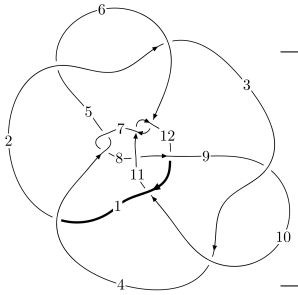
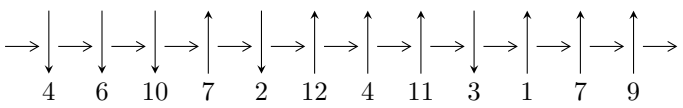
$12n_{0790}$ $(K12n_{0790})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -7.14667 \times 10^{409} u^{92} - 5.32523 \times 10^{410} u^{91} + \cdots + 4.98001 \times 10^{410} b - 3.89130 \times 10^{412}, \\ & 4.70081 \times 10^{411} u^{92} + 3.48169 \times 10^{412} u^{91} + \cdots + 3.46111 \times 10^{413} a + 1.89968 \times 10^{415}, \\ & 3u^{93} + 22u^{92} + \cdots + 6023u + 695 \rangle \\ I_2^u = \langle & -5.47528 \times 10^{24} u^{26} - 9.23714 \times 10^{22} u^{25} + \cdots + 2.62202 \times 10^{24} b - 3.76400 \times 10^{22}, \\ & -2.17634 \times 10^{24} u^{26} + 3.10319 \times 10^{24} u^{25} + \cdots + 2.62202 \times 10^{24} a - 1.13279 \times 10^{25}, \ 3u^{27} - u^{26} + \cdots - 6u^2 \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 120 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. $\boldsymbol{I_1^u = \langle -7.15 \times 10^{409} u^{92} - 5.33 \times 10^{410} u^{91} + \cdots + 4.98 \times 10^{410} b - 3.89 \times 10^{412},\ 4.70 \times 10^{411} u^{92} + 3.48 \times 10^{412} u^{91} + \cdots + 3.46 \times 10^{413} a + 1.90 \times 10^{415},\ 3u^{93} + 22u^{92} + \cdots + 6023u + 695 \rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.0135818u^{92} - 0.100595u^{91} + \cdots - 238.687u - 54.8864 \\ 0.143507u^{92} + 1.06932u^{91} + \cdots + 568.056u + 78.1384 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.301700u^{92} - 2.00007u^{91} + \cdots - 550.015u - 80.7225 \\ -0.295411u^{92} - 1.99275u^{91} + \cdots - 598.971u - 73.2675 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.0629549u^{92} + 0.517586u^{91} + \cdots + 447.875u + 108.119 \\ -0.0833166u^{92} - 0.479335u^{91} + \cdots + 1.31628u + 2.37199 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.185984u^{92} - 1.41044u^{91} + \cdots - 1066.72u - 289.305 \\ -0.0386972u^{92} - 0.308193u^{91} + \cdots - 77.2777u - 1.02321 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.382257u^{92} - 2.77588u^{91} + \cdots - 1845.24u - 324.691 \\ 0.143790u^{92} + 0.957852u^{91} + \cdots + 265.817u + 30.9818 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.127751u^{92} + 0.819530u^{91} + \cdots + 175.460u - 2.90117 \\ 0.152700u^{92} + 1.01579u^{91} + \cdots + 335.904u + 44.8910 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1.32557u^{92} + 8.92984u^{91} + \cdots + 3658.56u + 546.752 \\ 0.468972u^{92} + 3.23240u^{91} + \cdots + 1446.79u + 205.465 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.0625451u^{92} + 0.381060u^{91} + \cdots + 45.4867u - 20.6145 \\ 0.141552u^{92} + 0.924644u^{91} + \cdots + 271.287u + 35.6916 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.215998u^{92} + 1.15544u^{91} + \cdots + 644.040u + 222.694$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{93}+u^{92}+\cdots-493754u-46509$
c_2, c_5	$3(3u^{93}+22u^{92}+\cdots+6023u+695)$
c_3, c_9	$u^{93}-4u^{92}+\cdots-435u+281$
c_4, c_7	$u^{93}+9u^{92}+\cdots-341511u-15167$
c_6, c_{11}	$3(3u^{93}-5u^{92}+\cdots-24386u-2531)$
c_8	$u^{93}+16u^{92}+\cdots+256813u+72465$
c_{10}	$9(9u^{93}+71u^{92}+\cdots-6u-1)$
c_{12}	$u^{93}+3u^{91}+\cdots+17755u+2097$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{93} + 7y^{92} + \cdots - 70016139986y - 2163087081$
c_2, c_5	$9(9y^{93} - 298y^{92} + \cdots + 1.07075 \times 10^7 y - 483025)$
c_3, c_9	$y^{93} - 62y^{92} + \cdots + 1260959y - 78961$
c_4, c_7	$y^{93} - 81y^{92} + \cdots - 1602188993y - 230037889$
c_6, c_{11}	$9(9y^{93} + 395y^{92} + \cdots - 7.45852 \times 10^7 y - 6405961)$
c_8	$y^{93} - 42y^{92} + \cdots + 228494230849y - 5251176225$
c_{10}	$81(81y^{93} - 1621y^{92} + \cdots - 20y - 1)$
c_{12}	$y^{93} + 6y^{92} + \cdots + 66493885y - 4397409$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.674954 + 0.732172I$ $a = 1.215980 - 0.268347I$ $b = 0.139557 + 0.583522I$	$2.81000 + 0.59876I$	0
$u = 0.674954 - 0.732172I$ $a = 1.215980 + 0.268347I$ $b = 0.139557 - 0.583522I$	$2.81000 - 0.59876I$	0
$u = 0.686494 + 0.697906I$ $a = -0.001348 - 1.067160I$ $b = 1.10088 - 2.50838I$	$2.54150 - 7.26629I$	0
$u = 0.686494 - 0.697906I$ $a = -0.001348 + 1.067160I$ $b = 1.10088 + 2.50838I$	$2.54150 + 7.26629I$	0
$u = -0.691333 + 0.690971I$ $a = 0.346050 - 1.118080I$ $b = 0.103808 - 0.667560I$	$-1.23938 + 3.77370I$	0
$u = -0.691333 - 0.690971I$ $a = 0.346050 + 1.118080I$ $b = 0.103808 + 0.667560I$	$-1.23938 - 3.77370I$	0
$u = -0.937905 + 0.192409I$ $a = 0.198382 + 0.296203I$ $b = -0.638617 + 0.629199I$	$-1.61133 + 0.24005I$	0
$u = -0.937905 - 0.192409I$ $a = 0.198382 - 0.296203I$ $b = -0.638617 - 0.629199I$	$-1.61133 - 0.24005I$	0
$u = -0.948386 + 0.462059I$ $a = -0.133432 + 0.734649I$ $b = -0.660912 + 0.952450I$	$-2.50321 + 0.81346I$	0
$u = -0.948386 - 0.462059I$ $a = -0.133432 - 0.734649I$ $b = -0.660912 - 0.952450I$	$-2.50321 - 0.81346I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.095269 + 0.938474I$ $a = 0.473851 + 0.415001I$ $b = 0.512383 - 0.773209I$	$2.00771 - 3.44099I$	0
$u = 0.095269 - 0.938474I$ $a = 0.473851 - 0.415001I$ $b = 0.512383 + 0.773209I$	$2.00771 + 3.44099I$	0
$u = 0.823460 + 0.375542I$ $a = -0.119724 - 1.144210I$ $b = -1.03275 - 1.35723I$	$-6.20249 - 5.22443I$	0
$u = 0.823460 - 0.375542I$ $a = -0.119724 + 1.144210I$ $b = -1.03275 + 1.35723I$	$-6.20249 + 5.22443I$	0
$u = 0.854498 + 0.689956I$ $a = 0.093394 + 0.958920I$ $b = -1.15625 + 1.81104I$	$4.75042 - 0.26422I$	0
$u = 0.854498 - 0.689956I$ $a = 0.093394 - 0.958920I$ $b = -1.15625 - 1.81104I$	$4.75042 + 0.26422I$	0
$u = 0.918476 + 0.606358I$ $a = -0.434023 - 0.634737I$ $b = -0.903200 - 0.654198I$	$-5.81791 + 4.00342I$	0
$u = 0.918476 - 0.606358I$ $a = -0.434023 + 0.634737I$ $b = -0.903200 + 0.654198I$	$-5.81791 - 4.00342I$	0
$u = 0.872877 + 0.109712I$ $a = -0.52784 + 1.37760I$ $b = 0.564876 + 0.849824I$	$-6.64115 + 3.23471I$	$-7.67162 + 0.I$
$u = 0.872877 - 0.109712I$ $a = -0.52784 - 1.37760I$ $b = 0.564876 - 0.849824I$	$-6.64115 - 3.23471I$	$-7.67162 + 0.I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.878160 + 0.700675I$ $a = -1.086750 + 0.245560I$ $b = -0.028345 - 0.641744I$	$4.67143 - 5.07155I$	0
$u = 0.878160 - 0.700675I$ $a = -1.086750 - 0.245560I$ $b = -0.028345 + 0.641744I$	$4.67143 + 5.07155I$	0
$u = -0.662848 + 0.569436I$ $a = -0.071156 - 0.971664I$ $b = -1.63900 - 1.99223I$	$2.25029 - 5.38425I$	0
$u = -0.662848 - 0.569436I$ $a = -0.071156 + 0.971664I$ $b = -1.63900 + 1.99223I$	$2.25029 + 5.38425I$	0
$u = -1.128720 + 0.149564I$ $a = 0.30651 - 1.52316I$ $b = 0.02115 - 1.67361I$	$-8.96468 - 3.92565I$	0
$u = -1.128720 - 0.149564I$ $a = 0.30651 + 1.52316I$ $b = 0.02115 + 1.67361I$	$-8.96468 + 3.92565I$	0
$u = 0.398460 + 0.758184I$ $a = 1.077610 - 0.881690I$ $b = 0.344671 + 0.364720I$	$3.37801 + 0.99096I$	$6.48497 + 0.I$
$u = 0.398460 - 0.758184I$ $a = 1.077610 + 0.881690I$ $b = 0.344671 - 0.364720I$	$3.37801 - 0.99096I$	$6.48497 + 0.I$
$u = 0.933778 + 0.704004I$ $a = -0.091450 + 1.054630I$ $b = -0.010874 + 0.746479I$	$-5.82082 - 9.31118I$	0
$u = 0.933778 - 0.704004I$ $a = -0.091450 - 1.054630I$ $b = -0.010874 - 0.746479I$	$-5.82082 + 9.31118I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.442517+0.688839I$ $a=\ 0.176317+0.822306I$ $b=\ 0.249277+0.829583I$	$-0.81738+3.68689I$	$0.-7.64746I$
$u=-0.442517-0.688839I$ $a=\ 0.176317-0.822306I$ $b=\ 0.249277-0.829583I$	$-0.81738-3.68689I$	$0.+7.64746I$
$u=-0.619214+0.521758I$ $a=\ 0.742330+0.106731I$ $b=-0.113697+0.262021I$	$-1.67952+0.53410I$	$-4.21973+0.I$
$u=-0.619214-0.521758I$ $a=\ 0.742330-0.106731I$ $b=-0.113697-0.262021I$	$-1.67952-0.53410I$	$-4.21973+0.I$
$u=\ 1.112030+0.426697I$ $a=\ 0.084200-1.167710I$ $b=-0.10451-1.58436I$	$-5.26330-4.96135I$	0
$u=\ 1.112030-0.426697I$ $a=\ 0.084200+1.167710I$ $b=-0.10451+1.58436I$	$-5.26330+4.96135I$	0
$u=-0.623299+0.503573I$ $a=-0.92680+1.62860I$ $b=-0.40002+2.17351I$	$-6.65496+6.93046I$	$0.-11.05037I$
$u=-0.623299-0.503573I$ $a=-0.92680-1.62860I$ $b=-0.40002-2.17351I$	$-6.65496-6.93046I$	$0.+11.05037I$
$u=-0.692093+0.397215I$ $a=-0.099142+0.920873I$ $b=\ 1.81566+1.93139I$	$2.87496+2.75738I$	$-1.61500-5.30010I$
$u=-0.692093-0.397215I$ $a=-0.099142-0.920873I$ $b=\ 1.81566-1.93139I$	$2.87496-2.75738I$	$-1.61500+5.30010I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.044320+0.596872I$ $a=-1.300970-0.184765I$ $b=-0.170854+0.517420I$	$0.96308+10.07780I$	0
$u=-1.044320-0.596872I$ $a=-1.300970+0.184765I$ $b=-0.170854-0.517420I$	$0.96308-10.07780I$	0
$u=-1.083630+0.537499I$ $a=-0.070934+1.305290I$ $b=\ \ 0.85778+1.95035I$	$-0.80241+7.59723I$	0
$u=-1.083630-0.537499I$ $a=-0.070934-1.305290I$ $b=\ \ 0.85778-1.95035I$	$-0.80241-7.59723I$	0
$u=\ \ 0.733455+0.252583I$ $a=-0.30543-1.82531I$ $b=\ \ 0.00457-2.01689I$	$-4.01462-3.43234I$	$8.55484+7.50603I$
$u=\ \ 0.733455-0.252583I$ $a=-0.30543+1.82531I$ $b=\ \ 0.00457+2.01689I$	$-4.01462+3.43234I$	$8.55484-7.50603I$
$u=-1.24771$ $a=\ \ 0.914123$ $b=-0.758760$	0.556605	0
$u=\ \ 1.089900+0.607822I$ $a=\ \ 0.181194-1.176140I$ $b=\ \ 0.94657-1.94638I$	$1.36282-6.16551I$	0
$u=\ \ 1.089900-0.607822I$ $a=\ \ 0.181194+1.176140I$ $b=\ \ 0.94657+1.94638I$	$1.36282+6.16551I$	0
$u=\ \ 1.264290+0.183174I$ $a=\ \ 0.479294-0.545939I$ $b=-0.381207-0.859789I$	$-2.91671-0.62225I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.264290 - 0.183174I$ $a = 0.479294 + 0.545939I$ $b = -0.381207 + 0.859789I$	$-2.91671 + 0.62225I$	0
$u = -0.910304 + 0.900507I$ $a = 0.522542 - 1.020090I$ $b = -0.74377 - 1.38645I$	$-2.57873 + 6.21327I$	0
$u = -0.910304 - 0.900507I$ $a = 0.522542 + 1.020090I$ $b = -0.74377 + 1.38645I$	$-2.57873 - 6.21327I$	0
$u = 1.119580 + 0.704429I$ $a = 0.089214 - 1.066460I$ $b = 0.79897 - 1.96272I$	$1.49803 - 6.24365I$	0
$u = 1.119580 - 0.704429I$ $a = 0.089214 + 1.066460I$ $b = 0.79897 + 1.96272I$	$1.49803 + 6.24365I$	0
$u = -0.588087 + 0.331536I$ $a = 1.83719 - 0.13136I$ $b = 0.125737 - 1.152850I$	$1.12788 - 3.60271I$	$1.12062 + 5.92083I$
$u = -0.588087 - 0.331536I$ $a = 1.83719 + 0.13136I$ $b = 0.125737 + 1.152850I$	$1.12788 + 3.60271I$	$1.12062 - 5.92083I$
$u = -1.203700 + 0.590086I$ $a = -0.347750 + 0.718485I$ $b = -0.25721 + 1.84323I$	$-3.96714 + 0.38677I$	0
$u = -1.203700 - 0.590086I$ $a = -0.347750 - 0.718485I$ $b = -0.25721 - 1.84323I$	$-3.96714 - 0.38677I$	0
$u = -0.287732 + 1.319090I$ $a = 0.193631 + 0.189893I$ $b = 0.192982 - 0.234031I$	$4.31204 + 3.39765I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.287732-1.319090I$ $a=\ 0.193631-0.189893I$ $b=\ 0.192982+0.234031I$	$4.31204-3.39765I$	0
$u=\ 0.544638+0.306845I$ $a=\ 0.92896+1.85109I$ $b=\ 0.519502+1.298470I$	$-2.86298+2.13949I$	$0.67058-5.49562I$
$u=\ 0.544638-0.306845I$ $a=\ 0.92896-1.85109I$ $b=\ 0.519502-1.298470I$	$-2.86298-2.13949I$	$0.67058+5.49562I$
$u=-0.489317+1.296330I$ $a=-0.474834+0.068876I$ $b=\ 0.355242+0.882752I$	$-0.52324+2.36440I$	0
$u=-0.489317-1.296330I$ $a=-0.474834-0.068876I$ $b=\ 0.355242-0.882752I$	$-0.52324-2.36440I$	0
$u=-1.297460+0.490834I$ $a=\ 0.242981+0.811654I$ $b=\ 0.74306+1.50520I$	$0.31354+2.51804I$	0
$u=-1.297460-0.490834I$ $a=\ 0.242981-0.811654I$ $b=\ 0.74306-1.50520I$	$0.31354-2.51804I$	0
$u=-0.566170$ $a=\ 3.10038$ $b=\ 0.553177$	4.63798	-11.5780
$u=\ 0.48605+1.35102I$ $a=-0.634856+0.184510I$ $b=\ 0.272403-0.519347I$	$5.10190+4.33232I$	0
$u=\ 0.48605-1.35102I$ $a=-0.634856-0.184510I$ $b=\ 0.272403+0.519347I$	$5.10190-4.33232I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.401346+0.289584I$ $a=-1.36249-1.64357I$ $b=\ \ 0.467604+0.316991I$	$1.39489+1.09605I$	$4.43393-5.59913I$
$u=-0.401346-0.289584I$ $a=-1.36249+1.64357I$ $b=\ \ 0.467604-0.316991I$	$1.39489-1.09605I$	$4.43393+5.59913I$
$u=-1.52411+0.05080I$ $a=-0.138758-0.528352I$ $b=-0.11425-2.03470I$	$-3.77465+0.88656I$	0
$u=-1.52411-0.05080I$ $a=-0.138758+0.528352I$ $b=-0.11425+2.03470I$	$-3.77465-0.88656I$	0
$u=\ \ 1.29646+0.81005I$ $a=\ \ 0.006482+0.935911I$ $b=-0.78276+2.01410I$	$2.45748-11.81670I$	0
$u=\ \ 1.29646-0.81005I$ $a=\ \ 0.006482-0.935911I$ $b=-0.78276-2.01410I$	$2.45748+11.81670I$	0
$u=-1.32096+0.78025I$ $a=\ \ 0.162237-0.827746I$ $b=-0.89132-1.79515I$	$-3.29057+5.02576I$	0
$u=-1.32096-0.78025I$ $a=\ \ 0.162237+0.827746I$ $b=-0.89132+1.79515I$	$-3.29057-5.02576I$	0
$u=-0.64910+1.41700I$ $a=-0.793221-0.052665I$ $b=\ \ 0.142883+0.621132I$	$0.62586-10.14570I$	0
$u=-0.64910-1.41700I$ $a=-0.793221+0.052665I$ $b=\ \ 0.142883-0.621132I$	$0.62586+10.14570I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.54061 + 0.31502I$ $a = -0.232279 + 0.505844I$ $b = 0.26775 + 2.05575I$	$-7.67390 - 7.52480I$	0
$u = 1.54061 - 0.31502I$ $a = -0.232279 - 0.505844I$ $b = 0.26775 - 2.05575I$	$-7.67390 + 7.52480I$	0
$u = -1.30908 + 0.87953I$ $a = 0.023926 - 1.014740I$ $b = -0.69764 - 2.04274I$	$-1.6681 + 18.1685I$	0
$u = -1.30908 - 0.87953I$ $a = 0.023926 + 1.014740I$ $b = -0.69764 + 2.04274I$	$-1.6681 - 18.1685I$	0
$u = -1.33446 + 0.96768I$ $a = -0.024479 + 0.973454I$ $b = 0.48958 + 1.98070I$	$-2.11305 + 8.95351I$	0
$u = -1.33446 - 0.96768I$ $a = -0.024479 - 0.973454I$ $b = 0.48958 - 1.98070I$	$-2.11305 - 8.95351I$	0
$u = -0.281062$ $a = -5.70017$ $b = 0.206328$	3.03653	44.5000
$u = 0.107451 + 0.239477I$ $a = 0.35135 - 2.35992I$ $b = 0.433352 - 0.347109I$	$1.228090 - 0.380559I$	$7.84885 + 1.47754I$
$u = 0.107451 - 0.239477I$ $a = 0.35135 + 2.35992I$ $b = 0.433352 + 0.347109I$	$1.228090 + 0.380559I$	$7.84885 - 1.47754I$
$u = 1.75201 + 0.13606I$ $a = -0.132922 - 0.636322I$ $b = 0.11294 - 1.75128I$	$-9.64128 - 4.45809I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.75201 - 0.13606I$ $a = -0.132922 + 0.636322I$ $b = 0.11294 + 1.75128I$	$-9.64128 + 4.45809I$	0
$u = -0.61216 + 1.97687I$ $a = 0.972313 - 0.030847I$ $b = 0.143611 - 0.184027I$	$-0.0900114 - 0.0409964I$	0
$u = -0.61216 - 1.97687I$ $a = 0.972313 + 0.030847I$ $b = 0.143611 + 0.184027I$	$-0.0900114 + 0.0409964I$	0

II. $I_2^u = \langle -5.48\times 10^{24}u^{26} - 9.24\times 10^{22}u^{25} + \cdots + 2.62\times 10^{24}b - 3.76\times 10^{22},\ -2.18\times 10^{24}u^{26} + 3.10\times 10^{24}u^{25} + \cdots + 2.62\times 10^{24}a - 1.13\times 10^{25},\ 3u^{27} - u^{26} + \cdots - 6u^2 + 1\rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.830026u^{26} - 1.18351u^{25} + \cdots - 2.18146u + 4.32029 \\ 2.08819u^{26} + 0.0352291u^{25} + \cdots - 0.969498u + 0.0143553 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -9.13895u^{26} + 3.75782u^{25} + \cdots + 19.1051u - 0.580350 \\ -1.21146u^{26} + 1.36298u^{25} + \cdots + 3.45375u - 0.913452 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 19.8999u^{26} - 5.44200u^{25} + \cdots - 42.0029u - 0.818310 \\ 2.13751u^{26} - 0.640341u^{25} + \cdots - 4.97331u + 0.983879 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -53.2973u^{26} + 14.6786u^{25} + \cdots + 116.922u + 3.66324 \\ -4.77966u^{26} + 2.89122u^{25} + \cdots + 13.8959u - 3.34107 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.703685u^{26} - 7.82470u^{25} + \cdots - 4.38591u + 16.7491 \\ 1.55379u^{26} - 2.01157u^{25} + \cdots - 2.08747u + 1.79186 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -17.4160u^{26} + 6.20552u^{25} + \cdots + 38.6101u - 3.38199 \\ -2.41028u^{26} + 1.11206u^{25} + \cdots + 5.03666u - 0.825501 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -19.9953u^{26} + 17.9764u^{25} + \cdots + 47.8550u - 26.3512 \\ -4.73532u^{26} + 3.06498u^{25} + \cdots + 11.6086u - 4.04184 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -18.0474u^{26} + 6.17298u^{25} + \cdots + 39.3788u - 2.68988 \\ -2.60784u^{26} + 1.19707u^{25} + \cdots + 5.24713u - 0.744502 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{96546149137055527549848081}{26220177783198008888275503}u^{26} - \frac{213684409232530313713193 85}{26220177783198008888275503}u^{25} + \cdots - \frac{20644251922458960672374 4388}{26220177783198008888275503}u - \frac{13602696470375884795425211}{26220177783198008888275503}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{27} - 6u^{26} + \cdots + 41u + 111$
c_2	$3(3u^{27} - u^{26} + \cdots - 6u^2 + 1)$
c_3	$u^{27} - 3u^{26} + \cdots - 6u + 1$
c_4	$u^{27} + 4u^{26} + \cdots - 4u + 1$
c_5	$3(3u^{27} + u^{26} + \cdots + 6u^2 - 1)$
c_6	$3(3u^{27} + 4u^{26} + \cdots + u - 1)$
c_7	$u^{27} - 4u^{26} + \cdots - 4u - 1$
c_8	$u^{27} - 3u^{26} + \cdots - 134u + 123$
c_9	$u^{27} + 3u^{26} + \cdots - 6u - 1$
c_{10}	$9(9u^{27} + 52u^{26} + \cdots - u + 1)$
c_{11}	$3(3u^{27} - 4u^{26} + \cdots + u + 1)$
c_{12}	$u^{27} - u^{26} + \cdots - 64u + 9$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{27} - 6y^{26} + \cdots + 125779y - 12321$
c_2, c_5	$9(9y^{27} - 151y^{26} + \cdots + 12y - 1)$
c_3, c_9	$y^{27} - 19y^{26} + \cdots + 32y - 1$
c_4, c_7	$y^{27} - 22y^{26} + \cdots - 20y - 1$
c_6, c_{11}	$9(9y^{27} + 110y^{26} + \cdots + 7y - 1)$
c_8	$y^{27} - 15y^{26} + \cdots + 270598y - 15129$
c_{10}	$81(81y^{27} + 14y^{26} + \cdots + 9y - 1)$
c_{12}	$y^{27} - 3y^{26} + \cdots + 2854y - 81$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.075750 + 0.195752I$ $a = 0.338954 - 0.420995I$ $b = -0.366566 - 0.722015I$	$-0.893118 - 0.283770I$	$4.55411 - 0.56059I$
$u = 1.075750 - 0.195752I$ $a = 0.338954 + 0.420995I$ $b = -0.366566 + 0.722015I$	$-0.893118 + 0.283770I$	$4.55411 + 0.56059I$
$u = 0.889167 + 0.173798I$ $a = 0.03144 - 1.53477I$ $b = -0.13313 - 1.99199I$	$-4.36755 - 3.22896I$	$-8.50125 - 1.58871I$
$u = 0.889167 - 0.173798I$ $a = 0.03144 + 1.53477I$ $b = -0.13313 + 1.99199I$	$-4.36755 + 3.22896I$	$-8.50125 + 1.58871I$
$u = -0.745112 + 0.470935I$ $a = -0.301397 + 1.147620I$ $b = -0.630277 + 0.476195I$	$-5.47347 - 3.00815I$	$-1.017488 + 0.600718I$
$u = -0.745112 - 0.470935I$ $a = -0.301397 - 1.147620I$ $b = -0.630277 - 0.476195I$	$-5.47347 + 3.00815I$	$-1.017488 - 0.600718I$
$u = -0.987330 + 0.607022I$ $a = 0.121989 + 1.232100I$ $b = 0.97162 + 2.08705I$	$0.91893 + 6.47791I$	$-4.82304 - 9.88552I$
$u = -0.987330 - 0.607022I$ $a = 0.121989 - 1.232100I$ $b = 0.97162 - 2.08705I$	$0.91893 - 6.47791I$	$-4.82304 + 9.88552I$
$u = 1.23443$ $a = 1.05231$ $b = -0.439230$	0.229879	-9.08000
$u = -0.665123 + 0.295112I$ $a = -0.33280 + 1.94387I$ $b = -0.80748 + 1.86163I$	$-7.17961 + 6.51507I$	$-9.45653 - 4.65252I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.665123-0.295112I$ $a=-0.33280-1.94387I$ $b=-0.80748-1.86163I$	$-7.17961-6.51507I$	$-9.45653+4.65252I$
$u=\ \ 0.997412+0.825252I$ $a=-0.395793-1.046560I$ $b=\ \ 0.68437-1.56270I$	$-2.71816-5.93896I$	$-6.03167+0.47266I$
$u=\ \ 0.997412-0.825252I$ $a=-0.395793+1.046560I$ $b=\ \ 0.68437+1.56270I$	$-2.71816+5.93896I$	$-6.03167-0.47266I$
$u=\ \ 0.135489+1.313040I$ $a=\ \ 0.183593+0.219848I$ $b=-0.043710-0.367398I$	$4.19524-3.66948I$	$-3.32475+13.44023I$
$u=\ \ 0.135489-1.313040I$ $a=\ \ 0.183593-0.219848I$ $b=-0.043710+0.367398I$	$4.19524+3.66948I$	$-3.32475-13.44023I$
$u=\ \ 0.293489+0.601043I$ $a=-0.121018+0.672950I$ $b=\ \ 1.09153-1.28553I$	$3.46541-2.17371I$	$6.77661-0.85419I$
$u=\ \ 0.293489-0.601043I$ $a=-0.121018-0.672950I$ $b=\ \ 1.09153+1.28553I$	$3.46541+2.17371I$	$6.77661+0.85419I$
$u=-1.43398+0.41435I$ $a=-0.090956-0.588550I$ $b=\ \ 0.50703-1.84769I$	$-8.22496+7.18681I$	$-8.49603-3.81374I$
$u=-1.43398-0.41435I$ $a=-0.090956+0.588550I$ $b=\ \ 0.50703+1.84769I$	$-8.22496-7.18681I$	$-8.49603+3.81374I$
$u=-1.51003+0.02788I$ $a=-0.067211-0.943499I$ $b=\ \ 0.21093-1.86964I$	$-10.92740-4.73924I$	$-8.61695+3.75715I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.51003-0.02788I$ $a=-0.067211+0.943499I$ $b=\ \ 0.21093+1.86964I$	$-10.92740+4.73924I$	$-8.61695-3.75715I$
$u=\ \ 1.46823+0.36027I$ $a=\ \ 0.149669+0.631063I$ $b=\ \ 0.28488+2.02810I$	$-4.37032+0.03506I$	$-13.8697-2.9082I$
$u=\ \ 1.46823-0.36027I$ $a=\ \ 0.149669-0.631063I$ $b=\ \ 0.28488-2.02810I$	$-4.37032-0.03506I$	$-13.8697+2.9082I$
$u=\ \ 0.009582+0.469316I$ $a=\ \ 0.211172-1.176120I$ $b=-0.38048+2.31558I$	$1.94645+6.31890I$	$-1.86637-6.76418I$
$u=\ \ 0.009582-0.469316I$ $a=\ \ 0.211172+1.176120I$ $b=-0.38048-2.31558I$	$1.94645-6.31890I$	$-1.86637+6.76418I$
$u=\ \ 0.408432$ $a=\ \ 4.00133$ $b=-0.00254819$	2.93401	-34.6170
$u=-0.364618$ $a=\ \ 4.49108$ $b=\ \ 0.664354$	4.87561	22.7180

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{27}-6u^{26}+\cdots+41u+111)(u^{93}+u^{92}+\cdots-493754u-46509)$
c_2	$9(3u^{27}-u^{26}+\cdots-6u^2+1)(3u^{93}+22u^{92}+\cdots+6023u+695)$
c_3	$(u^{27}-3u^{26}+\cdots-6u+1)(u^{93}-4u^{92}+\cdots-435u+281)$
c_4	$(u^{27}+4u^{26}+\cdots-4u+1)(u^{93}+9u^{92}+\cdots-341511u-15167)$
c_5	$9(3u^{27}+u^{26}+\cdots+6u^2-1)(3u^{93}+22u^{92}+\cdots+6023u+695)$
c_6	$9(3u^{27}+4u^{26}+\cdots+u-1)(3u^{93}-5u^{92}+\cdots-24386u-2531)$
c_7	$(u^{27}-4u^{26}+\cdots-4u-1)(u^{93}+9u^{92}+\cdots-341511u-15167)$
c_8	$(u^{27}-3u^{26}+\cdots-134u+123)$ $\cdot(u^{93}+16u^{92}+\cdots+256813u+72465)$
c_9	$(u^{27}+3u^{26}+\cdots-6u-1)(u^{93}-4u^{92}+\cdots-435u+281)$
c_{10}	$81(9u^{27}+52u^{26}+\cdots-u+1)(9u^{93}+71u^{92}+\cdots-6u-1)$
c_{11}	$9(3u^{27}-4u^{26}+\cdots+u+1)(3u^{93}-5u^{92}+\cdots-24386u-2531)$
c_{12}	$(u^{27}-u^{26}+\cdots-64u+9)(u^{93}+3u^{91}+\cdots+17755u+2097)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{27} - 6y^{26} + \cdots + 125779y - 12321)$ $\cdot (y^{93} + 7y^{92} + \cdots - 70016139986y - 2163087081)$
c_2, c_5	$81(9y^{27} - 151y^{26} + \cdots + 12y - 1)$ $\cdot (9y^{93} - 298y^{92} + \cdots + 10707479y - 483025)$
c_3, c_9	$(y^{27} - 19y^{26} + \cdots + 32y - 1)(y^{93} - 62y^{92} + \cdots + 1260959y - 78961)$
c_4, c_7	$(y^{27} - 22y^{26} + \cdots - 20y - 1)$ $\cdot (y^{93} - 81y^{92} + \cdots - 1602188993y - 230037889)$
c_6, c_{11}	$81(9y^{27} + 110y^{26} + \cdots + 7y - 1)$ $\cdot (9y^{93} + 395y^{92} + \cdots - 74585210y - 6405961)$
c_8	$(y^{27} - 15y^{26} + \cdots + 270598y - 15129)$ $\cdot (y^{93} - 42y^{92} + \cdots + 228494230849y - 5251176225)$
c_{10}	$6561(81y^{27} + 14y^{26} + \cdots + 9y - 1)(81y^{93} - 1621y^{92} + \cdots - 20y - 1)$
c_{12}	$(y^{27} - 3y^{26} + \cdots + 2854y - 81)$ $\cdot (y^{93} + 6y^{92} + \cdots + 66493885y - 4397409)$