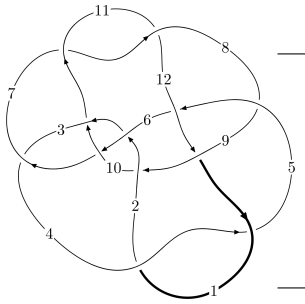
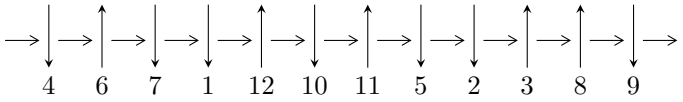
$12a_{0894}$ $(K12a_{0894})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -1.23311 \times 10^{1321} u^{182} - 1.04572 \times 10^{1322} u^{181} + \cdots + 9.42107 \times 10^{1324} b + 6.84728 \times 10^{1326}, \\ & 2.05752 \times 10^{1324} u^{182} - 1.58554 \times 10^{1325} u^{181} + \cdots + 4.70704 \times 10^{1327} a + 3.38310 \times 10^{1329}, \\ & u^{183} - 4u^{182} + \cdots - 183798u - 52461 \rangle \\ I_2^u = \langle & 1.76355 \times 10^{53} u^{46} + 1.58871 \times 10^{54} u^{45} + \cdots + 8.44121 \times 10^{52} b + 1.62815 \times 10^{54}, \\ & - 2.19349 \times 10^{53} u^{46} - 1.93560 \times 10^{54} u^{45} + \cdots + 1.20589 \times 10^{52} a - 1.36685 \times 10^{54}, \\ & u^{47} + 9u^{46} + \cdots + 24u + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 230 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. $\boldsymbol{I_1^u = \langle -1.23 \times 10^{1321} u^{182} - 1.05 \times 10^{1322} u^{181} + \cdots + 9.42 \times 10^{1324} b + 6.85 \times 10^{1326},\ 2.06 \times 10^{1324} u^{182} - 1.59 \times 10^{1325} u^{181} + \cdots + 4.71 \times 10^{1327} a + 3.38 \times 10^{1329},\ u^{183} - 4u^{182} + \cdots - 183798u - 52461 \rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.000437115u^{182} + 0.00336845u^{181} + \cdots - 250.884u - 71.8732 \\ 0.000130888u^{182} + 0.00110998u^{181} + \cdots - 248.349u - 72.6805 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.000331403u^{182} + 0.00448532u^{181} + \cdots - 500.110u - 140.941 \\ 0.0000835116u^{182} + 0.00156077u^{181} + \cdots - 287.666u - 84.3878 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.000306227u^{182} + 0.00447843u^{181} + \cdots - 499.233u - 144.554 \\ 0.000130888u^{182} + 0.00110998u^{181} + \cdots - 248.349u - 72.6805 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.00347163u^{182} + 0.0110800u^{181} + \cdots + 602.397u + 123.260 \\ -0.00167816u^{182} + 0.00558788u^{181} + \cdots + 256.078u + 53.2486 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.00432757u^{182} + 0.0193125u^{181} + \cdots - 98.1824u - 70.2159 \\ -0.00251588u^{182} + 0.0123166u^{181} + \cdots - 224.975u - 97.0449 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.000725381u^{182} + 0.00428746u^{181} + \cdots - 247.036u - 92.9010 \\ -0.000269656u^{182} + 0.00213422u^{181} + \cdots - 237.320u - 81.4091 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.00444480u^{182} + 0.0143521u^{181} + \cdots + 796.155u + 173.803 \\ -0.00259495u^{182} + 0.00946862u^{181} + \cdots + 294.790u + 58.7802 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.00446128u^{182} + 0.0166268u^{181} + \cdots + 464.515u + 79.1026 \\ -0.00310175u^{182} + 0.0118779u^{181} + \cdots + 246.090u + 34.9016 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.00341695u^{182} - 0.0213085u^{181} + \cdots + 1013.78u + 305.421$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{183} + 4u^{182} + \cdots - 183798u + 52461$
c_2	$u^{183} - 2u^{182} + \cdots - 318294u - 40021$
c_3	$u^{183} + u^{182} + \cdots + 2518528u - 157696$
c_5	$u^{183} + 2u^{182} + \cdots - 626724u - 79331$
c_6	$u^{183} - 2u^{182} + \cdots + 1244u + 203$
c_7, c_{11}	$u^{183} - 3u^{182} + \cdots - 13392267u - 702451$
c_8	$7(7u^{183} - 18u^{182} + \cdots + 2.12491 \times 10^7 u + 234650)$
c_9	$7(7u^{183} - 34u^{182} + \cdots + 2.80348 \times 10^7 u - 1352596)$
c_{10}	$7(7u^{183} + u^{182} + \cdots + 354748u + 24677)$
c_{12}	$u^{183} - u^{182} + \cdots + 9088u - 448$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{183} + 142y^{182} + \cdots - 132303001266y - 2752156521$
c_2	$y^{183} + 2y^{182} + \cdots + 214292514570y - 1601680441$
c_3	$y^{183} + 57y^{182} + \cdots - 1746473320448y - 24868028416$
c_5	$y^{183} - 20y^{182} + \cdots + 171767282162y - 6293407561$
c_6	$y^{183} - 6y^{182} + \cdots + 3080998y - 41209$
c_7, c_{11}	$y^{183} - 151y^{182} + \cdots + 52196002203823y - 493437407401$
c_8	$49(49y^{183} + 3834y^{182} + \cdots + 5.29211 \times 10^{14}y - 5.50606 \times 10^{10})$
c_9	$49 \cdot (49y^{183} - 2136y^{182} + \cdots + 122950525332321y - 1829515939216)$
c_{10}	$49(49y^{183} - 2479y^{182} + \cdots + 5.75236 \times 10^{10}y - 6.08954 \times 10^{8})$
c_{12}	$y^{183} + 25y^{182} + \cdots + 604160y - 200704$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.353361 + 0.935758I$ $a = 0.222524 + 0.249072I$ $b = -0.94781 + 1.58440I$	$1.74024 - 1.78318I$	0
$u = 0.353361 - 0.935758I$ $a = 0.222524 - 0.249072I$ $b = -0.94781 - 1.58440I$	$1.74024 + 1.78318I$	0
$u = -0.996758 + 0.017899I$ $a = 0.743697 - 0.766270I$ $b = -0.717105 + 1.009770I$	$4.30464 + 7.27339I$	0
$u = -0.996758 - 0.017899I$ $a = 0.743697 + 0.766270I$ $b = -0.717105 - 1.009770I$	$4.30464 - 7.27339I$	0
$u = -1.005900 + 0.068998I$ $a = 1.010940 - 0.591258I$ $b = -0.755267 + 0.718964I$	$-3.33360 + 9.53239I$	0
$u = -1.005900 - 0.068998I$ $a = 1.010940 + 0.591258I$ $b = -0.755267 - 0.718964I$	$-3.33360 - 9.53239I$	0
$u = -0.878637 + 0.509873I$ $a = -0.346505 - 0.879630I$ $b = 0.594251 + 0.741620I$	$-1.96779 - 0.01153I$	0
$u = -0.878637 - 0.509873I$ $a = -0.346505 + 0.879630I$ $b = 0.594251 - 0.741620I$	$-1.96779 + 0.01153I$	0
$u = -0.263132 + 0.999119I$ $a = 0.362798 + 0.310372I$ $b = -1.81846 + 0.02694I$	$4.99563 + 4.29408I$	0
$u = -0.263132 - 0.999119I$ $a = 0.362798 - 0.310372I$ $b = -1.81846 - 0.02694I$	$4.99563 - 4.29408I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.946198 + 0.066457I$ $a = 0.952445 + 0.634107I$ $b = -0.600046 - 1.133960I$	$2.76487 - 5.29634I$	0
$u = 0.946198 - 0.066457I$ $a = 0.952445 - 0.634107I$ $b = -0.600046 + 1.133960I$	$2.76487 + 5.29634I$	0
$u = 0.366480 + 0.990925I$ $a = 1.57808 - 0.46897I$ $b = -0.497082 - 0.728812I$	$-0.25857 - 4.52320I$	0
$u = 0.366480 - 0.990925I$ $a = 1.57808 + 0.46897I$ $b = -0.497082 + 0.728812I$	$-0.25857 + 4.52320I$	0
$u = 1.057230 + 0.043906I$ $a = -0.762989 - 0.253049I$ $b = 0.848577 + 0.622499I$	$-3.58567 - 1.82509I$	0
$u = 1.057230 - 0.043906I$ $a = -0.762989 + 0.253049I$ $b = 0.848577 - 0.622499I$	$-3.58567 + 1.82509I$	0
$u = -0.220734 + 0.913464I$ $a = -0.52460 - 1.34256I$ $b = 0.397501 - 1.207380I$	$-0.85432 + 4.03337I$	0
$u = -0.220734 - 0.913464I$ $a = -0.52460 + 1.34256I$ $b = 0.397501 + 1.207380I$	$-0.85432 - 4.03337I$	0
$u = 1.048520 + 0.168591I$ $a = 0.963110 + 0.345834I$ $b = -0.673624 - 0.515132I$	$-3.37727 - 2.33210I$	0
$u = 1.048520 - 0.168591I$ $a = 0.963110 - 0.345834I$ $b = -0.673624 + 0.515132I$	$-3.37727 + 2.33210I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.218643 + 0.911081I$ $a = 0.460486 + 0.578131I$ $b = -0.325169 + 1.101020I$	$1.79037 - 1.85431I$	0
$u = 0.218643 - 0.911081I$ $a = 0.460486 - 0.578131I$ $b = -0.325169 - 1.101020I$	$1.79037 + 1.85431I$	0
$u = -0.234778 + 0.906789I$ $a = 1.66370 - 0.15218I$ $b = -0.569059 + 0.991582I$	$6.87653 + 1.24248I$	0
$u = -0.234778 - 0.906789I$ $a = 1.66370 + 0.15218I$ $b = -0.569059 - 0.991582I$	$6.87653 - 1.24248I$	0
$u = -0.130337 + 1.056720I$ $a = 1.24837 + 0.79566I$ $b = -0.64933 + 1.40979I$	$7.56133 + 5.13956I$	0
$u = -0.130337 - 1.056720I$ $a = 1.24837 - 0.79566I$ $b = -0.64933 - 1.40979I$	$7.56133 - 5.13956I$	0
$u = 0.102430 + 1.061440I$ $a = -0.129601 - 0.937600I$ $b = 0.25067 - 2.05061I$	$2.55597 - 0.05704I$	0
$u = 0.102430 - 1.061440I$ $a = -0.129601 + 0.937600I$ $b = 0.25067 + 2.05061I$	$2.55597 + 0.05704I$	0
$u = -0.081149 + 1.064730I$ $a = 0.251050 + 1.350510I$ $b = -0.15888 + 1.75753I$	$1.88430 + 6.51448I$	0
$u = -0.081149 - 1.064730I$ $a = 0.251050 - 1.350510I$ $b = -0.15888 - 1.75753I$	$1.88430 - 6.51448I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.788921+0.480921I$ $a=-0.692194-0.773701I$ $b=\ \ 1.07762-0.95301I$	$2.43066-7.71293I$	0
$u=-0.788921-0.480921I$ $a=-0.692194+0.773701I$ $b=\ \ 1.07762+0.95301I$	$2.43066+7.71293I$	0
$u=\ \ 0.716335+0.569837I$ $a=-1.027840+0.274184I$ $b=\ \ 0.695669+1.130800I$	$-2.10543-4.06058I$	0
$u=\ \ 0.716335-0.569837I$ $a=-1.027840-0.274184I$ $b=\ \ 0.695669-1.130800I$	$-2.10543+4.06058I$	0
$u=\ \ 0.047368+1.087940I$ $a=-1.128930-0.832709I$ $b=\ \ 0.611281-1.044630I$	$2.46520+1.29570I$	0
$u=\ \ 0.047368-1.087940I$ $a=-1.128930+0.832709I$ $b=\ \ 0.611281+1.044630I$	$2.46520-1.29570I$	0
$u=-0.939429+0.586393I$ $a=\ \ 0.404949-0.510478I$ $b=-0.128717+0.660503I$	$0.98787-2.24903I$	0
$u=-0.939429-0.586393I$ $a=\ \ 0.404949+0.510478I$ $b=-0.128717-0.660503I$	$0.98787+2.24903I$	0
$u=\ \ 0.300353+0.838277I$ $a=\ \ 1.68395+0.66185I$ $b=-0.614944-0.759039I$	$5.99125-3.44755I$	0
$u=\ \ 0.300353-0.838277I$ $a=\ \ 1.68395-0.66185I$ $b=-0.614944+0.759039I$	$5.99125+3.44755I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.887469$ $a = 0.549715$ $b = 0.0101625$	-1.71845	0
$u = 0.083492 + 1.116180I$ $a = 0.777356 - 0.469521I$ $b = -1.20757 - 1.67865I$	$7.44089 - 4.05881I$	0
$u = 0.083492 - 1.116180I$ $a = 0.777356 + 0.469521I$ $b = -1.20757 + 1.67865I$	$7.44089 + 4.05881I$	0
$u = -0.326054 + 1.075000I$ $a = 1.32904 + 0.91384I$ $b = -0.487753 + 0.736488I$	$-0.19557 - 1.78627I$	0
$u = -0.326054 - 1.075000I$ $a = 1.32904 - 0.91384I$ $b = -0.487753 - 0.736488I$	$-0.19557 + 1.78627I$	0
$u = 0.798489 + 0.356338I$ $a = 0.695522 - 0.796183I$ $b = -0.246041 + 0.425888I$	$-2.16763 + 0.10355I$	0
$u = 0.798489 - 0.356338I$ $a = 0.695522 + 0.796183I$ $b = -0.246041 - 0.425888I$	$-2.16763 - 0.10355I$	0
$u = -0.073928 + 1.131220I$ $a = -1.59262 + 0.61619I$ $b = 0.529033 + 0.585016I$	$2.24288 + 4.34518I$	0
$u = -0.073928 - 1.131220I$ $a = -1.59262 - 0.61619I$ $b = 0.529033 - 0.585016I$	$2.24288 - 4.34518I$	0
$u = 0.004398 + 1.140070I$ $a = -1.49668 - 0.93345I$ $b = 0.009395 - 0.924953I$	$8.34632 - 0.46353I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.004398 - 1.140070I$ $a = -1.49668 + 0.93345I$ $b = 0.009395 + 0.924953I$	$8.34632 + 0.46353I$	0
$u = -0.269624 + 1.111210I$ $a = 0.338858 + 0.100705I$ $b = -1.35123 - 0.91146I$	$0.41612 + 7.30003I$	0
$u = -0.269624 - 1.111210I$ $a = 0.338858 - 0.100705I$ $b = -1.35123 + 0.91146I$	$0.41612 - 7.30003I$	0
$u = 0.536428 + 0.653241I$ $a = -0.141720 + 0.153670I$ $b = 0.916447 - 0.227859I$	$-1.77674 - 0.85721I$	0
$u = 0.536428 - 0.653241I$ $a = -0.141720 - 0.153670I$ $b = 0.916447 + 0.227859I$	$-1.77674 + 0.85721I$	0
$u = -0.484167 + 1.050870I$ $a = -0.457670 - 0.232103I$ $b = 1.92140 + 0.11159I$	$4.17759 + 12.48690I$	0
$u = -0.484167 - 1.050870I$ $a = -0.457670 + 0.232103I$ $b = 1.92140 - 0.11159I$	$4.17759 - 12.48690I$	0
$u = -0.045426 + 1.157010I$ $a = -1.35060 + 1.31535I$ $b = -0.025880 + 0.733816I$	$8.21427 + 2.89848I$	0
$u = -0.045426 - 1.157010I$ $a = -1.35060 - 1.31535I$ $b = -0.025880 - 0.733816I$	$8.21427 - 2.89848I$	0
$u = 0.422818 + 0.724471I$ $a = -0.766881 - 0.223474I$ $b = 1.45001 - 1.15461I$	$1.88033 - 1.35372I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.422818 - 0.724471I$ $a = -0.766881 + 0.223474I$ $b = 1.45001 + 1.15461I$	$1.88033 + 1.35372I$	0
$u = 0.831342$ $a = 1.33235$ $b = -0.948288$	-0.483949	0
$u = 0.028257 + 1.174870I$ $a = -0.261634 + 0.021606I$ $b = 0.963858 + 0.991946I$	$2.99812 - 1.63320I$	0
$u = 0.028257 - 1.174870I$ $a = -0.261634 - 0.021606I$ $b = 0.963858 - 0.991946I$	$2.99812 + 1.63320I$	0
$u = -0.458504 + 1.089010I$ $a = -1.297240 - 0.413359I$ $b = 0.777085 - 1.091510I$	$-0.02440 + 4.89286I$	0
$u = -0.458504 - 1.089010I$ $a = -1.297240 + 0.413359I$ $b = 0.777085 + 1.091510I$	$-0.02440 - 4.89286I$	0
$u = 0.849201 + 0.825469I$ $a = 0.552684 - 0.426529I$ $b = -1.31940 - 0.63872I$	$0.09413 - 3.09571I$	0
$u = 0.849201 - 0.825469I$ $a = 0.552684 + 0.426529I$ $b = -1.31940 + 0.63872I$	$0.09413 + 3.09571I$	0
$u = -0.070119 + 1.205630I$ $a = -0.980071 - 0.294533I$ $b = -0.113218 - 0.931316I$	$8.07248 - 3.44277I$	0
$u = -0.070119 - 1.205630I$ $a = -0.980071 + 0.294533I$ $b = -0.113218 + 0.931316I$	$8.07248 + 3.44277I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.190972+1.193950I$ $a=\ 1.08866-1.22515I$ $b=\ 0.081944-0.832532I$	$7.83745+11.70160I$	0
$u=-0.190972-1.193950I$ $a=\ 1.08866+1.22515I$ $b=\ 0.081944+0.832532I$	$7.83745-11.70160I$	0
$u=\ 0.368971+1.165730I$ $a=\ 0.630338-0.408816I$ $b=-1.027180-0.081457I$	$3.11301-4.28028I$	0
$u=\ 0.368971-1.165730I$ $a=\ 0.630338+0.408816I$ $b=-1.027180+0.081457I$	$3.11301+4.28028I$	0
$u=-0.244356+0.737492I$ $a=\ 0.108667+0.550986I$ $b=-0.364932-1.178350I$	$0.96823-5.42523I$	0
$u=-0.244356-0.737492I$ $a=\ 0.108667-0.550986I$ $b=-0.364932+1.178350I$	$0.96823+5.42523I$	0
$u=-0.083731+1.247490I$ $a=-0.406869+1.134010I$ $b=-0.230124+0.845856I$	$7.69278+0.35419I$	0
$u=-0.083731-1.247490I$ $a=-0.406869-1.134010I$ $b=-0.230124-0.845856I$	$7.69278-0.35419I$	0
$u=\ 0.463139+0.589493I$ $a=\ 0.12131+1.53874I$ $b=\ 0.343879+0.860642I$	$1.81954-2.23994I$	0
$u=\ 0.463139-0.589493I$ $a=\ 0.12131-1.53874I$ $b=\ 0.343879-0.860642I$	$1.81954+2.23994I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.155664 + 1.251670I$ $a = 1.061570 - 0.317033I$ $b = -1.010970 - 0.816892I$	$4.45230 - 5.21175I$	0
$u = 0.155664 - 1.251670I$ $a = 1.061570 + 0.317033I$ $b = -1.010970 + 0.816892I$	$4.45230 + 5.21175I$	0
$u = -1.190140 + 0.438550I$ $a = -0.512550 + 0.493114I$ $b = 0.770570 - 0.854996I$	$4.52957 - 3.86574I$	0
$u = -1.190140 - 0.438550I$ $a = -0.512550 - 0.493114I$ $b = 0.770570 + 0.854996I$	$4.52957 + 3.86574I$	0
$u = -0.286880 + 1.240540I$ $a = 0.959494 + 0.261179I$ $b = -0.601745 + 1.060420I$	$6.22217 + 0.94119I$	0
$u = -0.286880 - 1.240540I$ $a = 0.959494 - 0.261179I$ $b = -0.601745 - 1.060420I$	$6.22217 - 0.94119I$	0
$u = -0.264929 + 1.260310I$ $a = -1.163140 - 0.628802I$ $b = 0.895777 - 0.921002I$	$2.82705 + 5.02590I$	0
$u = -0.264929 - 1.260310I$ $a = -1.163140 + 0.628802I$ $b = 0.895777 + 0.921002I$	$2.82705 - 5.02590I$	0
$u = 0.206855 + 1.281810I$ $a = 0.849259 + 1.000950I$ $b = -0.011487 + 0.895548I$	$5.91223 - 3.80922I$	0
$u = 0.206855 - 1.281810I$ $a = 0.849259 - 1.000950I$ $b = -0.011487 - 0.895548I$	$5.91223 + 3.80922I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.656234 + 1.121240I$ $a = 0.464258 - 0.265021I$ $b = -0.543883 - 0.357689I$	$-0.45448 - 3.59651I$	0
$u = 0.656234 - 1.121240I$ $a = 0.464258 + 0.265021I$ $b = -0.543883 + 0.357689I$	$-0.45448 + 3.59651I$	0
$u = -0.691619 + 0.056259I$ $a = 0.233198 + 1.275080I$ $b = -0.566991 - 0.939656I$	$5.89009 - 2.09906I$	0
$u = -0.691619 - 0.056259I$ $a = 0.233198 - 1.275080I$ $b = -0.566991 + 0.939656I$	$5.89009 + 2.09906I$	0
$u = 1.293840 + 0.185622I$ $a = 0.555880 + 0.262877I$ $b = -0.957850 - 1.029210I$	$1.05501 - 4.51121I$	0
$u = 1.293840 - 0.185622I$ $a = 0.555880 - 0.262877I$ $b = -0.957850 + 1.029210I$	$1.05501 + 4.51121I$	0
$u = -0.198799 + 1.294160I$ $a = -1.40590 - 0.71544I$ $b = 0.697979 - 0.497053I$	$2.00407 + 5.44742I$	0
$u = -0.198799 - 1.294160I$ $a = -1.40590 + 0.71544I$ $b = 0.697979 + 0.497053I$	$2.00407 - 5.44742I$	0
$u = 0.178195 + 1.312730I$ $a = -0.231596 + 0.088504I$ $b = -0.190463 + 1.292530I$	$6.87494 + 1.26054I$	0
$u = 0.178195 - 1.312730I$ $a = -0.231596 - 0.088504I$ $b = -0.190463 - 1.292530I$	$6.87494 - 1.26054I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.493813 + 1.233590I$ $a = -1.112530 - 0.274480I$ $b = -0.066058 + 0.814084I$	$7.85689 - 0.20204I$	0
$u = 0.493813 - 1.233590I$ $a = -1.112530 + 0.274480I$ $b = -0.066058 - 0.814084I$	$7.85689 + 0.20204I$	0
$u = 0.829346 + 1.076770I$ $a = -1.046620 - 0.031456I$ $b = 0.849883 + 1.096060I$	$2.89341 - 8.99267I$	0
$u = 0.829346 - 1.076770I$ $a = -1.046620 + 0.031456I$ $b = 0.849883 - 1.096060I$	$2.89341 + 8.99267I$	0
$u = 0.308675 + 1.328600I$ $a = 0.884486 - 0.411016I$ $b = -0.508356 - 0.440787I$	$3.21363 - 3.91201I$	0
$u = 0.308675 - 1.328600I$ $a = 0.884486 + 0.411016I$ $b = -0.508356 + 0.440787I$	$3.21363 + 3.91201I$	0
$u = -1.368980 + 0.132745I$ $a = -0.637508 + 0.441709I$ $b = 0.828747 - 0.970265I$	$2.7675 + 14.4661I$	0
$u = -1.368980 - 0.132745I$ $a = -0.637508 - 0.441709I$ $b = 0.828747 + 0.970265I$	$2.7675 - 14.4661I$	0
$u = 0.523848 + 1.278390I$ $a = -0.391147 + 0.071671I$ $b = 0.842500 + 0.277597I$	$0.19061 - 3.72591I$	0
$u = 0.523848 - 1.278390I$ $a = -0.391147 - 0.071671I$ $b = 0.842500 - 0.277597I$	$0.19061 + 3.72591I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.546828+1.272320I$ $a=\ \ 0.920914+0.277614I$ $b=-0.88050+1.42443I$	$9.11955+7.05412I$	0
$u=-0.546828-1.272320I$ $a=\ \ 0.920914-0.277614I$ $b=-0.88050-1.42443I$	$9.11955-7.05412I$	0
$u=-0.601513+1.251720I$ $a=-0.810433+0.338062I$ $b=-0.028923-0.898449I$	$8.95796+2.66110I$	0
$u=-0.601513-1.251720I$ $a=-0.810433-0.338062I$ $b=-0.028923+0.898449I$	$8.95796-2.66110I$	0
$u=-0.291852+0.533192I$ $a=-0.476273-0.650036I$ $b=\ \ 0.922349+0.546882I$	$-1.65296-1.42972I$	0
$u=-0.291852-0.533192I$ $a=-0.476273+0.650036I$ $b=\ \ 0.922349-0.546882I$	$-1.65296+1.42972I$	0
$u=\ \ 0.207557+1.393540I$ $a=-0.811635+0.504360I$ $b=\ \ 0.96071+1.54827I$	$10.5901-11.0088I$	0
$u=\ \ 0.207557-1.393540I$ $a=-0.811635-0.504360I$ $b=\ \ 0.96071-1.54827I$	$10.5901+11.0088I$	0
$u=\ \ 0.31823+1.38161I$ $a=-1.004210+0.773245I$ $b=\ \ 0.513770+1.087590I$	$3.63117-7.44096I$	0
$u=\ \ 0.31823-1.38161I$ $a=-1.004210-0.773245I$ $b=\ \ 0.513770-1.087590I$	$3.63117+7.44096I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.63747+1.28820I$ $a=-0.800443+0.034085I$ $b=\ \ 0.554279-0.977003I$	$3.61984+8.63450I$	0
$u=-0.63747-1.28820I$ $a=-0.800443-0.034085I$ $b=\ \ 0.554279+0.977003I$	$3.61984-8.63450I$	0
$u=-0.49310+1.35405I$ $a=\ \ 1.077770+0.430069I$ $b=-0.84465+1.35885I$	$8.6174+12.6237I$	0
$u=-0.49310-1.35405I$ $a=\ \ 1.077770-0.430069I$ $b=-0.84465-1.35885I$	$8.6174-12.6237I$	0
$u=-0.425594+0.360680I$ $a=\ \ 1.50501+1.75000I$ $b=-0.368181-0.547478I$	$-2.41132+5.07426I$	0
$u=-0.425594-0.360680I$ $a=\ \ 1.50501-1.75000I$ $b=-0.368181+0.547478I$	$-2.41132-5.07426I$	0
$u=\ \ 0.54654+1.34215I$ $a=-0.852298+0.457680I$ $b=\ \ 0.82270+1.15184I$	$0.67863-7.51832I$	0
$u=\ \ 0.54654-1.34215I$ $a=-0.852298-0.457680I$ $b=\ \ 0.82270-1.15184I$	$0.67863+7.51832I$	0
$u=-0.46572+1.37486I$ $a=\ \ 1.088400+0.481454I$ $b=-0.880272+1.047570I$	$1.2230+14.7692I$	0
$u=-0.46572-1.37486I$ $a=\ \ 1.088400-0.481454I$ $b=-0.880272-1.047570I$	$1.2230-14.7692I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.48083 + 1.38202I$ $a = 1.099830 - 0.557557I$ $b = -0.66938 - 1.37482I$	$7.35002 - 10.49740I$	0
$u = 0.48083 - 1.38202I$ $a = 1.099830 + 0.557557I$ $b = -0.66938 + 1.37482I$	$7.35002 + 10.49740I$	0
$u = -0.456276 + 0.281124I$ $a = 1.13697 + 1.08264I$ $b = -1.015490 + 0.654376I$	$3.16140 - 1.26598I$	0
$u = -0.456276 - 0.281124I$ $a = 1.13697 - 1.08264I$ $b = -1.015490 - 0.654376I$	$3.16140 + 1.26598I$	0
$u = 0.375285 + 0.360544I$ $a = 0.696456 + 1.103150I$ $b = 0.425266 + 1.257700I$	$1.18959 - 1.61842I$	$-3.72926 - 3.76453I$
$u = 0.375285 - 0.360544I$ $a = 0.696456 - 1.103150I$ $b = 0.425266 - 1.257700I$	$1.18959 + 1.61842I$	$-3.72926 + 3.76453I$
$u = -0.35228 + 1.43722I$ $a = -0.744852 - 0.439951I$ $b = 0.89537 - 1.59751I$	$10.64380 + 1.09697I$	0
$u = -0.35228 - 1.43722I$ $a = -0.744852 + 0.439951I$ $b = 0.89537 + 1.59751I$	$10.64380 - 1.09697I$	0
$u = 0.48081 + 1.41610I$ $a = 1.028570 - 0.445882I$ $b = -0.749512 - 0.926552I$	$1.58277 - 7.78025I$	0
$u = 0.48081 - 1.41610I$ $a = 1.028570 + 0.445882I$ $b = -0.749512 + 0.926552I$	$1.58277 + 7.78025I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.34636 + 1.45556I$ $a = -0.836641 + 0.539569I$ $b = 0.034310 + 0.750640I$	$7.24389 - 3.12585I$	0
$u = 0.34636 - 1.45556I$ $a = -0.836641 - 0.539569I$ $b = 0.034310 - 0.750640I$	$7.24389 + 3.12585I$	0
$u = -0.034004 + 0.495683I$ $a = 1.44190 - 0.19639I$ $b = 0.017645 + 0.840471I$	$0.94473 - 1.50150I$	$2.46856 + 1.66894I$
$u = -0.034004 - 0.495683I$ $a = 1.44190 + 0.19639I$ $b = 0.017645 - 0.840471I$	$0.94473 + 1.50150I$	$2.46856 - 1.66894I$
$u = 0.55616 + 1.41518I$ $a = 0.873077 - 0.519817I$ $b = -0.77779 - 1.52676I$	$5.94080 - 10.81550I$	0
$u = 0.55616 - 1.41518I$ $a = 0.873077 + 0.519817I$ $b = -0.77779 + 1.52676I$	$5.94080 + 10.81550I$	0
$u = -0.469587 + 0.073136I$ $a = -1.47135 - 1.51583I$ $b = 0.630400 + 0.661731I$	$-0.86854 - 2.10969I$	$4.42524 + 4.52973I$
$u = -0.469587 - 0.073136I$ $a = -1.47135 + 1.51583I$ $b = 0.630400 - 0.661731I$	$-0.86854 + 2.10969I$	$4.42524 - 4.52973I$
$u = 1.41738 + 0.57379I$ $a = -0.153285 + 0.548614I$ $b = 0.495754 - 0.741753I$	$0.99806 + 1.41438I$	0
$u = 1.41738 - 0.57379I$ $a = -0.153285 - 0.548614I$ $b = 0.495754 + 0.741753I$	$0.99806 - 1.41438I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.470440$ $a = -2.33027$ $b = -0.304619$	2.03675	6.17570
$u = \quad 1.48832 + 0.35775I$ $a = -0.560296 - 0.288071I$ $b = \quad 0.907569 + 0.868077I$	$-0.00701 - 5.30851I$	0
$u = \quad 1.48832 - 0.35775I$ $a = -0.560296 + 0.288071I$ $b = \quad 0.907569 - 0.868077I$	$-0.00701 + 5.30851I$	0
$u = -0.15568 + 1.54470I$ $a = -0.226865 + 0.132028I$ $b = \quad 0.073627 - 0.359822I$	$1.16743 - 4.27487I$	0
$u = -0.15568 - 1.54470I$ $a = -0.226865 - 0.132028I$ $b = \quad 0.073627 + 0.359822I$	$1.16743 + 4.27487I$	0
$u = \quad 0.06398 + 1.55216I$ $a = \quad 0.452459 + 1.058360I$ $b = -0.038747 + 0.717804I$	$8.95580 - 3.93465I$	0
$u = \quad 0.06398 - 1.55216I$ $a = \quad 0.452459 - 1.058360I$ $b = -0.038747 - 0.717804I$	$8.95580 + 3.93465I$	0
$u = -0.91928 + 1.25515I$ $a = -0.336206 + 0.261611I$ $b = -0.318335 - 0.758397I$	$7.35727 - 1.94149I$	0
$u = -0.91928 - 1.25515I$ $a = -0.336206 - 0.261611I$ $b = -0.318335 + 0.758397I$	$7.35727 + 1.94149I$	0
$u = -0.58298 + 1.46379I$ $a = -0.984238 - 0.396053I$ $b = \quad 0.86747 - 1.38624I$	$7.7546 + 21.1463I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.58298-1.46379I$ $a=-0.984238+0.396053I$ $b=\ \ 0.86747+1.38624I$	$7.7546-21.1463I$	0
$u=-0.02295+1.58260I$ $a=\ \ 0.319312-0.749462I$ $b=-0.028405-1.010110I$	$9.91856-4.98468I$	0
$u=-0.02295-1.58260I$ $a=\ \ 0.319312+0.749462I$ $b=-0.028405+1.010110I$	$9.91856+4.98468I$	0
$u=-0.69741+1.45166I$ $a=\ \ 0.700303-0.180472I$ $b=\ \ 0.020734+0.838960I$	$7.86698+11.24480I$	0
$u=-0.69741-1.45166I$ $a=\ \ 0.700303+0.180472I$ $b=\ \ 0.020734-0.838960I$	$7.86698-11.24480I$	0
$u=-0.374189+0.055407I$ $a=-2.79072-2.34512I$ $b=\ \ 0.457221+0.301242I$	$-1.91309-3.12150I$	$-20.6911+8.9993I$
$u=-0.374189-0.055407I$ $a=-2.79072+2.34512I$ $b=\ \ 0.457221-0.301242I$	$-1.91309+3.12150I$	$-20.6911-8.9993I$
$u=\ \ 0.58065+1.54011I$ $a=-0.871343+0.379238I$ $b=\ \ 0.89516+1.39519I$	$5.81411-12.32850I$	0
$u=\ \ 0.58065-1.54011I$ $a=-0.871343-0.379238I$ $b=\ \ 0.89516-1.39519I$	$5.81411+12.32850I$	0
$u=-0.150828+0.306526I$ $a=\ \ 0.77410+3.02019I$ $b=-0.211462+1.202300I$	$-2.10477-4.79766I$	$-7.52661+5.11426I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.150828-0.306526I$ $a=\ \ 0.77410-3.02019I$ $b=-0.211462-1.202300I$	$-2.10477+4.79766I$	$-7.52661-5.11426I$
$u=\ \ 0.11397+1.67332I$ $a=\ \ 0.273705-0.239989I$ $b=-0.115500-0.930195I$	$9.90076-4.63397I$	0
$u=\ \ 0.11397-1.67332I$ $a=\ \ 0.273705+0.239989I$ $b=-0.115500+0.930195I$	$9.90076+4.63397I$	0
$u=-0.164721+0.264296I$ $a=-3.21591+1.73671I$ $b=\ \ 0.780301+1.007680I$	$4.87250-9.94040I$	$2.63196+6.22883I$
$u=-0.164721-0.264296I$ $a=-3.21591-1.73671I$ $b=\ \ 0.780301-1.007680I$	$4.87250+9.94040I$	$2.63196-6.22883I$
$u=\ \ 0.083894+0.289067I$ $a=\ \ 4.37841+0.56054I$ $b=-0.406232-0.423936I$	$-0.07891-3.88197I$	$-1.3587+14.3171I$
$u=\ \ 0.083894-0.289067I$ $a=\ \ 4.37841-0.56054I$ $b=-0.406232+0.423936I$	$-0.07891+3.88197I$	$-1.3587-14.3171I$
$u=\ \ 0.187506+0.134908I$ $a=-2.74804-2.39125I$ $b=-0.771357+0.827286I$	$5.08411+2.99986I$	$2.46902-3.35514I$
$u=\ \ 0.187506-0.134908I$ $a=-2.74804+2.39125I$ $b=-0.771357-0.827286I$	$5.08411-2.99986I$	$2.46902+3.35514I$
$u=\ \ 0.53513+1.72559I$ $a=\ \ 0.482560-0.101640I$ $b=-0.023260-0.648486I$	$4.79715-4.03069I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.53513 - 1.72559I$ $a = 0.482560 + 0.101640I$ $b = -0.023260 + 0.648486I$	$4.79715 + 4.03069I$	0
$u = -0.60557 + 2.39600I$ $a = 0.1028890 + 0.0254360I$ $b = 0.121571 + 0.563880I$	$7.84421 - 5.44128I$	0
$u = -0.60557 - 2.39600I$ $a = 0.1028890 - 0.0254360I$ $b = 0.121571 - 0.563880I$	$7.84421 + 5.44128I$	0

II. $\boldsymbol{I_2^u = \langle 1.76 \times 10^{53} u^{46} + 1.59 \times 10^{54} u^{45} + \cdots + 8.44 \times 10^{52} b + 1.63 \times 10^{54},\ -2.19 \times 10^{53} u^{46} - 1.94 \times 10^{54} u^{45} + \cdots + 1.21 \times 10^{52} a - 1.37 \times 10^{54},\ u^{47} + 9u^{46} + \cdots + 24u + 1 \rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 18.1898u^{46} + 160.513u^{45} + \cdots + 1984.23u + 113.348 \\ -2.08922u^{46} - 18.8209u^{45} + \cdots - 336.745u - 19.2881 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 18.1839u^{46} + 160.159u^{45} + \cdots + 1927.72u + 110.322 \\ -1.96892u^{46} - 17.5786u^{45} + \cdots - 287.436u - 16.5614 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 16.1006u^{46} + 141.692u^{45} + \cdots + 1647.48u + 94.0600 \\ -2.08922u^{46} - 18.8209u^{45} + \cdots - 336.745u - 19.2881 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 41.8893u^{46} + 371.234u^{45} + \cdots + 5127.66u + 300.236 \\ -3.64878u^{46} - 32.4488u^{45} + \cdots - 444.712u - 27.1681 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -24.0520u^{46} - 213.005u^{45} + \cdots - 3249.44u - 202.035 \\ 0.0728393u^{46} + 0.672591u^{45} + \cdots - 12.4387u - 0.305149 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -38.5977u^{46} - 343.538u^{45} + \cdots - 5027.52u - 299.890 \\ 1.80052u^{46} + 15.7069u^{45} + \cdots + 182.144u + 12.4621 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.711628u^{46} + 6.46854u^{45} + \cdots + 14.0663u - 6.92274 \\ 0.406479u^{46} + 3.64936u^{45} + \cdots - 14.7993u - 1.80765 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 34.5158u^{46} + 305.417u^{45} + \cdots + 3895.57u + 221.805 \\ -2.93397u^{46} - 26.3161u^{45} + \cdots - 425.667u - 25.6595 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -6.68888u^{46} - 59.2167u^{45} + \cdots - 890.293u - 53.7964$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{47} - 9u^{46} + \cdots + 24u - 1$
c_2	$u^{47} + u^{46} + \cdots - 2u + 1$
c_3	$u^{47} + 18u^{45} + \cdots + 17u - 7$
c_4	$u^{47} + 9u^{46} + \cdots + 24u + 1$
c_5	$u^{47} + 3u^{46} + \cdots - 54u + 7$
c_6	$u^{47} + 3u^{46} + \cdots + 8u - 7$
c_7	$u^{47} + 2u^{46} + \cdots + 225u + 31$
c_8	$7(7u^{47} - 19u^{46} + \cdots + u + 3)$
c_9	$7(7u^{47} + 3u^{46} + \cdots + 235u + 101)$
c_{10}	$7(7u^{47} - 4u^{46} + \cdots - 2u + 1)$
c_{11}	$u^{47} - 2u^{46} + \cdots + 225u - 31$
c_{12}	$u^{47} - 2u^{46} + \cdots + 8u - 7$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{47} + 45y^{46} + \cdots + 54y - 1$
c_2	$y^{47} + 21y^{46} + \cdots + 6y - 1$
c_3	$y^{47} + 36y^{46} + \cdots - 957y - 49$
c_5	$y^{47} - y^{46} + \cdots + 18y - 49$
c_6	$y^{47} + 5y^{46} + \cdots + 666y - 49$
c_7, c_{11}	$y^{47} - 36y^{46} + \cdots + 7163y - 961$
c_8	$49(49y^{47} + 1557y^{46} + \cdots - 89y - 9)$
c_9	$49(49y^{47} - 933y^{46} + \cdots + 67547y - 10201)$
c_{10}	$49(49y^{47} - 492y^{46} + \cdots + 6y - 1)$
c_{12}	$y^{47} + 12y^{46} + \cdots + 890y - 49$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.412018+0.910241I$ $a=\ \ 1.42252-0.66754I$ $b=-0.558060+0.849328I$	$6.54125+1.94652I$	0
$u=-0.412018-0.910241I$ $a=\ \ 1.42252+0.66754I$ $b=-0.558060-0.849328I$	$6.54125-1.94652I$	0
$u=-1.01812$ $a=\ \ 0.484375$ $b=\ \ 0.550396$	0.996416	0
$u=\ \ 0.223770+0.933688I$ $a=\ \ 1.40464+0.47122I$ $b=-0.780531-0.672186I$	$6.48800-3.47650I$	0
$u=\ \ 0.223770-0.933688I$ $a=\ \ 1.40464-0.47122I$ $b=-0.780531+0.672186I$	$6.48800+3.47650I$	0
$u=-0.705497+0.632108I$ $a=-0.971516-0.328892I$ $b=\ \ 0.775536-0.758515I$	$-2.16006+2.92152I$	0
$u=-0.705497-0.632108I$ $a=-0.971516+0.328892I$ $b=\ \ 0.775536+0.758515I$	$-2.16006-2.92152I$	0
$u=-0.989830+0.380257I$ $a=-0.392650-0.734119I$ $b=\ \ 0.471294+0.646379I$	$-2.02922-1.05222I$	0
$u=-0.989830-0.380257I$ $a=-0.392650+0.734119I$ $b=\ \ 0.471294-0.646379I$	$-2.02922+1.05222I$	0
$u=\ \ 0.135894+1.069300I$ $a=\ \ 0.985232-0.461365I$ $b=-1.01602-1.43939I$	$6.87959-4.14294I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.135894 - 1.069300I$ $a = 0.985232 + 0.461365I$ $b = -1.01602 + 1.43939I$	$6.87959 + 4.14294I$	0
$u = 0.089327 + 0.898687I$ $a = -0.18193 + 1.57892I$ $b = -0.093583 + 1.280180I$	$-0.92228 - 5.25356I$	0
$u = 0.089327 - 0.898687I$ $a = -0.18193 - 1.57892I$ $b = -0.093583 - 1.280180I$	$-0.92228 + 5.25356I$	0
$u = -0.240473 + 0.863597I$ $a = -0.007559 - 0.745241I$ $b = -0.02111 - 2.30870I$	$1.44973 + 1.40069I$	0
$u = -0.240473 - 0.863597I$ $a = -0.007559 + 0.745241I$ $b = -0.02111 + 2.30870I$	$1.44973 - 1.40069I$	0
$u = 0.520102 + 0.987359I$ $a = -0.781632 - 0.361785I$ $b = 1.161450 + 0.628275I$	$5.23817 - 11.80400I$	0
$u = 0.520102 - 0.987359I$ $a = -0.781632 + 0.361785I$ $b = 1.161450 - 0.628275I$	$5.23817 + 11.80400I$	0
$u = 0.038793 + 1.181960I$ $a = -1.18653 + 0.84951I$ $b = -0.076391 + 0.811011I$	$7.81681 + 2.19589I$	0
$u = 0.038793 - 1.181960I$ $a = -1.18653 - 0.84951I$ $b = -0.076391 - 0.811011I$	$7.81681 - 2.19589I$	0
$u = 0.341055 + 0.741938I$ $a = -1.42904 - 0.17709I$ $b = 0.226596 + 0.299849I$	$0.11203 + 3.05747I$	$0. - 3.40124I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.341055 - 0.741938I$ $a = -1.42904 + 0.17709I$ $b = 0.226596 - 0.299849I$	$0.11203 - 3.05747I$	$0. + 3.40124I$
$u = -0.553362 + 0.595850I$ $a = -0.107835 + 0.839501I$ $b = -0.53642 + 1.31016I$	$1.22743 + 2.05951I$	$0. - 10.30717I$
$u = -0.553362 - 0.595850I$ $a = -0.107835 - 0.839501I$ $b = -0.53642 - 1.31016I$	$1.22743 - 2.05951I$	$0. + 10.30717I$
$u = 0.182998 + 1.249280I$ $a = 1.57896 - 0.36075I$ $b = -0.524420 - 0.327548I$	$2.44370 - 5.27249I$	0
$u = 0.182998 - 1.249280I$ $a = 1.57896 + 0.36075I$ $b = -0.524420 + 0.327548I$	$2.44370 + 5.27249I$	0
$u = 0.400232 + 1.208590I$ $a = -0.302761 + 0.071526I$ $b = -0.457496 + 0.971975I$	$6.58603 + 2.06901I$	0
$u = 0.400232 - 1.208590I$ $a = -0.302761 - 0.071526I$ $b = -0.457496 - 0.971975I$	$6.58603 - 2.06901I$	0
$u = -0.247457 + 1.285890I$ $a = -1.182790 - 0.654090I$ $b = 0.840149 - 0.785884I$	$2.69980 + 5.44315I$	0
$u = -0.247457 - 1.285890I$ $a = -1.182790 + 0.654090I$ $b = 0.840149 + 0.785884I$	$2.69980 - 5.44315I$	0
$u = -0.455780 + 1.247860I$ $a = -1.107690 + 0.040679I$ $b = -0.031073 - 0.849645I$	$7.87234 + 1.71896I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.455780-1.247860I$ $a=-1.107690-0.040679I$ $b=-0.031073+0.849645I$	$7.87234-1.71896I$	0
$u=-1.308270+0.356644I$ $a=\ \ 0.607147-0.237038I$ $b=-0.954653+1.032190I$	$1.26678+4.91375I$	0
$u=-1.308270-0.356644I$ $a=\ \ 0.607147+0.237038I$ $b=-0.954653-1.032190I$	$1.26678-4.91375I$	0
$u=-0.55919+1.30075I$ $a=-0.960228-0.331950I$ $b=\ \ 0.726716-1.005470I$	$1.17531+6.67830I$	0
$u=-0.55919-1.30075I$ $a=-0.960228+0.331950I$ $b=\ \ 0.726716+1.005470I$	$1.17531-6.67830I$	0
$u=-0.12456+1.46073I$ $a=\ \ 0.249936+0.211601I$ $b=-0.422778-0.049882I$	$0.87310+4.34938I$	0
$u=-0.12456-1.46073I$ $a=\ \ 0.249936-0.211601I$ $b=-0.422778+0.049882I$	$0.87310-4.34938I$	0
$u=-0.49504+1.42097I$ $a=\ \ 0.955766+0.536199I$ $b=-0.74785+1.44856I$	$6.66035+10.78180I$	0
$u=-0.49504-1.42097I$ $a=\ \ 0.955766-0.536199I$ $b=-0.74785-1.44856I$	$6.66035-10.78180I$	0
$u=-0.07391+1.60851I$ $a=-0.202619+0.885423I$ $b=\ \ 0.076585+0.735718I$	$8.82247+3.67521I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.07391-1.60851I$ $a=-0.202619-0.885423I$ $b=\ \ 0.076585-0.735718I$	$8.82247-3.67521I$	0
$u=-0.052718+0.214136I$ $a=\ \ 2.11870+4.04015I$ $b=-0.21971+1.54002I$	$0.00214+6.06285I$	$-4.35516-7.15209I$
$u=-0.052718-0.214136I$ $a=\ \ 2.11870-4.04015I$ $b=-0.21971-1.54002I$	$0.00214-6.06285I$	$-4.35516+7.15209I$
$u=-0.1351330+0.0076911I$ $a=-8.29170+3.63261I$ $b=\ \ 0.379756-0.525143I$	$-1.59156+3.02581I$	$2.47079-1.76793I$
$u=-0.1351330-0.0076911I$ $a=-8.29170-3.63261I$ $b=\ \ 0.379756+0.525143I$	$-1.59156-3.02581I$	$2.47079+1.76793I$
$u=\ \ 0.43014+2.32325I$ $a=\ \ 0.041396-0.137872I$ $b=\ \ 0.149665-0.533653I$	$7.71685+5.48093I$	0
$u=\ \ 0.43014-2.32325I$ $a=\ \ 0.041396+0.137872I$ $b=\ \ 0.149665+0.533653I$	$7.71685-5.48093I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{47}-9u^{46}+\cdots+24u-1)(u^{183}+4u^{182}+\cdots-183798u+52461)$
c_2	$(u^{47}+u^{46}+\cdots-2u+1)(u^{183}-2u^{182}+\cdots-318294u-40021)$
c_3	$(u^{47}+18u^{45}+\cdots+17u-7)(u^{183}+u^{182}+\cdots+2518528u-157696)$
c_4	$(u^{47}+9u^{46}+\cdots+24u+1)(u^{183}+4u^{182}+\cdots-183798u+52461)$
c_5	$(u^{47}+3u^{46}+\cdots-54u+7)(u^{183}+2u^{182}+\cdots-626724u-79331)$
c_6	$(u^{47}+3u^{46}+\cdots+8u-7)(u^{183}-2u^{182}+\cdots+1244u+203)$
c_7	$(u^{47}+2u^{46}+\cdots+225u+31)$ $\cdot(u^{183}-3u^{182}+\cdots-13392267u-702451)$
c_8	$49(7u^{47}-19u^{46}+\cdots+u+3)$ $\cdot(7u^{183}-18u^{182}+\cdots+21249125u+234650)$
c_9	$49(7u^{47}+3u^{46}+\cdots+235u+101)$ $\cdot(7u^{183}-34u^{182}+\cdots+28034831u-1352596)$
c_{10}	$49(7u^{47}-4u^{46}+\cdots-2u+1)(7u^{183}+u^{182}+\cdots+354748u+24677)$
c_{11}	$(u^{47}-2u^{46}+\cdots+225u-31)$ $\cdot(u^{183}-3u^{182}+\cdots-13392267u-702451)$
c_{12}	$(u^{47}-2u^{46}+\cdots+8u-7)(u^{183}-u^{182}+\cdots+9088u-448)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$(y^{47} + 45y^{46} + \cdots + 54y - 1)$ $\cdot (y^{183} + 142y^{182} + \cdots - 132303001266y - 2752156521)$
c_2	$(y^{47} + 21y^{46} + \cdots + 6y - 1)$ $\cdot (y^{183} + 2y^{182} + \cdots + 214292514570y - 1601680441)$
c_3	$(y^{47} + 36y^{46} + \cdots - 957y - 49)$ $\cdot (y^{183} + 57y^{182} + \cdots - 1746473320448y - 24868028416)$
c_5	$(y^{47} - y^{46} + \cdots + 18y - 49)$ $\cdot (y^{183} - 20y^{182} + \cdots + 171767282162y - 6293407561)$
c_6	$(y^{47} + 5y^{46} + \cdots + 666y - 49)$ $\cdot (y^{183} - 6y^{182} + \cdots + 3080998y - 41209)$
c_7, c_{11}	$(y^{47} - 36y^{46} + \cdots + 7163y - 961)$ $\cdot (y^{183} - 151y^{182} + \cdots + 52196002203823y - 493437407401)$
c_8	$2401(49y^{47} + 1557y^{46} + \cdots - 89y - 9)$ $\cdot (49y^{183} + 3834y^{182} + \cdots + 529210869055025y - 55060622500)$
c_9	$2401(49y^{47} - 933y^{46} + \cdots + 67547y - 10201)$ $\cdot (49y^{183} - 2136y^{182} + \cdots + 122950525332321y - 1829515939216)$
c_{10}	$2401(49y^{47} - 492y^{46} + \cdots + 6y - 1)$ $\cdot (49y^{183} - 2479y^{182} + \cdots + 57523575206y - 608954329)$
c_{12}	$(y^{47} + 12y^{46} + \cdots + 890y - 49)$ $\cdot (y^{183} + 25y^{182} + \cdots + 604160y - 200704)$