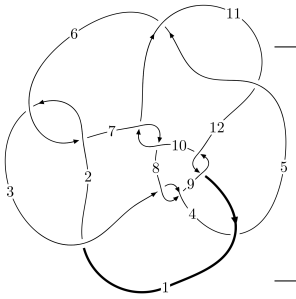
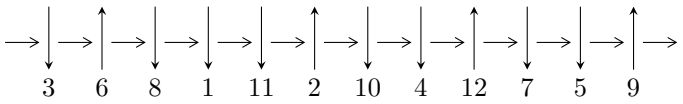
$12a_{0343}$ $(K12a_{0343})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -1.89950 \times 10^{307} u^{122} - 3.45185 \times 10^{305} u^{121} + \cdots + 2.69069 \times 10^{307} b - 8.18602 \times 10^{307},$$
$$8.09068 \times 10^{306} u^{122} - 2.25508 \times 10^{306} u^{121} + \cdots + 2.69069 \times 10^{307} a + 3.45678 \times 10^{308},\ u^{123} - u^{122} + \cdots - 2$$
$$I_2^u = \langle -39u^{23} - 150u^{22} + \cdots + 11b + 5,\ 56u^{23} + 267u^{22} + \cdots + 11a + 144,\ u^{24} + 4u^{23} + \cdots + 4u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 147 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. $\boldsymbol{I_1^u = \langle -1.90 \times 10^{307} u^{122} - 3.45 \times 10^{305} u^{121} + \cdots + 2.69 \times 10^{307} b - 8.19 \times 10^{307},\ 8.09 \times 10^{306} u^{122} - 2.26 \times 10^{306} u^{121} + \cdots + 2.69 \times 10^{307} a + 3.46 \times 10^{308},\ u^{123} - u^{122} + \cdots - 20u + 1 \rangle}$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.300691u^{122} + 0.0838104u^{121} + \cdots + 142.979u - 12.8472 \\ 0.705952u^{122} + 0.0128289u^{121} + \cdots - 44.7302u + 3.04235 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 6.23437u^{122} - 3.57871u^{121} + \cdots + 597.596u - 37.9819 \\ -0.328481u^{122} + 0.685943u^{121} + \cdots - 0.169787u - 0.237379 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -9.17317u^{122} + 3.03651u^{121} + \cdots + 237.883u - 14.9968 \\ -2.75634u^{122} + 1.33344u^{121} + \cdots - 51.5139u + 2.67282 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.405261u^{122} + 0.0966392u^{121} + \cdots + 98.2485u - 9.80483 \\ 0.705952u^{122} + 0.0128289u^{121} + \cdots - 44.7302u + 3.04235 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -2.82246u^{122} + 3.05333u^{121} + \cdots - 473.089u + 33.5336 \\ 1.04326u^{122} - 0.380472u^{121} + \cdots - 4.60280u + 0.669294 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 5.75868u^{122} - 3.43889u^{121} + \cdots + 592.906u - 37.7562 \\ -0.598238u^{122} + 0.690271u^{121} + \cdots - 5.88629u + 0.266081 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1.80034u^{122} + 4.11751u^{121} + \cdots + 68.8102u + 2.53731 \\ 0.0935492u^{122} + 1.97398u^{121} + \cdots - 53.4074u + 3.58507 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -12.1423u^{122} + 7.17995u^{121} + \cdots - 672.463u + 44.2835$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{123} + 47u^{122} + \cdots - 78u - 1$
c_2, c_6	$u^{123} - u^{122} + \cdots - 20u + 1$
c_3, c_8	$u^{123} - u^{122} + \cdots - 96274u + 98677$
c_4	$u^{123} - 3u^{122} + \cdots - 639124u + 39811$
c_5, c_{11}	$u^{123} + 5u^{122} + \cdots + 1222892u + 197593$
c_7, c_{10}	$u^{123} - 5u^{122} + \cdots - 16144u + 3433$
c_9, c_{12}	$u^{123} + 5u^{122} + \cdots - 10837u + 889$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{123} + 67y^{122} + \cdots + 7218y - 1$
c_2, c_6	$y^{123} + 47y^{122} + \cdots - 78y - 1$
c_3, c_8	$y^{123} - 79y^{122} + \cdots + 21540154796y - 9737150329$
c_4	$y^{123} - 23y^{122} + \cdots + 63443203538y - 1584915721$
c_5, c_{11}	$y^{123} + 91y^{122} + \cdots - 210187966472y - 39042993649$
c_7, c_{10}	$y^{123} + 91y^{122} + \cdots - 3783445264y - 11785489$
c_9, c_{12}	$y^{123} + 81y^{122} + \cdots - 9554859y - 790321$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.548242 + 0.829520I$ $a = -0.28443 + 3.46875I$ $b = 0.010383 + 1.086070I$	$0.28408 + 1.97118I$	0
$u = 0.548242 - 0.829520I$ $a = -0.28443 - 3.46875I$ $b = 0.010383 - 1.086070I$	$0.28408 - 1.97118I$	0
$u = 0.188873 + 0.961874I$ $a = 1.06444 - 1.90209I$ $b = -0.487294 + 0.744193I$	$-1.65857 + 2.76829I$	0
$u = 0.188873 - 0.961874I$ $a = 1.06444 + 1.90209I$ $b = -0.487294 - 0.744193I$	$-1.65857 - 2.76829I$	0
$u = 0.471154 + 0.913310I$ $a = 0.207239 - 1.003520I$ $b = 0.0108251 + 0.0804532I$	$-1.62654 + 2.08087I$	0
$u = 0.471154 - 0.913310I$ $a = 0.207239 + 1.003520I$ $b = 0.0108251 - 0.0804532I$	$-1.62654 - 2.08087I$	0
$u = 0.663578 + 0.788429I$ $a = -0.737189 - 0.836372I$ $b = 0.217628 - 1.232180I$	$2.85574 + 2.86066I$	0
$u = 0.663578 - 0.788429I$ $a = -0.737189 + 0.836372I$ $b = 0.217628 + 1.232180I$	$2.85574 - 2.86066I$	0
$u = 0.692386 + 0.663598I$ $a = 1.04127 + 1.31583I$ $b = -1.403510 - 0.137517I$	$-2.19824 - 6.06325I$	0
$u = 0.692386 - 0.663598I$ $a = 1.04127 - 1.31583I$ $b = -1.403510 + 0.137517I$	$-2.19824 + 6.06325I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.684030+0.787122I$ $a=-0.718927+0.734117I$ $b=\ \ 1.090480-0.430052I$	$1.08865+1.42170I$	0
$u=-0.684030-0.787122I$ $a=-0.718927-0.734117I$ $b=\ \ 1.090480+0.430052I$	$1.08865-1.42170I$	0
$u=-0.867245+0.598841I$ $a=-0.117871-0.088053I$ $b=\ \ 0.37530-1.45134I$	$7.05300+6.39208I$	0
$u=-0.867245-0.598841I$ $a=-0.117871+0.088053I$ $b=\ \ 0.37530+1.45134I$	$7.05300-6.39208I$	0
$u=\ \ 0.054989+1.056020I$ $a=\ \ 1.33622+0.58354I$ $b=-0.884436+0.596936I$	$-6.96479-5.41961I$	0
$u=\ \ 0.054989-1.056020I$ $a=\ \ 1.33622-0.58354I$ $b=-0.884436-0.596936I$	$-6.96479+5.41961I$	0
$u=-0.777613+0.728742I$ $a=\ \ 0.446166+0.395572I$ $b=\ \ 0.59916-1.66153I$	$4.59202+0.63566I$	0
$u=-0.777613-0.728742I$ $a=\ \ 0.446166-0.395572I$ $b=\ \ 0.59916+1.66153I$	$4.59202-0.63566I$	0
$u=\ \ 0.555401+0.915721I$ $a=-3.63550-0.10365I$ $b=\ \ 0.119236-0.990652I$	$-0.01039+2.42514I$	0
$u=\ \ 0.555401-0.915721I$ $a=-3.63550+0.10365I$ $b=\ \ 0.119236+0.990652I$	$-0.01039-2.42514I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.701386+0.596129I$ $a=-0.610071+1.182720I$ $b=-0.311639+1.042460I$	$-2.82441+6.67098I$	0
$u=-0.701386-0.596129I$ $a=-0.610071-1.182720I$ $b=-0.311639-1.042460I$	$-2.82441-6.67098I$	0
$u=0.564981+0.726132I$ $a=0.267380-0.658452I$ $b=0.61470+1.80552I$	$4.79658-1.21676I$	0
$u=0.564981-0.726132I$ $a=0.267380+0.658452I$ $b=0.61470-1.80552I$	$4.79658+1.21676I$	0
$u=0.092365+0.914757I$ $a=-1.79744+0.67550I$ $b=0.701179-0.034836I$	$-3.74968+2.54946I$	0
$u=0.092365-0.914757I$ $a=-1.79744-0.67550I$ $b=0.701179+0.034836I$	$-3.74968-2.54946I$	0
$u=-0.795084+0.738844I$ $a=-0.117741-0.649836I$ $b=-0.94381+1.52052I$	$4.61157+1.84512I$	0
$u=-0.795084-0.738844I$ $a=-0.117741+0.649836I$ $b=-0.94381-1.52052I$	$4.61157-1.84512I$	0
$u=0.571873+0.702674I$ $a=-0.673278-0.065065I$ $b=-0.01582-1.84927I$	$4.72306+3.41874I$	0
$u=0.571873-0.702674I$ $a=-0.673278+0.065065I$ $b=-0.01582+1.84927I$	$4.72306-3.41874I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.044210+1.100950I$ $a=\ \ 1.28678-0.62406I$ $b=-0.720657+0.969939I$	$-7.91882+5.51597I$	0
$u=-0.044210-1.100950I$ $a=\ \ 1.28678+0.62406I$ $b=-0.720657-0.969939I$	$-7.91882-5.51597I$	0
$u=-0.668230+0.600020I$ $a=\ \ 0.965540-0.874576I$ $b=\ \ 0.072062-1.171120I$	$2.09455+2.14303I$	0
$u=-0.668230-0.600020I$ $a=\ \ 0.965540+0.874576I$ $b=\ \ 0.072062+1.171120I$	$2.09455-2.14303I$	0
$u=-0.704145+0.853571I$ $a=\ \ 1.059400-0.583116I$ $b=-0.844367+0.144764I$	$4.58356-2.69549I$	0
$u=-0.704145-0.853571I$ $a=\ \ 1.059400+0.583116I$ $b=-0.844367-0.144764I$	$4.58356+2.69549I$	0
$u=\ \ 0.657481+0.915129I$ $a=\ \ 1.39700+0.30229I$ $b=-0.044526+1.168290I$	$2.46284+2.27208I$	0
$u=\ \ 0.657481-0.915129I$ $a=\ \ 1.39700-0.30229I$ $b=-0.044526-1.168290I$	$2.46284-2.27208I$	0
$u=\ \ 0.603634+0.625438I$ $a=-0.95310-1.22694I$ $b=\ \ 0.917200+0.488596I$	$1.61464-1.48578I$	0
$u=\ \ 0.603634-0.625438I$ $a=-0.95310+1.22694I$ $b=\ \ 0.917200-0.488596I$	$1.61464+1.48578I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.930561+0.651530I$ $a=\ \ 0.0935930-0.0169775I$ $b=-0.297784+1.346470I$	$9.44491+1.26369I$	0
$u=-0.930561-0.651530I$ $a=\ \ 0.0935930+0.0169775I$ $b=-0.297784-1.346470I$	$9.44491-1.26369I$	0
$u=\ \ 0.039146+0.856732I$ $a=-0.28892+1.55625I$ $b=\ \ 0.454781-0.796880I$	$-0.95020+1.54615I$	0
$u=\ \ 0.039146-0.856732I$ $a=-0.28892-1.55625I$ $b=\ \ 0.454781+0.796880I$	$-0.95020-1.54615I$	0
$u=-0.690055+0.913609I$ $a=-1.34483+0.79702I$ $b=\ \ 1.081260+0.213210I$	$0.70739-6.71925I$	0
$u=-0.690055-0.913609I$ $a=-1.34483-0.79702I$ $b=\ \ 1.081260-0.213210I$	$0.70739+6.71925I$	0
$u=\ \ 0.594792+0.982560I$ $a=-2.26229+0.28907I$ $b=\ \ 0.79501-1.51106I$	$3.93905+5.86747I$	0
$u=\ \ 0.594792-0.982560I$ $a=-2.26229-0.28907I$ $b=\ \ 0.79501+1.51106I$	$3.93905-5.86747I$	0
$u=-0.228702+1.126900I$ $a=\ \ 1.50308+0.18992I$ $b=-0.845488-0.603207I$	$-8.99015-0.16187I$	0
$u=-0.228702-1.126900I$ $a=\ \ 1.50308-0.18992I$ $b=-0.845488+0.603207I$	$-8.99015+0.16187I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.075421 + 1.150460I$ $a = -0.62923 + 1.66673I$ $b = 0.143974 - 1.211900I$	$0.42044 + 5.23178I$	0
$u = 0.075421 - 1.150460I$ $a = -0.62923 - 1.66673I$ $b = 0.143974 + 1.211900I$	$0.42044 - 5.23178I$	0
$u = 0.842806 + 0.801573I$ $a = 0.929607 + 0.697534I$ $b = -0.578522 + 1.001110I$	$-1.36378 + 5.18885I$	0
$u = 0.842806 - 0.801573I$ $a = 0.929607 - 0.697534I$ $b = -0.578522 - 1.001110I$	$-1.36378 - 5.18885I$	0
$u = 0.199194 + 1.146730I$ $a = 0.53743 - 1.54694I$ $b = 0.137196 + 1.073490I$	$1.68007 + 0.55799I$	0
$u = 0.199194 - 1.146730I$ $a = 0.53743 + 1.54694I$ $b = 0.137196 - 1.073490I$	$1.68007 - 0.55799I$	0
$u = 0.790044 + 0.860801I$ $a = -0.367226 - 0.181117I$ $b = -0.366840 - 0.928566I$	$-1.49647 + 0.88140I$	0
$u = 0.790044 - 0.860801I$ $a = -0.367226 + 0.181117I$ $b = -0.366840 + 0.928566I$	$-1.49647 - 0.88140I$	0
$u = 1.015760 + 0.586708I$ $a = -0.0011892 + 0.0495695I$ $b = -0.53755 - 1.44463I$	$2.89061 - 12.49430I$	0
$u = 1.015760 - 0.586708I$ $a = -0.0011892 - 0.0495695I$ $b = -0.53755 + 1.44463I$	$2.89061 + 12.49430I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.622172 + 0.996075I$ $a = 1.90904 - 0.51865I$ $b = -0.29135 + 1.61684I$	$3.74029 + 1.37980I$	0
$u = 0.622172 - 0.996075I$ $a = 1.90904 + 0.51865I$ $b = -0.29135 - 1.61684I$	$3.74029 - 1.37980I$	0
$u = -0.398934 + 1.105590I$ $a = -0.943165 + 0.353299I$ $b = 0.743394 + 0.242700I$	$-4.33976 - 3.64831I$	0
$u = -0.398934 - 1.105590I$ $a = -0.943165 - 0.353299I$ $b = 0.743394 - 0.242700I$	$-4.33976 + 3.64831I$	0
$u = 0.292366 + 0.769927I$ $a = 0.811956 + 0.272617I$ $b = -0.140390 - 0.142748I$	$-0.402159 + 1.260340I$	0
$u = 0.292366 - 0.769927I$ $a = 0.811956 - 0.272617I$ $b = -0.140390 + 0.142748I$	$-0.402159 - 1.260340I$	0
$u = -0.454281 + 0.669945I$ $a = -1.83479 + 0.78130I$ $b = 0.542756 + 1.087200I$	$0.09086 - 3.23989I$	0
$u = -0.454281 - 0.669945I$ $a = -1.83479 - 0.78130I$ $b = 0.542756 - 1.087200I$	$0.09086 + 3.23989I$	0
$u = 0.624887 + 1.014200I$ $a = -1.351130 - 0.411049I$ $b = 1.180930 - 0.136638I$	$0.42265 + 6.41847I$	0
$u = 0.624887 - 1.014200I$ $a = -1.351130 + 0.411049I$ $b = 1.180930 + 0.136638I$	$0.42265 - 6.41847I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.657253 + 0.999626I$ $a = 1.28231 + 0.89944I$ $b = -1.57124 - 0.14273I$	$-3.21499 + 11.29980I$	0
$u = 0.657253 - 0.999626I$ $a = 1.28231 - 0.89944I$ $b = -1.57124 + 0.14273I$	$-3.21499 - 11.29980I$	0
$u = 0.359010 + 0.716727I$ $a = 0.99737 + 1.53852I$ $b = 0.007714 - 0.601946I$	$-0.71456 + 1.67956I$	0
$u = 0.359010 - 0.716727I$ $a = 0.99737 - 1.53852I$ $b = 0.007714 + 0.601946I$	$-0.71456 - 1.67956I$	0
$u = 0.029242 + 1.208530I$ $a = -0.617405 - 0.068815I$ $b = 0.518957 - 0.693710I$	$-2.92149 + 0.37470I$	0
$u = 0.029242 - 1.208530I$ $a = -0.617405 + 0.068815I$ $b = 0.518957 + 0.693710I$	$-2.92149 - 0.37470I$	0
$u = -0.641742 + 1.025310I$ $a = -1.219180 + 0.320633I$ $b = 0.272366 + 1.357620I$	$0.82861 - 7.28008I$	0
$u = -0.641742 - 1.025310I$ $a = -1.219180 - 0.320633I$ $b = 0.272366 - 1.357620I$	$0.82861 + 7.28008I$	0
$u = -0.650417 + 1.024970I$ $a = 1.40858 - 0.74419I$ $b = -0.423547 - 1.244820I$	$-4.08815 - 11.91020I$	0
$u = -0.650417 - 1.024970I$ $a = 1.40858 + 0.74419I$ $b = -0.423547 + 1.244820I$	$-4.08815 + 11.91020I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.712723+0.983533I$ $a=-1.91868+0.12999I$ $b=\ \ 0.82808+1.56668I$	$3.81128-6.27944I$	0
$u=-0.712723-0.983533I$ $a=-1.91868-0.12999I$ $b=\ \ 0.82808-1.56668I$	$3.81128+6.27944I$	0
$u=-0.739859+0.248224I$ $a=\ \ 0.062469-0.205950I$ $b=-0.709380-0.399632I$	$-4.68508+2.78224I$	0
$u=-0.739859-0.248224I$ $a=\ \ 0.062469+0.205950I$ $b=-0.709380+0.399632I$	$-4.68508-2.78224I$	0
$u=-0.730646+0.981361I$ $a=\ \ 2.03022-0.35934I$ $b=-1.16898-1.37560I$	$3.87111-7.59564I$	0
$u=-0.730646-0.981361I$ $a=\ \ 2.03022+0.35934I$ $b=-1.16898+1.37560I$	$3.87111+7.59564I$	0
$u=\ \ 0.748859+0.192735I$ $a=-0.022514-0.221999I$ $b=\ \ 0.09408-1.43962I$	$5.23899+2.86926I$	0
$u=\ \ 0.748859-0.192735I$ $a=-0.022514+0.221999I$ $b=\ \ 0.09408+1.43962I$	$5.23899-2.86926I$	0
$u=-0.513084+1.129440I$ $a=\ \ 0.447576-0.877045I$ $b=-0.768493+0.291284I$	$-7.26639-7.47879I$	0
$u=-0.513084-1.129440I$ $a=\ \ 0.447576+0.877045I$ $b=-0.768493-0.291284I$	$-7.26639+7.47879I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.114740 + 0.573036I$ $a = 0.0348572 - 0.0139373I$ $b = 0.364402 + 1.365640I$	$7.10723 - 5.68206I$	0
$u = 1.114740 - 0.573036I$ $a = 0.0348572 + 0.0139373I$ $b = 0.364402 - 1.365640I$	$7.10723 + 5.68206I$	0
$u = -1.014140 + 0.774406I$ $a = -0.948880 + 0.643711I$ $b = 0.120298 + 0.808713I$	$-0.16481 - 5.27948I$	0
$u = -1.014140 - 0.774406I$ $a = -0.948880 - 0.643711I$ $b = 0.120298 - 0.808713I$	$-0.16481 + 5.27948I$	0
$u = -0.706198 + 1.071170I$ $a = -1.92531 - 0.04256I$ $b = 0.49479 + 1.39918I$	$5.60927 - 12.24120I$	0
$u = -0.706198 - 1.071170I$ $a = -1.92531 + 0.04256I$ $b = 0.49479 - 1.39918I$	$5.60927 + 12.24120I$	0
$u = -0.659368 + 1.102190I$ $a = 0.503311 - 0.185028I$ $b = 0.000749 - 1.163180I$	$-1.89817 - 1.13198I$	0
$u = -0.659368 - 1.102190I$ $a = 0.503311 + 0.185028I$ $b = 0.000749 + 1.163180I$	$-1.89817 + 1.13198I$	0
$u = -0.749231 + 1.071850I$ $a = 1.67926 + 0.05155I$ $b = -0.449989 - 1.274220I$	$8.12800 - 7.43565I$	0
$u = -0.749231 - 1.071850I$ $a = 1.67926 - 0.05155I$ $b = -0.449989 + 1.274220I$	$8.12800 + 7.43565I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.288070+0.369375I$ $a=-0.0080112+0.0321890I$ $b=-0.054694-1.120350I$	$1.31139-5.27765I$	0
$u=-1.288070-0.369375I$ $a=-0.0080112-0.0321890I$ $b=-0.054694+1.120350I$	$1.31139+5.27765I$	0
$u=\ 0.650665+1.179690I$ $a=\ 0.360841+0.066101I$ $b=-0.467704-0.497082I$	$-2.78768+1.61743I$	0
$u=\ 0.650665-1.179690I$ $a=\ 0.360841-0.066101I$ $b=-0.467704+0.497082I$	$-2.78768-1.61743I$	0
$u=\ 0.754566+1.133770I$ $a=\ 1.74843+0.01336I$ $b=-0.68033+1.47245I$	$1.1673+18.9126I$	0
$u=\ 0.754566-1.133770I$ $a=\ 1.74843-0.01336I$ $b=-0.68033-1.47245I$	$1.1673-18.9126I$	0
$u=\ 0.776635+1.163340I$ $a=-1.50875+0.06588I$ $b=\ 0.53692-1.41485I$	$5.21792+12.41060I$	0
$u=\ 0.776635-1.163340I$ $a=-1.50875-0.06588I$ $b=\ 0.53692+1.41485I$	$5.21792-12.41060I$	0
$u=-0.175907+1.393180I$ $a=\ 0.673483+0.999963I$ $b=-0.407707-1.079560I$	$-5.33783-10.05150I$	0
$u=-0.175907-1.393180I$ $a=\ 0.673483-0.999963I$ $b=-0.407707+1.079560I$	$-5.33783+10.05150I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.578654$ $a=\ 0.256151$ $b=\ 0.532399$	-1.37140	-8.12570
$u=\ 1.01643+1.00483I$ $a=\ 0.901709+0.404328I$ $b=-0.440602+1.015060I$	$-1.28487+5.42977I$	0
$u=\ 1.01643-1.00483I$ $a=\ 0.901709-0.404328I$ $b=-0.440602-1.015060I$	$-1.28487-5.42977I$	0
$u=\ 0.525454+0.035532I$ $a=\ 0.236737-1.196220I$ $b=-0.108337+1.245330I$	$1.41585+0.45643I$	$-4.20408+0.77013I$
$u=\ 0.525454-0.035532I$ $a=\ 0.236737+1.196220I$ $b=-0.108337-1.245330I$	$1.41585-0.45643I$	$-4.20408-0.77013I$
$u=\ 0.202916+0.334224I$ $a=\ 0.01219+1.81079I$ $b=\ 0.364651-0.532024I$	$-0.63713+1.57551I$	$-3.37176-4.00623I$
$u=\ 0.202916-0.334224I$ $a=\ 0.01219-1.81079I$ $b=\ 0.364651+0.532024I$	$-0.63713-1.57551I$	$-3.37176+4.00623I$
$u=-0.48271+1.56914I$ $a=-0.479018-0.568749I$ $b=\ 0.129539+0.976763I$	$-2.89912-2.09494I$	0
$u=-0.48271-1.56914I$ $a=-0.479018+0.568749I$ $b=\ 0.129539-0.976763I$	$-2.89912+2.09494I$	0
$u=\ 0.178534+0.024861I$ $a=\ 5.45396+2.58788I$ $b=\ 0.235167-0.613487I$	$1.08961+1.79620I$	$3.50879-3.85872I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.178534 - 0.024861I$ $a = \quad 5.45396 - 2.58788I$ $b = \quad 0.235167 + 0.613487I$	$1.08961 - 1.79620I$	$3.50879 + 3.85872I$
$u = \quad 0.0220476 + 0.1266590I$ $a = -4.50146 + 12.90910I$ $b = -0.576354 + 0.450441I$	$-3.60660 + 6.09574I$	$-4.02485 - 11.23959I$
$u = \quad 0.0220476 - 0.1266590I$ $a = -4.50146 - 12.90910I$ $b = -0.576354 - 0.450441I$	$-3.60660 - 6.09574I$	$-4.02485 + 11.23959I$

II. $I_2^u = \langle -39u^{23} - 150u^{22} + \cdots + 11b + 5,\ 56u^{23} + 267u^{22} + \cdots + 11a + 144,\ u^{24} + 4u^{23} + \cdots + 4u + 1 \rangle$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -5.09091u^{23} - 24.2727u^{22} + \cdots - 45.2727u - 13.0909 \\ 3.54545u^{23} + 13.6364u^{22} + \cdots + 7.63636u - 0.454545 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -1.81818u^{23} - 6.45455u^{22} + \cdots + 10.5455u + 5.18182 \\ 2.54545u^{23} + 9.63636u^{22} + \cdots + 15.6364u + 4.54545 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 6.27273u^{23} + 21.8182u^{22} + \cdots - 0.181818u - 1.72727 \\ -0.727273u^{23} - 2.18182u^{22} + \cdots - 3.18182u + 1.27273 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -1.54545u^{23} - 10.6364u^{22} + \cdots - 37.6364u - 13.5455 \\ 3.54545u^{23} + 13.6364u^{22} + \cdots + 7.63636u - 0.454545 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -7.54545u^{23} - 25.6364u^{22} + \cdots - 22.6364u - 2.54545 \\ -3.54545u^{23} - 13.6364u^{22} + \cdots - 27.6364u - 8.54545 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -1.81818u^{23} - 7.45455u^{22} + \cdots + 7.54545u + 4.18182 \\ 2.54545u^{23} + 9.63636u^{22} + \cdots + 16.6364u + 4.54545 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.727273u^{23} + 4.18182u^{22} + \cdots + 19.1818u + 2.72727 \\ -0.272727u^{23} - 1.81818u^{22} + \cdots - 14.8182u - 5.27273 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{183}{11}u^{23} + \frac{670}{11}u^{22} + \cdots + \frac{340}{11}u - \frac{70}{11}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{24} - 12u^{23} + \cdots - 12u + 1$
c_2	$u^{24} - 4u^{23} + \cdots - 4u + 1$
c_3	$u^{24} - 7u^{22} + \cdots - 2u + 1$
c_4	$u^{24} + 6u^{23} + \cdots + 8u + 1$
c_5	$u^{24} - 4u^{23} + \cdots + 4u + 1$
c_6	$u^{24} + 4u^{23} + \cdots + 4u + 1$
c_7	$u^{24} - 4u^{23} + \cdots + 2u + 1$
c_8	$u^{24} - 7u^{22} + \cdots + 2u + 1$
c_9	$u^{24} + 6u^{23} + \cdots + 7u + 1$
c_{10}	$u^{24} + 4u^{23} + \cdots - 2u + 1$
c_{11}	$u^{24} + 4u^{23} + \cdots - 4u + 1$
c_{12}	$u^{24} - 6u^{23} + \cdots - 7u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{24} + 8y^{23} + \cdots + 24y + 1$
c_2, c_6	$y^{24} + 12y^{23} + \cdots + 12y + 1$
c_3, c_8	$y^{24} - 14y^{23} + \cdots - 14y + 1$
c_4	$y^{24} + 2y^{23} + \cdots + 12y + 1$
c_5, c_{11}	$y^{24} + 16y^{23} + \cdots + 14y + 1$
c_7, c_{10}	$y^{24} + 20y^{23} + \cdots + 10y + 1$
c_9, c_{12}	$y^{24} + 18y^{23} + \cdots - 3y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.611597 + 0.813694I$ $a = 0.11641 + 1.70002I$ $b = 0.007923 + 1.102440I$	$0.44206 + 1.95809I$	$2.78743 - 1.68178I$
$u = 0.611597 - 0.813694I$ $a = 0.11641 - 1.70002I$ $b = 0.007923 - 1.102440I$	$0.44206 - 1.95809I$	$2.78743 + 1.68178I$
$u = -0.733693 + 0.705714I$ $a = 0.352837 + 0.614432I$ $b = 0.81451 - 1.70784I$	$5.73223 + 1.99252I$	$4.17355 - 3.34337I$
$u = -0.733693 - 0.705714I$ $a = 0.352837 - 0.614432I$ $b = 0.81451 + 1.70784I$	$5.73223 - 1.99252I$	$4.17355 + 3.34337I$
$u = 0.611397 + 0.760742I$ $a = -1.57719 - 0.59367I$ $b = 0.442973 - 1.006840I$	$0.43945 + 3.77586I$	$-0.82140 - 7.19861I$
$u = 0.611397 - 0.760742I$ $a = -1.57719 + 0.59367I$ $b = 0.442973 + 1.006840I$	$0.43945 - 3.77586I$	$-0.82140 + 7.19861I$
$u = 0.356696 + 0.897403I$ $a = -0.395218 - 0.812692I$ $b = 0.498896 + 0.703562I$	$-0.556702 - 0.076232I$	$-4.43370 - 0.67349I$
$u = 0.356696 - 0.897403I$ $a = -0.395218 + 0.812692I$ $b = 0.498896 - 0.703562I$	$-0.556702 + 0.076232I$	$-4.43370 + 0.67349I$
$u = 0.365017 + 0.989628I$ $a = -0.83385 + 1.93108I$ $b = 0.104947 - 0.871666I$	$-0.54247 + 2.30604I$	$4.18338 - 2.62575I$
$u = 0.365017 - 0.989628I$ $a = -0.83385 - 1.93108I$ $b = 0.104947 + 0.871666I$	$-0.54247 - 2.30604I$	$4.18338 + 2.62575I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.052022 + 0.882585I$ $a = -0.85446 + 1.87766I$ $b = 0.470079 - 0.695301I$	$-0.04364 + 2.18124I$	$-3.60279 - 4.63290I$
$u = 0.052022 - 0.882585I$ $a = -0.85446 - 1.87766I$ $b = 0.470079 + 0.695301I$	$-0.04364 - 2.18124I$	$-3.60279 + 4.63290I$
$u = -0.356580 + 1.141620I$ $a = -0.128060 - 0.166690I$ $b = -0.418366 - 0.303791I$	$-6.06103 - 8.13258I$	$-6.43614 + 6.28765I$
$u = -0.356580 - 1.141620I$ $a = -0.128060 + 0.166690I$ $b = -0.418366 + 0.303791I$	$-6.06103 + 8.13258I$	$-6.43614 - 6.28765I$
$u = -0.697780 + 0.990941I$ $a = -2.09235 + 0.19843I$ $b = 1.05404 + 1.49140I$	$4.86722 - 7.48253I$	$2.52536 + 7.67443I$
$u = -0.697780 - 0.990941I$ $a = -2.09235 - 0.19843I$ $b = 1.05404 - 1.49140I$	$4.86722 + 7.48253I$	$2.52536 - 7.67443I$
$u = -0.204479 + 0.646867I$ $a = 1.01827 - 3.35456I$ $b = -0.679192 + 0.297749I$	$-3.99282 + 5.60928I$	$-11.99628 - 1.79914I$
$u = -0.204479 - 0.646867I$ $a = 1.01827 + 3.35456I$ $b = -0.679192 - 0.297749I$	$-3.99282 - 5.60928I$	$-11.99628 + 1.79914I$
$u = -1.120150 + 0.751735I$ $a = 0.708592 - 0.721148I$ $b = -0.414350 - 0.788427I$	$-0.75272 - 5.98771I$	$-4.8707 + 13.5332I$
$u = -1.120150 - 0.751735I$ $a = 0.708592 + 0.721148I$ $b = -0.414350 + 0.788427I$	$-0.75272 + 5.98771I$	$-4.8707 - 13.5332I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.371341+0.383245I$ $a=-1.32170+0.71351I$ $b=\ \ 0.16832+1.72632I$	$4.26144-2.68976I$	$-5.77212+1.21347I$
$u=-0.371341-0.383245I$ $a=-1.32170-0.71351I$ $b=\ \ 0.16832-1.72632I$	$4.26144+2.68976I$	$-5.77212-1.21347I$
$u=-0.51270+1.46373I$ $a=\ \ 0.0067233+0.0528660I$ $b=-0.049781+0.631929I$	$-3.79302-1.47864I$	$-16.2366+1.3982I$
$u=-0.51270-1.46373I$ $a=\ \ 0.0067233-0.0528660I$ $b=-0.049781-0.631929I$	$-3.79302+1.47864I$	$-16.2366-1.3982I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{24}-12u^{23}+\cdots-12u+1)(u^{123}+47u^{122}+\cdots-78u-1)$
c_2	$(u^{24}-4u^{23}+\cdots-4u+1)(u^{123}-u^{122}+\cdots-20u+1)$
c_3	$(u^{24}-7u^{22}+\cdots-2u+1)(u^{123}-u^{122}+\cdots-96274u+98677)$
c_4	$(u^{24}+6u^{23}+\cdots+8u+1)(u^{123}-3u^{122}+\cdots-639124u+39811)$
c_5	$(u^{24}-4u^{23}+\cdots+4u+1)(u^{123}+5u^{122}+\cdots+1222892u+197593)$
c_6	$(u^{24}+4u^{23}+\cdots+4u+1)(u^{123}-u^{122}+\cdots-20u+1)$
c_7	$(u^{24}-4u^{23}+\cdots+2u+1)(u^{123}-5u^{122}+\cdots-16144u+3433)$
c_8	$(u^{24}-7u^{22}+\cdots+2u+1)(u^{123}-u^{122}+\cdots-96274u+98677)$
c_9	$(u^{24}+6u^{23}+\cdots+7u+1)(u^{123}+5u^{122}+\cdots-10837u+889)$
c_{10}	$(u^{24}+4u^{23}+\cdots-2u+1)(u^{123}-5u^{122}+\cdots-16144u+3433)$
c_{11}	$(u^{24}+4u^{23}+\cdots-4u+1)(u^{123}+5u^{122}+\cdots+1222892u+197593)$
c_{12}	$(u^{24}-6u^{23}+\cdots-7u+1)(u^{123}+5u^{122}+\cdots-10837u+889)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{24}+8y^{23}+\cdots+24y+1)(y^{123}+67y^{122}+\cdots+7218y-1)$
c_2, c_6	$(y^{24}+12y^{23}+\cdots+12y+1)(y^{123}+47y^{122}+\cdots-78y-1)$
c_3, c_8	$(y^{24}-14y^{23}+\cdots-14y+1)$ $\cdot(y^{123}-79y^{122}+\cdots+21540154796y-9737150329)$
c_4	$(y^{24}+2y^{23}+\cdots+12y+1)$ $\cdot(y^{123}-23y^{122}+\cdots+63443203538y-1584915721)$
c_5, c_{11}	$(y^{24}+16y^{23}+\cdots+14y+1)$ $\cdot(y^{123}+91y^{122}+\cdots-210187966472y-39042993649)$
c_7, c_{10}	$(y^{24}+20y^{23}+\cdots+10y+1)$ $\cdot(y^{123}+91y^{122}+\cdots-3783445264y-11785489)$
c_9, c_{12}	$(y^{24}+18y^{23}+\cdots-3y+1)$ $\cdot(y^{123}+81y^{122}+\cdots-9554859y-790321)$