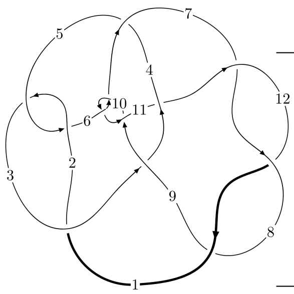
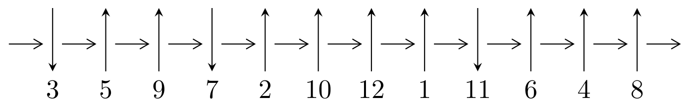
$12a_{0186}$ $(K12a_{0186})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle &-7.83274 \times 10^{205} u^{101} + 3.91863 \times 10^{206} u^{100} + \cdots + 3.50853 \times 10^{206} b + 1.57493 \times 10^{206}, \\
&1.45541 \times 10^{206} u^{101} - 5.81604 \times 10^{206} u^{100} + \cdots + 3.50853 \times 10^{206} a - 4.94259 \times 10^{206}, \\
&u^{102} - 3u^{101} + \cdots + 8u^2 - 1 \rangle \\
I_2^u = \langle &b + a,\ -21u^2 a + 49a^2 + 35au + 10u^2 - 7a - 19u + 22,\ u^3 - u^2 + 1 \rangle
\end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 108 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. $\boldsymbol{I_1^u = \langle -7.83 \times 10^{205} u^{101} + 3.92 \times 10^{206} u^{100} + \cdots + 3.51 \times 10^{206} b + 1.57 \times 10^{206},\ 1.46 \times 10^{206} u^{101} - 5.82 \times 10^{206} u^{100} + \cdots + 3.51 \times 10^{206} a - 4.94 \times 10^{206},\ u^{102} - 3u^{101} + \cdots + 8u^2 - 1 \rangle}$

(i) Arc colorings

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

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.414820u^{101} + 1.65768u^{100} + \cdots - 2.81202u + 1.40873 \\ 0.223249u^{101} - 1.11689u^{100} + \cdots + 4.14860u - 0.448887 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.476650u^{101} + 1.78872u^{100} + \cdots - 6.54580u + 1.44440 \\ -0.106382u^{101} + 0.250932u^{100} + \cdots + 4.21043u - 0.394429 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.643889u^{101} - 1.30576u^{100} + \cdots + 0.763924u + 0.781537 \\ -1.78169u^{101} + 3.56162u^{100} + \cdots + 1.44173u - 1.38730 \end{pmatrix}$$

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

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

$$a_5 = \begin{pmatrix} -0.498144u^{101} + 1.88558u^{100} + \cdots - 6.66075u + 1.65027 \\ -0.184868u^{101} + 0.302979u^{100} + \cdots + 3.65716u - 0.275453 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.649518u^{101} - 1.16680u^{100} + \cdots + 1.05959u - 0.0364924 \\ -0.379081u^{101} + 0.596176u^{100} + \cdots - 0.990884u - 0.301947 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -1.00635u^{101} + 1.44490u^{100} + \cdots - 0.159676u + 0.574120 \\ 1.43698u^{101} - 2.29172u^{100} + \cdots + 0.720833u + 0.738916 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.270437u^{101} + 0.570627u^{100} + \cdots - 0.0687015u + 0.338440 \\ -0.379081u^{101} + 0.596176u^{100} + \cdots - 0.990884u - 0.301947 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -1.59541u^{101} + 0.803708u^{100} + \cdots + 5.97952u + 6.60121$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{102} + 36u^{101} + \cdots - 20973u + 2401$
c_2, c_5	$u^{102} + 4u^{101} + \cdots - 197u + 49$
c_3	$49(49u^{102} - 70u^{101} + \cdots - 5.45423 \times 10^8 u - 2.55402 \times 10^8)$
c_4	$49(49u^{102} - 126u^{101} + \cdots + 2407086u + 356047)$
c_6, c_{10}	$u^{102} - 3u^{101} + \cdots + 6u - 1$
c_7, c_8, c_{12}	$u^{102} - 3u^{101} + \cdots + 8u^2 - 1$
c_9	$u^{102} + 43u^{101} + \cdots - 16u + 1$
c_{11}	$u^{102} - 5u^{101} + \cdots + 174048u - 21952$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{102} + 64y^{101} + \cdots - 2635965389y + 5764801$
c_2, c_5	$y^{102} + 36y^{101} + \cdots - 20973y + 2401$
c_3	$2401(2401y^{102} - 211092y^{101} + \cdots - 1.97644 \times 10^{18}y + 6.52300 \times 10^{16})$
c_4	2401 $\cdot (2401y^{102} + 47530y^{101} + \cdots - 8262494848850y + 126769466209)$
c_6, c_{10}	$y^{102} + 43y^{101} + \cdots - 16y + 1$
c_7, c_8, c_{12}	$y^{102} - 101y^{101} + \cdots - 16y + 1$
c_9	$y^{102} + 35y^{101} + \cdots + 372y + 1$
c_{11}	$y^{102} - 35y^{101} + \cdots - 8007738368y + 481890304$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.463265 + 0.883839I$ $a = 0.035861 + 0.629190I$ $b = -0.374833 + 0.308984I$	$4.20876 + 2.87950I$	0
$u = 0.463265 - 0.883839I$ $a = 0.035861 - 0.629190I$ $b = -0.374833 - 0.308984I$	$4.20876 - 2.87950I$	0
$u = -0.577868 + 0.813521I$ $a = 0.472549 + 0.598092I$ $b = 0.909310 - 0.193187I$	$1.8572 - 14.1354I$	0
$u = -0.577868 - 0.813521I$ $a = 0.472549 - 0.598092I$ $b = 0.909310 + 0.193187I$	$1.8572 + 14.1354I$	0
$u = 0.954849 + 0.281344I$ $a = -0.041980 - 0.257493I$ $b = 0.307337 - 0.426122I$	$0.469698 + 0.856662I$	0
$u = 0.954849 - 0.281344I$ $a = -0.041980 + 0.257493I$ $b = 0.307337 + 0.426122I$	$0.469698 - 0.856662I$	0
$u = 0.570625 + 0.835524I$ $a = -0.368172 + 0.608065I$ $b = -0.798500 - 0.073995I$	$3.77268 + 8.13531I$	0
$u = 0.570625 - 0.835524I$ $a = -0.368172 - 0.608065I$ $b = -0.798500 + 0.073995I$	$3.77268 - 8.13531I$	0
$u = 0.645597 + 0.723769I$ $a = 0.473710 - 0.425187I$ $b = 0.771863 - 0.005327I$	$4.91261 + 2.43397I$	0
$u = 0.645597 - 0.723769I$ $a = 0.473710 + 0.425187I$ $b = 0.771863 + 0.005327I$	$4.91261 - 2.43397I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.573506 + 0.862250I$ $a = 0.260008 - 0.666688I$ $b = -0.325821 - 0.399726I$	$1.77977 + 8.59624I$	0
$u = -0.573506 - 0.862250I$ $a = 0.260008 + 0.666688I$ $b = -0.325821 + 0.399726I$	$1.77977 - 8.59624I$	0
$u = 0.625060 + 0.855119I$ $a = -0.072253 - 0.595095I$ $b = 0.424918 - 0.290495I$	$3.86224 - 2.49227I$	0
$u = 0.625060 - 0.855119I$ $a = -0.072253 + 0.595095I$ $b = 0.424918 + 0.290495I$	$3.86224 + 2.49227I$	0
$u = -0.620905 + 0.706635I$ $a = -0.630977 - 0.363939I$ $b = -0.865313 + 0.085922I$	$3.41050 - 8.30399I$	0
$u = -0.620905 - 0.706635I$ $a = -0.630977 + 0.363939I$ $b = -0.865313 - 0.085922I$	$3.41050 + 8.30399I$	0
$u = -0.413392 + 0.842069I$ $a = -0.198359 + 0.651935I$ $b = 0.204367 + 0.456259I$	$2.71161 + 3.24755I$	0
$u = -0.413392 - 0.842069I$ $a = -0.198359 - 0.651935I$ $b = 0.204367 - 0.456259I$	$2.71161 - 3.24755I$	0
$u = -0.636919 + 0.931863I$ $a = 0.212442 + 0.374659I$ $b = 0.398835 - 0.155929I$	$-3.21005 - 5.48312I$	0
$u = -0.636919 - 0.931863I$ $a = 0.212442 - 0.374659I$ $b = 0.398835 + 0.155929I$	$-3.21005 + 5.48312I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.007680 + 0.591458I$ $a = 0.183227 - 0.022455I$ $b = -0.112994 - 0.513226I$	$-3.52837 - 4.73810I$	0
$u = -1.007680 - 0.591458I$ $a = 0.183227 + 0.022455I$ $b = -0.112994 + 0.513226I$	$-3.52837 + 4.73810I$	0
$u = -0.683434 + 0.363431I$ $a = 0.298305 - 0.422340I$ $b = -0.606073 - 0.754369I$	$-2.25139 + 3.24449I$	0
$u = -0.683434 - 0.363431I$ $a = 0.298305 + 0.422340I$ $b = -0.606073 + 0.754369I$	$-2.25139 - 3.24449I$	0
$u = -0.850848 + 0.891750I$ $a = -0.009513 - 0.251567I$ $b = -0.350113 + 0.018910I$	$-2.71812 - 0.96266I$	0
$u = -0.850848 - 0.891750I$ $a = -0.009513 + 0.251567I$ $b = -0.350113 - 0.018910I$	$-2.71812 + 0.96266I$	0
$u = -0.248176 + 0.709636I$ $a = 0.975285 + 0.448105I$ $b = 0.373511 - 0.188307I$	$-5.59230 + 0.19794I$	0
$u = -0.248176 - 0.709636I$ $a = 0.975285 - 0.448105I$ $b = 0.373511 + 0.188307I$	$-5.59230 - 0.19794I$	0
$u = -0.531434 + 0.485622I$ $a = -0.403276 + 0.205773I$ $b = -0.499838 + 0.308340I$	$-2.05892 - 1.75560I$	$2.99481 + 4.92518I$
$u = -0.531434 - 0.485622I$ $a = -0.403276 - 0.205773I$ $b = -0.499838 - 0.308340I$	$-2.05892 + 1.75560I$	$2.99481 - 4.92518I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.302550 + 0.030953I$ $a = -0.09799 + 1.82910I$ $b = 0.52176 - 1.51246I$	$4.38155 - 0.95243I$	0
$u = 1.302550 - 0.030953I$ $a = -0.09799 - 1.82910I$ $b = 0.52176 + 1.51246I$	$4.38155 + 0.95243I$	0
$u = -0.331178 + 0.573078I$ $a = 1.49364 + 1.09467I$ $b = 0.537434 - 0.209557I$	$-3.34096 - 6.68172I$	$1.38828 + 9.11332I$
$u = -0.331178 - 0.573078I$ $a = 1.49364 - 1.09467I$ $b = 0.537434 + 0.209557I$	$-3.34096 + 6.68172I$	$1.38828 - 9.11332I$
$u = -1.356920 + 0.044854I$ $a = 1.93962 + 2.56034I$ $b = -2.34234 - 2.36543I$	$4.60358 - 3.83826I$	0
$u = -1.356920 - 0.044854I$ $a = 1.93962 - 2.56034I$ $b = -2.34234 + 2.36543I$	$4.60358 + 3.83826I$	0
$u = 1.392320 + 0.193973I$ $a = -1.361140 - 0.145231I$ $b = 2.13438 + 0.72591I$	$-0.40709 + 2.94965I$	0
$u = 1.392320 - 0.193973I$ $a = -1.361140 + 0.145231I$ $b = 2.13438 - 0.72591I$	$-0.40709 - 2.94965I$	0
$u = 0.238337 + 0.527550I$ $a = -0.88698 + 1.20969I$ $b = -0.554896 - 0.179442I$	$-1.56944 + 2.20050I$	$3.50144 - 4.94016I$
$u = 0.238337 - 0.527550I$ $a = -0.88698 - 1.20969I$ $b = -0.554896 + 0.179442I$	$-1.56944 - 2.20050I$	$3.50144 + 4.94016I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.43398 + 0.08205I$ $a = 2.14168 - 0.02876I$ $b = -2.86553 - 0.26922I$	$4.10044 - 3.96620I$	0
$u = -1.43398 - 0.08205I$ $a = 2.14168 + 0.02876I$ $b = -2.86553 + 0.26922I$	$4.10044 + 3.96620I$	0
$u = -1.43341 + 0.13902I$ $a = 2.02100 + 0.05752I$ $b = -3.17918 + 0.14402I$	$3.87436 - 4.46338I$	0
$u = -1.43341 - 0.13902I$ $a = 2.02100 - 0.05752I$ $b = -3.17918 - 0.14402I$	$3.87436 + 4.46338I$	0
$u = 0.555079 + 0.064471I$ $a = 2.01633 + 1.39157I$ $b = 0.267624 - 0.229465I$	$3.09413 - 0.79742I$	$15.9448 + 0.0041I$
$u = 0.555079 - 0.064471I$ $a = 2.01633 - 1.39157I$ $b = 0.267624 + 0.229465I$	$3.09413 + 0.79742I$	$15.9448 - 0.0041I$
$u = -0.542802 + 0.100561I$ $a = -1.78669 + 2.04178I$ $b = -0.291885 - 0.324437I$	$2.93517 - 4.09723I$	$15.0428 + 7.4403I$
$u = -0.542802 - 0.100561I$ $a = -1.78669 - 2.04178I$ $b = -0.291885 + 0.324437I$	$2.93517 + 4.09723I$	$15.0428 - 7.4403I$
$u = -1.45457 + 0.00026I$ $a = -3.91802 + 2.34344I$ $b = 4.10714 - 2.07963I$	$5.01824 - 0.26285I$	0
$u = -1.45457 - 0.00026I$ $a = -3.91802 - 2.34344I$ $b = 4.10714 + 2.07963I$	$5.01824 + 0.26285I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.44682 + 0.16164I$ $a = -2.08341 - 0.23008I$ $b = 3.41637 + 0.72748I$	$2.41336 + 9.25279I$	0
$u = 1.44682 - 0.16164I$ $a = -2.08341 + 0.23008I$ $b = 3.41637 - 0.72748I$	$2.41336 - 9.25279I$	0
$u = 0.438840 + 0.304153I$ $a = -0.37871 + 3.16877I$ $b = 0.000805 - 0.274983I$	$0.99489 + 6.60455I$	$9.1908 - 11.8145I$
$u = 0.438840 - 0.304153I$ $a = -0.37871 - 3.16877I$ $b = 0.000805 + 0.274983I$	$0.99489 - 6.60455I$	$9.1908 + 11.8145I$
$u = 1.47118 + 0.03655I$ $a = 0.225848 - 0.757857I$ $b = -0.254049 + 0.004641I$	$6.45968 + 2.80804I$	0
$u = 1.47118 - 0.03655I$ $a = 0.225848 + 0.757857I$ $b = -0.254049 - 0.004641I$	$6.45968 - 2.80804I$	0
$u = -0.445734 + 0.249585I$ $a = -0.09740 + 3.08006I$ $b = -0.118542 - 0.379389I$	$1.62557 - 1.89948I$	$11.64063 + 5.47837I$
$u = -0.445734 - 0.249585I$ $a = -0.09740 - 3.08006I$ $b = -0.118542 + 0.379389I$	$1.62557 + 1.89948I$	$11.64063 - 5.47837I$
$u = 1.49066 + 0.00722I$ $a = 1.95997 + 0.26537I$ $b = -2.32422 - 0.51113I$	$4.98713 + 2.80685I$	0
$u = 1.49066 - 0.00722I$ $a = 1.95997 - 0.26537I$ $b = -2.32422 + 0.51113I$	$4.98713 - 2.80685I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.48883 + 0.07877I$ $a = 1.23379 + 0.94819I$ $b = -2.17835 - 2.35342I$	$7.34892 - 7.92883I$	0
$u = -1.48883 - 0.07877I$ $a = 1.23379 - 0.94819I$ $b = -2.17835 + 2.35342I$	$7.34892 + 7.92883I$	0
$u = 1.49016 + 0.06629I$ $a = -0.695866 + 0.847577I$ $b = 1.22694 - 2.31857I$	$8.00924 + 3.00206I$	0
$u = 1.49016 - 0.06629I$ $a = -0.695866 - 0.847577I$ $b = 1.22694 + 2.31857I$	$8.00924 - 3.00206I$	0
$u = -1.49232$ $a = -1.81358$ $b = 2.56753$	7.18734	0
$u = 1.50974 + 0.02638I$ $a = 1.57497 + 0.79438I$ $b = -2.75438 - 2.05820I$	$9.69521 + 4.54334I$	0
$u = 1.50974 - 0.02638I$ $a = 1.57497 - 0.79438I$ $b = -2.75438 + 2.05820I$	$9.69521 - 4.54334I$	0
$u = -1.51090 + 0.01774I$ $a = -1.88274 + 0.55860I$ $b = 3.30537 - 1.45935I$	$9.88746 + 0.50387I$	0
$u = -1.51090 - 0.01774I$ $a = -1.88274 - 0.55860I$ $b = 3.30537 + 1.45935I$	$9.88746 - 0.50387I$	0
$u = 0.283962 + 0.396183I$ $a = -0.64955 + 1.95378I$ $b = -0.490466 - 0.348361I$	$-1.42104 + 2.40116I$	$2.87491 - 6.25860I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.283962 - 0.396183I$ $a = -0.64955 - 1.95378I$ $b = -0.490466 + 0.348361I$	$-1.42104 - 2.40116I$	$2.87491 + 6.25860I$
$u = 0.457504$ $a = 0.629904$ $b = 0.399832$	0.720872	13.9880
$u = -0.016041 + 0.449349I$ $a = -0.033429 + 0.542654I$ $b = -0.287665 + 0.922896I$	$0.87311 + 2.39546I$	$3.08710 - 3.61565I$
$u = -0.016041 - 0.449349I$ $a = -0.033429 - 0.542654I$ $b = -0.287665 - 0.922896I$	$0.87311 - 2.39546I$	$3.08710 + 3.61565I$
$u = 0.392748 + 0.215550I$ $a = -0.469063 - 0.870049I$ $b = 1.52815 - 0.13896I$	$-0.880180 - 0.202294I$	$9.92790 - 3.57486I$
$u = 0.392748 - 0.215550I$ $a = -0.469063 + 0.870049I$ $b = 1.52815 + 0.13896I$	$-0.880180 + 0.202294I$	$9.92790 + 3.57486I$
$u = 1.56060 + 0.23251I$ $a = 1.87185 + 0.03629I$ $b = -2.88208 - 0.61189I$	$10.5879 + 11.7701I$	0
$u = 1.56060 - 0.23251I$ $a = 1.87185 - 0.03629I$ $b = -2.88208 + 0.61189I$	$10.5879 - 11.7701I$	0
$u = 1.54397 + 0.34268I$ $a = -0.788558 + 0.471126I$ $b = 1.46417 - 0.57180I$	$9.02348 + 1.22948I$	0
$u = 1.54397 - 0.34268I$ $a = -0.788558 - 0.471126I$ $b = 1.46417 + 0.57180I$	$9.02348 - 1.22948I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.55874 + 0.27948I$ $a = -1.91507 + 0.03940I$ $b = 2.88329 + 0.47808I$	$8.8410 + 18.1545I$	0
$u = 1.55874 - 0.27948I$ $a = -1.91507 - 0.03940I$ $b = 2.88329 - 0.47808I$	$8.8410 - 18.1545I$	0
$u = -1.56710 + 0.23333I$ $a = -1.75578 - 0.08898I$ $b = 2.74749 - 0.34774I$	$12.19110 - 5.95346I$	0
$u = -1.56710 - 0.23333I$ $a = -1.75578 + 0.08898I$ $b = 2.74749 + 0.34774I$	$12.19110 + 5.95346I$	0
$u = -1.55962 + 0.28624I$ $a = 1.75143 + 0.15406I$ $b = -2.70324 + 0.25575I$	$10.7337 - 12.2501I$	0
$u = -1.55962 - 0.28624I$ $a = 1.75143 - 0.15406I$ $b = -2.70324 - 0.25575I$	$10.7337 + 12.2501I$	0
$u = -1.55677 + 0.31983I$ $a = 1.101370 + 0.405380I$ $b = -1.88769 - 0.35195I$	$10.82960 - 7.34873I$	0
$u = -1.55677 - 0.31983I$ $a = 1.101370 - 0.405380I$ $b = -1.88769 + 0.35195I$	$10.82960 + 7.34873I$	0
$u = 1.58135 + 0.20767I$ $a = 1.368960 + 0.109802I$ $b = -2.01584 - 0.48289I$	$5.42779 + 4.37394I$	0
$u = 1.58135 - 0.20767I$ $a = 1.368960 - 0.109802I$ $b = -2.01584 + 0.48289I$	$5.42779 - 4.37394I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.58119 + 0.29246I$ $a = -1.357780 - 0.100362I$ $b = 2.06030 + 0.46043I$	$4.04057 + 9.87187I$	0
$u = 1.58119 - 0.29246I$ $a = -1.357780 + 0.100362I$ $b = 2.06030 - 0.46043I$	$4.04057 - 9.87187I$	0
$u = -1.59811 + 0.24702I$ $a = -1.224820 - 0.342555I$ $b = 1.99240 + 0.30445I$	$11.32910 - 1.56007I$	0
$u = -1.59811 - 0.24702I$ $a = -1.224820 + 0.342555I$ $b = 1.99240 - 0.30445I$	$11.32910 + 1.56007I$	0
$u = 1.61200 + 0.27101I$ $a = 0.953114 - 0.445941I$ $b = -1.59265 + 0.57540I$	$9.05980 - 4.29630I$	0
$u = 1.61200 - 0.27101I$ $a = 0.953114 + 0.445941I$ $b = -1.59265 - 0.57540I$	$9.05980 + 4.29630I$	0
$u = 0.164335 + 0.323160I$ $a = -0.721035 - 0.095193I$ $b = 2.40661 + 0.06716I$	$0.29109 - 4.52781I$	$-3.87388 - 8.97650I$
$u = 0.164335 - 0.323160I$ $a = -0.721035 + 0.095193I$ $b = 2.40661 - 0.06716I$	$0.29109 + 4.52781I$	$-3.87388 + 8.97650I$
$u = -0.082582 + 0.350538I$ $a = 0.593106 + 0.388987I$ $b = -2.14141 + 0.19216I$	$0.587367 + 0.070231I$	$-8.68234 + 3.83864I$
$u = -0.082582 - 0.350538I$ $a = 0.593106 - 0.388987I$ $b = -2.14141 - 0.19216I$	$0.587367 - 0.070231I$	$-8.68234 - 3.83864I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.333864 + 0.112052I$ $a = -0.02338 + 2.26835I$ $b = -0.390438 - 0.889436I$	$0.44723 - 2.25038I$	$0.19611 + 5.31591I$
$u = -0.333864 - 0.112052I$ $a = -0.02338 - 2.26835I$ $b = -0.390438 + 0.889436I$	$0.44723 + 2.25038I$	$0.19611 - 5.31591I$

II. $I_2^u = \langle b + a,\ -21u^2a + 10u^2 + \cdots - 7a + 22,\ u^3 - u^2 + 1\rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} a \\ -a \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^2a + 2a \\ -au - 2a \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u^2a - u^2 + 2a + u \\ -au + \frac{4}{7}u^2 - 2a - \frac{2}{7}u - \frac{1}{7} \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -u \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u^2 + 1 \\ u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u^2a + 2a \\ u^2a - a \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u \\ -u^2 + u + 1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 0 \\ -u \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{82}{7}u^2a - \frac{71}{7}au + \frac{19}{49}u^2 + \frac{17}{7}a - \frac{237}{49}u + \frac{326}{49}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$(u^2 - u + 1)^3$
c_2	$(u^2 + u + 1)^3$
c_3	$49(49u^6 + 7u^5 - 6u^4 + 15u^3 + 2u^2 - u + 1)$
c_4	$49(49u^6 - 7u^5 + 29u^4 + 18u^3 + 15u^2 + 4u + 1)$
c_6	$(u^3 + u^2 + 2u + 1)^2$
c_7, c_8	$(u^3 - u^2 + 1)^2$
c_9	$(u^3 - 3u^2 + 2u + 1)^2$
c_{10}	$(u^3 - u^2 + 2u - 1)^2$
c_{11}	u^6
c_{12}	$(u^3 + u^2 - 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_5	$(y^2 + y + 1)^3$
c_3	$2401(2401y^6 - 637y^5 + 22y^4 - 137y^3 + 22y^2 + 3y + 1)$
c_4	$2401(2401y^6 + 2793y^5 + 2563y^4 + 700y^3 + 139y^2 + 14y + 1)$
c_6, c_{10}	$(y^3 + 3y^2 + 2y - 1)^2$
c_7, c_8, c_{12}	$(y^3 - y^2 + 2y - 1)^2$
c_9	$(y^3 - 5y^2 + 10y - 1)^2$
c_{11}	y^6

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.877439 + 0.744862I$ $a = -0.171467 + 0.353309I$ $b = 0.171467 - 0.353309I$	$-3.02413 + 0.79824I$	$-2.96264 + 4.86376I$
$u = 0.877439 + 0.744862I$ $a = -0.220241 - 0.325149I$ $b = 0.220241 + 0.325149I$	$-3.02413 + 4.85801I$	$12.11332 - 2.35134I$
$u = 0.877439 - 0.744862I$ $a = -0.171467 - 0.353309I$ $b = 0.171467 + 0.353309I$	$-3.02413 - 0.79824I$	$-2.96264 - 4.86376I$
$u = 0.877439 - 0.744862I$ $a = -0.220241 + 0.325149I$ $b = 0.220241 - 0.325149I$	$-3.02413 - 4.85801I$	$12.11332 + 2.35134I$
$u = -0.754878$ $a = 0.463136 + 0.802176I$ $b = -0.463136 - 0.802176I$	$1.11345 - 2.02988I$	$12.10442 + 2.73535I$
$u = -0.754878$ $a = 0.463136 - 0.802176I$ $b = -0.463136 + 0.802176I$	$1.11345 + 2.02988I$	$12.10442 - 2.73535I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^2-u+1)^3)(u^{102}+36u^{101}+\cdots-20973u+2401)$
c_2	$((u^2+u+1)^3)(u^{102}+4u^{101}+\cdots-197u+49)$
c_3	$2401(49u^6+7u^5-6u^4+15u^3+2u^2-u+1)$ $\cdot\,(49u^{102}-70u^{101}+\cdots-545422911u-255401567)$
c_4	$2401(49u^6-7u^5+29u^4+18u^3+15u^2+4u+1)$ $\cdot\,(49u^{102}-126u^{101}+\cdots+2407086u+356047)$
c_5	$((u^2-u+1)^3)(u^{102}+4u^{101}+\cdots-197u+49)$
c_6	$((u^3+u^2+2u+1)^2)(u^{102}-3u^{101}+\cdots+6u-1)$
c_7, c_8	$((u^3-u^2+1)^2)(u^{102}-3u^{101}+\cdots+8u^2-1)$
c_9	$((u^3-3u^2+2u+1)^2)(u^{102}+43u^{101}+\cdots-16u+1)$
c_{10}	$((u^3-u^2+2u-1)^2)(u^{102}-3u^{101}+\cdots+6u-1)$
c_{11}	$u^6(u^{102}-5u^{101}+\cdots+174048u-21952)$
c_{12}	$((u^3+u^2-1)^2)(u^{102}-3u^{101}+\cdots+8u^2-1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^2+y+1)^3)(y^{102}+64y^{101}+\cdots-2.63597\times 10^9 y+5764801)$
c_2, c_5	$((y^2+y+1)^3)(y^{102}+36y^{101}+\cdots-20973y+2401)$
c_3	$5764801(2401y^6-637y^5+22y^4-137y^3+22y^2+3y+1)$ $\cdot(2401y^{102}-2.11\times 10^5 y^{101}+\cdots-1.98\times 10^{18}y+6.52\times 10^{16})$
c_4	$5764801(2401y^6+2793y^5+2563y^4+700y^3+139y^2+14y+1)$ $\cdot(2401y^{102}+47530y^{101}+\cdots-8262494848850y+126769466209)$
c_6, c_{10}	$((y^3+3y^2+2y-1)^2)(y^{102}+43y^{101}+\cdots-16y+1)$
c_7, c_8, c_{12}	$((y^3-y^2+2y-1)^2)(y^{102}-101y^{101}+\cdots-16y+1)$
c_9	$((y^3-5y^2+10y-1)^2)(y^{102}+35y^{101}+\cdots+372y+1)$
c_{11}	$y^6(y^{102}-35y^{101}+\cdots-8.00774\times 10^9 y+4.81890\times 10^8)$