3.64684 - 5.55468I$	0
$u = 0.413597 - 1.111510I$ $a = -0.0327605 - 0.0381918I$ $b = -0.526517 - 0.780079I$	$-3.64684 + 5.55468I$	0
$u = -1.155270 + 0.298688I$ $a = -0.03568 + 1.67083I$ $b = 0.81152 + 1.21264I$	$-1.86367 + 4.29799I$	0
$u = -1.155270 - 0.298688I$ $a = -0.03568 - 1.67083I$ $b = 0.81152 - 1.21264I$	$-1.86367 - 4.29799I$	0
$u = -1.132370 + 0.420585I$ $a = -0.42032 + 1.94326I$ $b = 1.037530 + 0.744513I$	$-4.09090 + 4.18339I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.132370-0.420585I$ $a=-0.42032-1.94326I$ $b=\ \ 1.037530-0.744513I$	$-4.09090-4.18339I$	0
$u=\ \ 0.387215+1.150160I$ $a=\ \ 0.068647+0.367207I$ $b=-0.294912-0.951769I$	$0.94845-2.33153I$	0
$u=\ \ 0.387215-1.150160I$ $a=\ \ 0.068647-0.367207I$ $b=-0.294912+0.951769I$	$0.94845+2.33153I$	0
$u=\ \ 1.213060+0.091257I$ $a=-0.86938+1.94522I$ $b=\ \ 0.097298+0.850904I$	$-7.35097+0.00282I$	0
$u=\ \ 1.213060-0.091257I$ $a=-0.86938-1.94522I$ $b=\ \ 0.097298-0.850904I$	$-7.35097-0.00282I$	0
$u=-1.218950+0.072910I$ $a=-0.332032+1.228250I$ $b=-0.98997+1.05400I$	$-5.32723+1.90230I$	0
$u=-1.218950-0.072910I$ $a=-0.332032-1.228250I$ $b=-0.98997-1.05400I$	$-5.32723-1.90230I$	0
$u=-1.213930+0.134347I$ $a=-0.28497+1.49694I$ $b=\ \ 0.912019+0.910189I$	$-2.54036+6.40960I$	0
$u=-1.213930-0.134347I$ $a=-0.28497-1.49694I$ $b=\ \ 0.912019-0.910189I$	$-2.54036-6.40960I$	0
$u=\ \ 1.222810+0.019284I$ $a=\ \ 1.49065+1.86983I$ $b=\ \ 2.20030+2.25331I$	$-9.54126-2.19090I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.222810 - 0.019284I$ $a = 1.49065 - 1.86983I$ $b = 2.20030 - 2.25331I$	$-9.54126 + 2.19090I$	0
$u = 1.220500 + 0.106731I$ $a = 1.58784 + 1.27953I$ $b = -0.288614 + 0.645675I$	$-6.13373 - 9.45444I$	0
$u = 1.220500 - 0.106731I$ $a = 1.58784 - 1.27953I$ $b = -0.288614 - 0.645675I$	$-6.13373 + 9.45444I$	0
$u = -0.282250 + 0.707194I$ $a = -0.280043 - 1.165130I$ $b = -0.735495 - 0.358113I$	$-1.85063 + 2.39683I$	0
$u = -0.282250 - 0.707194I$ $a = -0.280043 + 1.165130I$ $b = -0.735495 + 0.358113I$	$-1.85063 - 2.39683I$	0
$u = -1.247330 + 0.058445I$ $a = -1.07170 + 1.61991I$ $b = -0.067135 + 0.807125I$	$-8.55110 - 0.86479I$	0
$u = -1.247330 - 0.058445I$ $a = -1.07170 - 1.61991I$ $b = -0.067135 - 0.807125I$	$-8.55110 + 0.86479I$	0
$u = 1.205270 + 0.327362I$ $a = 0.669062 + 0.830430I$ $b = -0.533111 + 0.808691I$	$-3.17488 - 2.14050I$	0
$u = 1.205270 - 0.327362I$ $a = 0.669062 - 0.830430I$ $b = -0.533111 - 0.808691I$	$-3.17488 + 2.14050I$	0
$u = 0.327958 + 0.663780I$ $a = -0.927633 + 0.038826I$ $b = 1.057040 + 0.704387I$	$-0.00772 + 7.17049I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.327958 - 0.663780I$ $a = -0.927633 - 0.038826I$ $b = 1.057040 - 0.704387I$	$-0.00772 - 7.17049I$	0
$u = 0.012202 + 1.265000I$ $a = 0.0647472 + 0.0104404I$ $b = -0.226588 + 0.775219I$	$-1.44674 - 2.78950I$	0
$u = 0.012202 - 1.265000I$ $a = 0.0647472 - 0.0104404I$ $b = -0.226588 - 0.775219I$	$-1.44674 + 2.78950I$	0
$u = 1.282870 + 0.113745I$ $a = 0.217836 + 1.053510I$ $b = -0.458722 + 0.881054I$	$-3.27327 - 1.47146I$	0
$u = 1.282870 - 0.113745I$ $a = 0.217836 - 1.053510I$ $b = -0.458722 - 0.881054I$	$-3.27327 + 1.47146I$	0
$u = -1.276080 + 0.200277I$ $a = -0.343334 + 0.789554I$ $b = -0.845919 + 0.569676I$	$-5.14547 + 1.35722I$	0
$u = -1.276080 - 0.200277I$ $a = -0.343334 - 0.789554I$ $b = -0.845919 - 0.569676I$	$-5.14547 - 1.35722I$	0
$u = 1.314330 + 0.048916I$ $a = -0.81780 + 1.67966I$ $b = -0.068630 + 0.779887I$	$-7.40804 - 4.47819I$	0
$u = 1.314330 - 0.048916I$ $a = -0.81780 - 1.67966I$ $b = -0.068630 - 0.779887I$	$-7.40804 + 4.47819I$	0
$u = -0.668100 + 0.128523I$ $a = 1.06443 + 1.55537I$ $b = 0.475499 + 0.372168I$	$2.64434 + 1.05337I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.668100-0.128523I$ $a=\ 1.06443-1.55537I$ $b=\ 0.475499-0.372168I$	$2.64434-1.05337I$	0
$u=-0.343643+0.586130I$ $a=\ 0.207282+0.376920I$ $b=-0.681941-0.905837I$	$-4.76926+2.89327I$	0
$u=-0.343643-0.586130I$ $a=\ 0.207282-0.376920I$ $b=-0.681941+0.905837I$	$-4.76926-2.89327I$	0
$u=-1.325720+0.027156I$ $a=\ 0.65965+1.59435I$ $b=\ 1.09126+1.92199I$	$-5.92496+5.44183I$	0
$u=-1.325720-0.027156I$ $a=\ 0.65965-1.59435I$ $b=\ 1.09126-1.92199I$	$-5.92496-5.44183I$	0
$u=-1.281900+0.498733I$ $a=-0.892083+0.763089I$ $b=\ 0.117064+0.851389I$	$-8.57748+0.88225I$	0
$u=-1.281900-0.498733I$ $a=-0.892083-0.763089I$ $b=\ 0.117064-0.851389I$	$-8.57748-0.88225I$	0
$u=-0.198614+0.577381I$ $a=\ 0.239318+0.330408I$ $b=\ 0.595695-0.486141I$	$1.010920-0.883539I$	0
$u=-0.198614-0.577381I$ $a=\ 0.239318-0.330408I$ $b=\ 0.595695+0.486141I$	$1.010920+0.883539I$	0
$u=\ 1.323560+0.441421I$ $a=\ 0.864050+1.015820I$ $b=\ 0.27725+1.79614I$	$-5.56788-5.01333I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.323560 - 0.441421I$ $a = 0.864050 - 1.015820I$ $b = 0.27725 - 1.79614I$	$-5.56788 + 5.01333I$	0
$u = 0.325093 + 0.508781I$ $a = -0.081684 + 0.140427I$ $b = 1.006040 + 0.467639I$	$4.45069 - 0.36184I$	0
$u = 0.325093 - 0.508781I$ $a = -0.081684 - 0.140427I$ $b = 1.006040 - 0.467639I$	$4.45069 + 0.36184I$	0
$u = 1.36885 + 0.36876I$ $a = -0.04057 + 1.70575I$ $b = -0.92514 + 1.54786I$	$-9.90194 - 6.89799I$	0
$u = 1.36885 - 0.36876I$ $a = -0.04057 - 1.70575I$ $b = -0.92514 - 1.54786I$	$-9.90194 + 6.89799I$	0
$u = -1.33014 + 0.51525I$ $a = -0.316409 + 1.292020I$ $b = 0.46348 + 1.40607I$	$-2.92403 + 6.94331I$	0
$u = -1.33014 - 0.51525I$ $a = -0.316409 - 1.292020I$ $b = 0.46348 - 1.40607I$	$-2.92403 - 6.94331I$	0
$u = 1.34450 + 0.53734I$ $a = 0.27958 + 1.63896I$ $b = -0.59477 + 1.49157I$	$-8.21494 - 9.81676I$	0
$u = 1.34450 - 0.53734I$ $a = 0.27958 - 1.63896I$ $b = -0.59477 - 1.49157I$	$-8.21494 + 9.81676I$	0
$u = -0.00921 + 1.45579I$ $a = -0.0124504 + 0.0153640I$ $b = -0.243685 - 0.693284I$	$2.54879 + 6.99583I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.00921-1.45579I$ $a=-0.0124504-0.0153640I$ $b=-0.243685+0.693284I$	$2.54879-6.99583I$	0
$u=\ \ 1.35734+0.56356I$ $a=\ \ 0.321951+1.046950I$ $b=-0.830586+1.050930I$	$-2.53664-3.87888I$	0
$u=\ \ 1.35734-0.56356I$ $a=\ \ 0.321951-1.046950I$ $b=-0.830586-1.050930I$	$-2.53664+3.87888I$	0
$u=-1.40589+0.47370I$ $a=-0.21826+1.60316I$ $b=\ \ 1.18111+2.01498I$	$-4.50560+7.27936I$	0
$u=-1.40589-0.47370I$ $a=-0.21826-1.60316I$ $b=\ \ 1.18111-2.01498I$	$-4.50560-7.27936I$	0
$u=\ \ 1.38998+0.52477I$ $a=-0.22510-1.59400I$ $b=\ \ 1.05072-1.52408I$	$-11.6002-13.7978I$	0
$u=\ \ 1.38998-0.52477I$ $a=-0.22510+1.59400I$ $b=\ \ 1.05072+1.52408I$	$-11.6002+13.7978I$	0
$u=-1.40616+0.50944I$ $a=\ \ 0.25369-1.53815I$ $b=-0.64117-1.36346I$	$-8.47222+7.31099I$	0
$u=-1.40616-0.50944I$ $a=\ \ 0.25369+1.53815I$ $b=-0.64117+1.36346I$	$-8.47222-7.31099I$	0
$u=-1.43705+0.41795I$ $a=-0.02431-1.53046I$ $b=-0.90783-1.39477I$	$-9.3423+10.7264I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.43705-0.41795I$ $a=-0.02431+1.53046I$ $b=-0.90783+1.39477I$	$-9.3423-10.7264I$	0
$u=-1.39920+0.53936I$ $a=-0.20694+1.58779I$ $b=\ \ 0.99308+1.50160I$	$-8.1548+20.2998I$	0
$u=-1.39920-0.53936I$ $a=-0.20694-1.58779I$ $b=\ \ 0.99308-1.50160I$	$-8.1548-20.2998I$	0
$u=-1.42181+0.53107I$ $a=\ \ 0.173019-1.208400I$ $b=-0.817042-1.134700I$	$-6.16542+9.00087I$	0
$u=-1.42181-0.53107I$ $a=\ \ 0.173019+1.208400I$ $b=-0.817042+1.134700I$	$-6.16542-9.00087I$	0
$u=\ \ 1.41936+0.55478I$ $a=-0.611534-0.893951I$ $b=\ \ 0.162081-0.978837I$	$-8.13440-4.73588I$	0
$u=\ \ 1.41936-0.55478I$ $a=-0.611534+0.893951I$ $b=\ \ 0.162081+0.978837I$	$-8.13440+4.73588I$	0
$u=\ \ 1.45901+0.49891I$ $a=-0.199424-1.013340I$ $b=\ \ 0.478238-1.119680I$	$-6.38776-3.51668I$	0
$u=\ \ 1.45901-0.49891I$ $a=-0.199424+1.013340I$ $b=\ \ 0.478238+1.119680I$	$-6.38776+3.51668I$	0
$u=-1.44500+0.54637I$ $a=\ \ 0.599728-0.761273I$ $b=-0.075661-1.248430I$	$-11.49990-1.75481I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.44500-0.54637I$ $a=\ \ 0.599728+0.761273I$ $b=-0.075661+1.248430I$	$-11.49990+1.75481I$	0
$u=\ \ 1.45510+0.55770I$ $a=\ \ 0.062544+1.158230I$ $b=-0.88196+1.12725I$	$-2.38417-13.73050I$	0
$u=\ \ 1.45510-0.55770I$ $a=\ \ 0.062544-1.158230I$ $b=-0.88196-1.12725I$	$-2.38417+13.73050I$	0
$u=\ \ 1.49488+0.54971I$ $a=\ \ 0.556075+0.702569I$ $b=-0.074312+1.106710I$	$-8.20067+7.88855I$	0
$u=\ \ 1.49488-0.54971I$ $a=\ \ 0.556075-0.702569I$ $b=-0.074312-1.106710I$	$-8.20067-7.88855I$	0
$u=-1.54678+0.38241I$ $a=\ \ 0.058988+0.963652I$ $b=\ \ 0.671602+1.051840I$	$-3.44852-0.15850I$	0
$u=-1.54678-0.38241I$ $a=\ \ 0.058988-0.963652I$ $b=\ \ 0.671602-1.051840I$	$-3.44852+0.15850I$	0
$u=-0.403651$ $a=\ \ 0.269102$ $b=\ \ 1.17376$	3.11032	-14.4860
$u=-0.017309+0.345215I$ $a=-0.64237+1.75395I$ $b=-0.754075-0.974867I$	$-4.65307+2.82812I$	$-1.91627-3.18964I$
$u=-0.017309-0.345215I$ $a=-0.64237-1.75395I$ $b=-0.754075+0.974867I$	$-4.65307-2.82812I$	$-1.91627+3.18964I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.46816+0.88855I$ $a=-0.331077+0.392184I$ $b=\ \ 0.298333+0.738138I$	$-6.28229+4.32405I$	0
$u=-1.46816-0.88855I$ $a=-0.331077-0.392184I$ $b=\ \ 0.298333-0.738138I$	$-6.28229-4.32405I$	0
$u=\ \ 1.58743+0.69474I$ $a=-0.213989-0.594570I$ $b=\ \ 0.414341-0.814522I$	$-7.00010-2.20644I$	0
$u=\ \ 1.58743-0.69474I$ $a=-0.213989+0.594570I$ $b=\ \ 0.414341+0.814522I$	$-7.00010+2.20644I$	0
$u=-0.156395+0.203509I$ $a=-0.57502-5.54669I$ $b=\ \ 0.577216+0.859044I$	$-5.50574-2.51494I$	$-0.277428+1.330396I$
$u=-0.156395-0.203509I$ $a=-0.57502+5.54669I$ $b=\ \ 0.577216-0.859044I$	$-5.50574+2.51494I$	$-0.277428-1.330396I$
$u=\ \ 0.172907+0.041641I$ $a=\ \ 5.13888+1.21083I$ $b=-0.051203-0.483822I$	$-1.37595-1.18765I$	$-5.19575-0.40054I$
$u=\ \ 0.172907-0.041641I$ $a=\ \ 5.13888-1.21083I$ $b=-0.051203+0.483822I$	$-1.37595+1.18765I$	$-5.19575+0.40054I$
$u=-0.0350083+0.1355980I$ $a=-0.33266-7.16426I$ $b=-0.679654-0.787469I$	$-3.73207-1.00515I$	$-2.40866+2.83393I$
$u=-0.0350083-0.1355980I$ $a=-0.33266+7.16426I$ $b=-0.679654+0.787469I$	$-3.73207+1.00515I$	$-2.40866-2.83393I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.1232550+0.0012074I$ $a=\ \ 10.42810-7.79652I$ $b=\ \ 0.794455-0.940532I$	$-2.25570+8.60093I$	$2.87789-3.87010I$
$u=-0.1232550-0.0012074I$ $a=\ \ 10.42810+7.79652I$ $b=\ \ 0.794455+0.940532I$	$-2.25570-8.60093I$	$2.87789+3.87010I$
$u=\ \ 0.0779976+0.0571355I$ $a=-11.07950-0.60969I$ $b=\ \ 0.081061-0.855623I$	$1.20762-5.23630I$	$-0.16932+5.08837I$
$u=\ \ 0.0779976-0.0571355I$ $a=-11.07950+0.60969I$ $b=\ \ 0.081061+0.855623I$	$1.20762+5.23630I$	$-0.16932-5.08837I$

II. $I_2^u = \langle -1.98\times 10^{43}u^{43} + 9.68\times 10^{42}u^{42} + \cdots + 1.94\times 10^{43}b - 2.15\times 10^{43},\ -8.59\times 10^{42}u^{43} + 2.48\times 10^{43}u^{42} + \cdots + 1.94\times 10^{43}a - 2.24\times 10^{43},\ u^{44} - 14u^{42} + \cdots - 6u + 1\rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.442348u^{43} - 1.27605u^{42} + \cdots + 9.48823u + 1.15202 \\ 1.02107u^{43} - 0.498897u^{42} + \cdots + 0.456345u + 1.10921 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -1.86583u^{43} + 1.94186u^{42} + \cdots + 8.11038u - 2.61443 \\ -2.73749u^{43} - 1.19751u^{42} + \cdots - 3.68047u - 0.277328 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.951559u^{43} - 1.50839u^{42} + \cdots + 9.19417u + 1.36164 \\ 0.530214u^{43} - 0.642325u^{42} + \cdots + 0.750293u + 1.13192 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.578727u^{43} - 0.777152u^{42} + \cdots + 9.03189u + 0.0428080 \\ 1.02107u^{43} - 0.498897u^{42} + \cdots + 0.456345u + 1.10921 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 3.75965u^{43} + 3.18740u^{42} + \cdots + 26.6527u + 0.527639 \\ -1.21929u^{43} - 1.45127u^{42} + \cdots - 0.893534u + 3.25217 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -3.03093u^{43} + 0.485290u^{42} + \cdots + 15.7037u + 1.16313 \\ -1.74433u^{43} - 1.39069u^{42} + \cdots - 0.604828u + 1.79368 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 3.10216u^{43} + 1.98381u^{42} + \cdots + 12.5978u - 2.70383 \\ -0.469843u^{43} - 3.60173u^{42} + \cdots - 13.2327u + 2.48958 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -1.99045u^{43} - 2.99452u^{42} + \cdots - 24.8396u - 1.21104 \\ 0.872695u^{43} - 0.591305u^{42} + \cdots - 6.80976u - 1.68244 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 8.44648u^{43} + 7.77679u^{42} + \cdots + 29.5073u + 7.06652$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{44} - 16u^{43} + \cdots - u + 1$
c_2	$u^{44} + 11u^{42} + \cdots + 24u + 4$
c_3	$u^{44} - 5u^{43} + \cdots + 459u + 53$
c_4	$u^{44} - u^{43} + \cdots - 12u + 1$
c_5	$u^{44} + 2u^{43} + \cdots - 3u + 1$
c_6	$u^{44} - 14u^{42} + \cdots - 6u + 1$
c_7	$u^{44} + 5u^{42} + \cdots + 5u + 1$
c_8	$u^{44} - 2u^{43} + \cdots + 3u + 1$
c_9	$u^{44} - 3u^{43} + \cdots - 12u + 4$
c_{10}	$u^{44} + u^{43} + \cdots + 21u + 5$
c_{11}	$u^{44} - 14u^{42} + \cdots + 6u + 1$
c_{12}	$u^{44} + 3u^{43} + \cdots + 12u + 4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{44} + 2y^{43} + \cdots + 13y + 1$
c_2	$y^{44} + 22y^{43} + \cdots + 160y + 16$
c_3	$y^{44} - 23y^{43} + \cdots - 54861y + 2809$
c_4	$y^{44} + 11y^{43} + \cdots - 30y + 1$
c_5, c_8	$y^{44} + 42y^{43} + \cdots + 41y + 1$
c_6, c_{11}	$y^{44} - 28y^{43} + \cdots - 62y + 1$
c_7	$y^{44} + 10y^{43} + \cdots + 25y + 1$
c_9, c_{12}	$y^{44} - 33y^{43} + \cdots - 336y + 16$
c_{10}	$y^{44} - 33y^{43} + \cdots + 139y + 25$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.568391+0.729128I$ $a=\ 0.326516-0.134851I$ $b=\ 0.380316-0.794226I$	$1.76900-2.98029I$	$1.04056+5.86823I$
$u=-0.568391-0.729128I$ $a=\ 0.326516+0.134851I$ $b=\ 0.380316+0.794226I$	$1.76900+2.98029I$	$1.04056-5.86823I$
$u=-0.033308+0.916019I$ $a=-0.384168-0.100421I$ $b=-0.541615-0.980435I$	$-3.90826+3.71668I$	$4.02023-0.85316I$
$u=-0.033308-0.916019I$ $a=-0.384168+0.100421I$ $b=-0.541615+0.980435I$	$-3.90826-3.71668I$	$4.02023+0.85316I$
$u=-0.892569+0.173792I$ $a=\ 1.71165-1.41188I$ $b=-0.211018-1.068310I$	$-6.75098+3.24279I$	$-5.20056-3.28738I$
$u=-0.892569-0.173792I$ $a=\ 1.71165+1.41188I$ $b=-0.211018+1.068310I$	$-6.75098-3.24279I$	$-5.20056+3.28738I$
$u=\ 0.877395+0.152405I$ $a=\ 2.10983+2.09126I$ $b=\ 0.84419+1.16328I$	$-3.27466-9.05461I$	$-3.85875+6.80346I$
$u=\ 0.877395-0.152405I$ $a=\ 2.10983-2.09126I$ $b=\ 0.84419-1.16328I$	$-3.27466+9.05461I$	$-3.85875-6.80346I$
$u=-1.067210+0.329641I$ $a=-0.56149+1.96654I$ $b=\ 0.24571+1.41174I$	$0.23792+6.95330I$	$-0.19235-8.00770I$
$u=-1.067210-0.329641I$ $a=-0.56149-1.96654I$ $b=\ 0.24571-1.41174I$	$0.23792-6.95330I$	$-0.19235+8.00770I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.330852 + 0.811289I$ $a = -0.563311 + 0.372540I$ $b = 0.275944 - 0.148859I$	$-0.73315 - 2.06862I$	$-1.57378 + 3.38991I$
$u = 0.330852 - 0.811289I$ $a = -0.563311 - 0.372540I$ $b = 0.275944 + 0.148859I$	$-0.73315 + 2.06862I$	$-1.57378 - 3.38991I$
$u = -1.172850 + 0.021726I$ $a = -0.583184 + 1.156580I$ $b = 0.559159 + 1.117440I$	$-8.10503 - 2.37367I$	$-6.79272 + 2.26525I$
$u = -1.172850 - 0.021726I$ $a = -0.583184 - 1.156580I$ $b = 0.559159 - 1.117440I$	$-8.10503 + 2.37367I$	$-6.79272 - 2.26525I$
$u = 1.192190 + 0.007031I$ $a = 0.445993 - 0.289531I$ $b = 1.47886 + 0.24026I$	$-4.77244 - 8.33818I$	$-2.93267 + 4.59657I$
$u = 1.192190 - 0.007031I$ $a = 0.445993 + 0.289531I$ $b = 1.47886 - 0.24026I$	$-4.77244 + 8.33818I$	$-2.93267 - 4.59657I$
$u = -0.265778 + 1.172380I$ $a = -0.337377 - 0.276762I$ $b = 0.103325 + 0.346660I$	$2.85117 + 6.46214I$	$3.00364 - 1.54985I$
$u = -0.265778 - 1.172380I$ $a = -0.337377 + 0.276762I$ $b = 0.103325 - 0.346660I$	$2.85117 - 6.46214I$	$3.00364 + 1.54985I$
$u = 0.392625 + 1.141650I$ $a = -0.102520 - 0.444080I$ $b = 0.377598 + 0.999885I$	$1.04603 - 2.36836I$	$44.1617 + 18.2072I$
$u = 0.392625 - 1.141650I$ $a = -0.102520 + 0.444080I$ $b = 0.377598 - 0.999885I$	$1.04603 + 2.36836I$	$44.1617 - 18.2072I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.152800 + 0.390687I$ $a = -0.40730 - 1.37844I$ $b = 0.750002 - 0.841006I$	$-1.70467 - 3.09935I$	$3.87495 + 4.69017I$
$u = 1.152800 - 0.390687I$ $a = -0.40730 + 1.37844I$ $b = 0.750002 + 0.841006I$	$-1.70467 + 3.09935I$	$3.87495 - 4.69017I$
$u = -1.224780 + 0.039877I$ $a = -0.79988 - 1.85151I$ $b = -0.103003 - 0.956789I$	$-7.94022 + 2.00227I$	$-7.11951 - 1.81247I$
$u = -1.224780 - 0.039877I$ $a = -0.79988 + 1.85151I$ $b = -0.103003 + 0.956789I$	$-7.94022 - 2.00227I$	$-7.11951 + 1.81247I$
$u = -1.132700 + 0.469548I$ $a = 0.204521 - 0.037375I$ $b = -0.736644 - 0.459692I$	$-5.16435 + 3.96917I$	$-2.76653 - 7.09820I$
$u = -1.132700 - 0.469548I$ $a = 0.204521 + 0.037375I$ $b = -0.736644 + 0.459692I$	$-5.16435 - 3.96917I$	$-2.76653 + 7.09820I$
$u = 0.253854 + 0.728873I$ $a = -0.079304 + 0.813278I$ $b = -0.626223 + 0.602615I$	$-2.68839 - 0.52478I$	$-1.61508 + 0.33967I$
$u = 0.253854 - 0.728873I$ $a = -0.079304 - 0.813278I$ $b = -0.626223 - 0.602615I$	$-2.68839 + 0.52478I$	$-1.61508 - 0.33967I$
$u = 1.250770 + 0.172717I$ $a = 0.019104 - 0.386515I$ $b = -0.867769 - 0.098738I$	$-5.72596 - 0.65381I$	$-5.93761 - 2.46971I$
$u = 1.250770 - 0.172717I$ $a = 0.019104 + 0.386515I$ $b = -0.867769 + 0.098738I$	$-5.72596 + 0.65381I$	$-5.93761 + 2.46971I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 1.257720 + 0.122794I$ $a = -0.59138 - 1.49408I$ $b = -0.607999 - 1.208340I$	$-6.19270 - 2.65309I$	$-5.10233 + 4.38496I$
$u = \ 1.257720 - 0.122794I$ $a = -0.59138 + 1.49408I$ $b = -0.607999 + 1.208340I$	$-6.19270 + 2.65309I$	$-5.10233 - 4.38496I$
$u = \ 1.25358 + 0.67281I$ $a = -0.688839 - 0.557867I$ $b = -0.035633 - 1.006920I$	$-4.93206 - 3.97224I$	0
$u = \ 1.25358 - 0.67281I$ $a = -0.688839 + 0.557867I$ $b = -0.035633 + 1.006920I$	$-4.93206 + 3.97224I$	0
$u = -1.38297 + 0.42968I$ $a = \ 0.20311 - 1.65072I$ $b = -0.98968 - 2.08326I$	$-4.74525 + 7.21929I$	0
$u = -1.38297 - 0.42968I$ $a = \ 0.20311 + 1.65072I$ $b = -0.98968 + 2.08326I$	$-4.74525 - 7.21929I$	0
$u = \ 1.38628 + 0.47518I$ $a = \ 0.14872 + 1.60907I$ $b = -0.66815 + 1.39929I$	$-8.43963 - 8.97237I$	0
$u = \ 1.38628 - 0.47518I$ $a = \ 0.14872 - 1.60907I$ $b = -0.66815 - 1.39929I$	$-8.43963 + 8.97237I$	0
$u = -0.284970 + 0.195129I$ $a = -3.73768 + 0.96889I$ $b = -0.951565 + 0.974494I$	$-0.01919 - 4.06027I$	$6.09263 + 2.79987I$
$u = -0.284970 - 0.195129I$ $a = -3.73768 - 0.96889I$ $b = -0.951565 - 0.974494I$	$-0.01919 + 4.06027I$	$6.09263 - 2.79987I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.50227+0.73187I$		
$a=-0.344001+0.559432I$	$-6.68223+2.75026I$	0
$b=\ \ 0.322144+0.772354I$		
$u=-1.50227-0.73187I$		
$a=-0.344001-0.559432I$	$-6.68223-2.75026I$	0
$b=\ \ 0.322144-0.772354I$		
$u=\ \ 0.179744+0.051296I$		
$a=\ \ 3.01100+0.69411I$	$3.49795+0.09195I$	$9.24755-2.37966I$
$b=\ \ 1.002060-0.051157I$		
$u=\ \ 0.179744-0.051296I$		
$a=\ \ 3.01100-0.69411I$	$3.49795-0.09195I$	$9.24755+2.37966I$
$b=\ \ 1.002060+0.051157I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{44}-16u^{43}+\cdots-u+1)(u^{164}+5u^{163}+\cdots-49u+1)$
c_2	$(u^{44}+11u^{42}+\cdots+24u+4)$ $\cdot(u^{164}+u^{163}+\cdots+36157964272u+1936765232)$
c_3	$(u^{44}-5u^{43}+\cdots+459u+53)$ $\cdot(u^{164}-45u^{162}+\cdots-4066348387u+426841301)$
c_4	$(u^{44}-u^{43}+\cdots-12u+1)(u^{164}-2u^{163}+\cdots+540u+19)$
c_5	$(u^{44}+2u^{43}+\cdots-3u+1)(u^{164}+11u^{163}+\cdots+9685865u+827737)$
c_6	$(u^{44}-14u^{42}+\cdots-6u+1)(u^{164}-u^{163}+\cdots-2u+1)$
c_7	$(u^{44}+5u^{42}+\cdots+5u+1)$ $\cdot(u^{164}+u^{163}+\cdots+2097860395u+150897161)$
c_8	$(u^{44}-2u^{43}+\cdots+3u+1)(u^{164}+11u^{163}+\cdots+9685865u+827737)$
c_9	$(u^{44}-3u^{43}+\cdots-12u+4)(u^{164}-50u^{162}+\cdots+992u+1808)$
c_{10}	$(u^{44}+u^{43}+\cdots+21u+5)$ $\cdot(u^{164}+6u^{163}+\cdots+1784816067153u+207574985671)$
c_{11}	$(u^{44}-14u^{42}+\cdots+6u+1)(u^{164}-u^{163}+\cdots-2u+1)$
c_{12}	$(u^{44}+3u^{43}+\cdots+12u+4)(u^{164}-50u^{162}+\cdots+992u+1808)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{44}+2y^{43}+\cdots+13y+1)(y^{164}+3y^{163}+\cdots-411y+1)$
c_2	$(y^{44}+22y^{43}+\cdots+160y+16)$ $\cdot(y^{164}+75y^{163}+\cdots+1.76\times10^{20}y+3.75\times10^{18})$
c_3	$(y^{44}-23y^{43}+\cdots-54861y+2809)$ $\cdot(y^{164}-90y^{163}+\cdots-2.04\times10^{19}y+1.82\times10^{17})$
c_4	$(y^{44}+11y^{43}+\cdots-30y+1)(y^{164}+16y^{163}+\cdots-4434y+361)$
c_5, c_8	$(y^{44}+42y^{43}+\cdots+41y+1)$ $\cdot(y^{164}+139y^{163}+\cdots-8776342483355y+685148541169)$
c_6, c_{11}	$(y^{44}-28y^{43}+\cdots-62y+1)(y^{164}-115y^{163}+\cdots-170y+1)$
c_7	$(y^{44}+10y^{43}+\cdots+25y+1)$ $\cdot(y^{164}+59y^{163}+\cdots+634377626274351873y+22769953197859921)$
c_9, c_{12}	$(y^{44}-33y^{43}+\cdots-336y+16)$ $\cdot(y^{164}-100y^{163}+\cdots-153608192y+3268864)$
c_{10}	$(y^{44}-33y^{43}+\cdots+139y+25)$ $\cdot(y^{164}-108y^{163}+\cdots-3.42\times10^{24}y+4.31\times10^{22})$