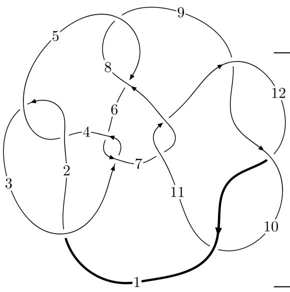
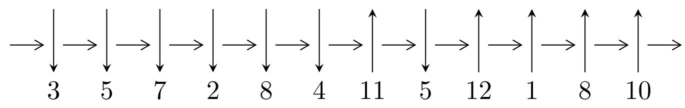
$12n_{0092}$ ($K12n_{0092}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & -2.63090\times10^{169}u^{64} - 1.19407\times10^{170}u^{63} + \cdots + 5.11342\times10^{169}b - 2.60080\times10^{170}, \\
& -1.33678\times10^{170}u^{64} - 5.86621\times10^{170}u^{63} + \cdots + 1.27836\times10^{169}a - 8.83930\times10^{170}, \\
& u^{65} + 5u^{64} + \cdots + 4u + 4\rangle \\
I_2^u = \langle & 13a^2u + 10a^2 + 22au + 61b + 31a + 11u + 46,\ a^3 + a^2u - 7au + 13a - u + 4,\ u^2 - u - 1\rangle \\
I_3^u = \langle & b,\ 5u^2 + a + 2u + 9,\ u^3 + u^2 + 2u + 1\rangle
\end{aligned}$$

$$I_1^v = \langle a,\ 3b + v - 5,\ v^2 - 7v + 1\rangle$$

* 4 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 76 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. $\boldsymbol{I_1^u = \langle -2.63\times 10^{169}u^{64} - 1.19\times 10^{170}u^{63} + \cdots + 5.11\times 10^{169}b - 2.60\times 10^{170},\ -1.34\times 10^{170}u^{64} - 5.87\times 10^{170}u^{63} + \cdots + 1.28\times 10^{169}a - 8.84\times 10^{170},\ u^{65} + 5u^{64} + \cdots + 4u + 4\rangle}$

(i) Arc colorings

$$a_7 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_8 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_4 = \begin{pmatrix}10.4570u^{64} + 45.8887u^{63} + \cdots - 20.3543u + 69.1458\\0.514509u^{64} + 2.33517u^{63} + \cdots - 12.7222u + 5.08623\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}u\\-u^3 + u\end{pmatrix}$$
$$a_3 = \begin{pmatrix}10.9715u^{64} + 48.2239u^{63} + \cdots - 33.0765u + 74.2321\\0.514509u^{64} + 2.33517u^{63} + \cdots - 12.7222u + 5.08623\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-2.56076u^{64} - 11.3025u^{63} + \cdots + 22.7562u - 15.2103\\-0.519422u^{64} - 2.45761u^{63} + \cdots + 16.9006u - 7.52354\end{pmatrix}$$
$$a_5 = \begin{pmatrix}-3.92828u^{64} - 17.5296u^{63} + \cdots + 43.8945u - 28.7392\\-0.226329u^{64} - 1.14246u^{63} + \cdots + 13.8722u - 5.08179\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-0.467988u^{64} - 1.95761u^{63} + \cdots - 13.3003u + 0.571683\\1.21392u^{64} + 5.72728u^{63} + \cdots - 42.4563u + 17.1644\end{pmatrix}$$
$$a_2 = \begin{pmatrix}11.9804u^{64} + 52.6553u^{63} + \cdots - 42.2932u + 79.5227\\-0.226329u^{64} - 1.14246u^{63} + \cdots + 13.8722u - 5.08179\end{pmatrix}$$
$$a_1 = \begin{pmatrix}-1.45833u^{64} - 6.68429u^{63} + \cdots + 28.8135u - 15.0633\\-0.990343u^{64} - 4.72668u^{63} + \cdots + 42.1137u - 15.6350\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}-0.205715u^{64} - 0.764176u^{63} + \cdots - 16.7041u + 3.00115\\1.42293u^{64} + 6.67656u^{63} + \cdots - 45.2828u + 19.1221\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -250.136u^{64} - 1099.53u^{63} + \cdots + 889.233u - 1633.12$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{65} + 35u^{64} + \cdots + 4379u + 1$
c_2, c_4	$u^{65} - 7u^{64} + \cdots - 61u - 1$
c_3, c_6	$u^{65} - 4u^{64} + \cdots - 4u - 8$
c_5, c_8	$u^{65} - 3u^{64} + \cdots + 224u - 64$
c_7, c_{11}	$u^{65} - 5u^{64} + \cdots + 4u - 4$
c_9, c_{10}, c_{12}	$u^{65} + 7u^{64} + \cdots + 88u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{65} - 3y^{64} + \cdots + 19078099y - 1$
c_2, c_4	$y^{65} - 35y^{64} + \cdots + 4379y - 1$
c_3, c_6	$y^{65} + 24y^{64} + \cdots + 7056y - 64$
c_5, c_8	$y^{65} - 47y^{64} + \cdots + 283648y - 4096$
c_7, c_{11}	$y^{65} - 21y^{64} + \cdots + 1448y - 16$
c_9, c_{10}, c_{12}	$y^{65} - 55y^{64} + \cdots + 6134y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.852107 + 0.536554I$ $a = 0.312816 - 0.088889I$ $b = -1.40349 + 0.30161I$	$1.38895 - 2.95818I$	0
$u = -0.852107 - 0.536554I$ $a = 0.312816 + 0.088889I$ $b = -1.40349 - 0.30161I$	$1.38895 + 2.95818I$	0
$u = -0.948009 + 0.367228I$ $a = 0.850963 - 0.753331I$ $b = 0.153663 + 0.857675I$	$2.10912 - 0.34030I$	0
$u = -0.948009 - 0.367228I$ $a = 0.850963 + 0.753331I$ $b = 0.153663 - 0.857675I$	$2.10912 + 0.34030I$	0
$u = -1.024770 + 0.135153I$ $a = -0.04125 + 1.56220I$ $b = -0.13124 - 1.75548I$	$9.17254 - 3.64107I$	0
$u = -1.024770 - 0.135153I$ $a = -0.04125 - 1.56220I$ $b = -0.13124 + 1.75548I$	$9.17254 + 3.64107I$	0
$u = -0.691259 + 0.784338I$ $a = -0.662548 + 0.346420I$ $b = -0.470514 - 0.941528I$	$0.56978 - 4.38703I$	0
$u = -0.691259 - 0.784338I$ $a = -0.662548 - 0.346420I$ $b = -0.470514 + 0.941528I$	$0.56978 + 4.38703I$	0
$u = 0.916883 + 0.120007I$ $a = -0.389774 + 0.653279I$ $b = -0.947907 - 0.877633I$	$3.47356 + 1.55230I$	0
$u = 0.916883 - 0.120007I$ $a = -0.389774 - 0.653279I$ $b = -0.947907 + 0.877633I$	$3.47356 - 1.55230I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.568857 + 0.725937I$ $a = 0.442387 + 0.229414I$ $b = -0.895487 - 0.532333I$	$-2.18618 - 0.21906I$	0
$u = 0.568857 - 0.725937I$ $a = 0.442387 - 0.229414I$ $b = -0.895487 + 0.532333I$	$-2.18618 + 0.21906I$	0
$u = -0.842958 + 0.701034I$ $a = -0.402908 + 1.148860I$ $b = 0.613031 - 0.666960I$	$-1.58736 + 0.20570I$	0
$u = -0.842958 - 0.701034I$ $a = -0.402908 - 1.148860I$ $b = 0.613031 + 0.666960I$	$-1.58736 - 0.20570I$	0
$u = 0.322386 + 0.842732I$ $a = -0.573249 + 1.009110I$ $b = 0.004484 + 1.102400I$	$4.65051 + 1.43055I$	0
$u = 0.322386 - 0.842732I$ $a = -0.573249 - 1.009110I$ $b = 0.004484 - 1.102400I$	$4.65051 - 1.43055I$	0
$u = 0.890471 + 0.716800I$ $a = -0.459802 - 0.793448I$ $b = -0.820727 + 1.097090I$	$4.31441 + 8.34885I$	0
$u = 0.890471 - 0.716800I$ $a = -0.459802 + 0.793448I$ $b = -0.820727 - 1.097090I$	$4.31441 - 8.34885I$	0
$u = 0.807936 + 0.810042I$ $a = 0.59554 + 1.80173I$ $b = 0.635097 - 0.948580I$	$-5.30684 + 1.54275I$	0
$u = 0.807936 - 0.810042I$ $a = 0.59554 - 1.80173I$ $b = 0.635097 + 0.948580I$	$-5.30684 - 1.54275I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.093900 + 0.380450I$ $a = 0.431231 + 0.794777I$ $b = 0.769105 - 1.004900I$	$7.57890 + 3.09040I$	0
$u = 1.093900 - 0.380450I$ $a = 0.431231 - 0.794777I$ $b = 0.769105 + 1.004900I$	$7.57890 - 3.09040I$	0
$u = -1.123750 + 0.281723I$ $a = 0.31854 + 1.48804I$ $b = -0.360396 - 0.792963I$	$1.65110 - 0.40415I$	0
$u = -1.123750 - 0.281723I$ $a = 0.31854 - 1.48804I$ $b = -0.360396 + 0.792963I$	$1.65110 + 0.40415I$	0
$u = -0.916981 + 0.724426I$ $a = 0.35528 - 1.65844I$ $b = 0.449506 + 1.288610I$	$-1.34521 - 5.69764I$	0
$u = -0.916981 - 0.724426I$ $a = 0.35528 + 1.65844I$ $b = 0.449506 - 1.288610I$	$-1.34521 + 5.69764I$	0
$u = -0.716927 + 0.933576I$ $a = 0.95858 - 1.67087I$ $b = 0.830238 + 0.572871I$	$-1.31032 + 2.58838I$	0
$u = -0.716927 - 0.933576I$ $a = 0.95858 + 1.67087I$ $b = 0.830238 - 0.572871I$	$-1.31032 - 2.58838I$	0
$u = 0.640640 + 0.505760I$ $a = 2.04088 - 0.00556I$ $b = -0.281677 - 1.140920I$	$4.03132 - 3.47720I$	$8.54192 + 0.I$
$u = 0.640640 - 0.505760I$ $a = 2.04088 + 0.00556I$ $b = -0.281677 + 1.140920I$	$4.03132 + 3.47720I$	$8.54192 + 0.I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.963394 + 0.774365I$ $a = -0.309238 - 0.466323I$ $b = 1.011710 + 0.670256I$	$-4.82760 + 4.40824I$	0
$u = 0.963394 - 0.774365I$ $a = -0.309238 + 0.466323I$ $b = 1.011710 - 0.670256I$	$-4.82760 - 4.40824I$	0
$u = -0.516521 + 1.180440I$ $a = 0.443034 - 0.252752I$ $b = -0.511934 + 1.004960I$	$2.73256 + 3.28945I$	0
$u = -0.516521 - 1.180440I$ $a = 0.443034 + 0.252752I$ $b = -0.511934 - 1.004960I$	$2.73256 - 3.28945I$	0
$u = -1.040640 + 0.792804I$ $a = -0.269379 + 0.165081I$ $b = 1.29598 - 0.58611I$	$-0.31021 - 8.92181I$	0
$u = -1.040640 - 0.792804I$ $a = -0.269379 - 0.165081I$ $b = 1.29598 + 0.58611I$	$-0.31021 + 8.92181I$	0
$u = 1.133830 + 0.655680I$ $a = -0.23216 - 1.57884I$ $b = -0.680939 + 1.100720I$	$-0.42473 + 5.58831I$	0
$u = 1.133830 - 0.655680I$ $a = -0.23216 + 1.57884I$ $b = -0.680939 - 1.100720I$	$-0.42473 - 5.58831I$	0
$u = 0.481460 + 1.304030I$ $a = -0.160877 - 0.218086I$ $b = 0.650609 + 0.709593I$	$-6.03312 - 3.48808I$	0
$u = 0.481460 - 1.304030I$ $a = -0.160877 + 0.218086I$ $b = 0.650609 - 0.709593I$	$-6.03312 + 3.48808I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.605447 + 0.034461I$ $a = 0.36569 - 3.69530I$ $b = -0.185254 + 1.354450I$	$3.85230 + 2.93050I$	$-14.9510 - 12.7631I$
$u = 0.605447 - 0.034461I$ $a = 0.36569 + 3.69530I$ $b = -0.185254 - 1.354450I$	$3.85230 - 2.93050I$	$-14.9510 + 12.7631I$
$u = -0.596504$ $a = 11.6408$ $b = 0.144153$	-0.561787	-200.700
$u = -1.20386 + 0.80436I$ $a = -0.39858 + 1.41760I$ $b = -0.72823 - 1.36563I$	$4.86618 - 10.28160I$	0
$u = -1.20386 - 0.80436I$ $a = -0.39858 - 1.41760I$ $b = -0.72823 + 1.36563I$	$4.86618 + 10.28160I$	0
$u = -0.551957$ $a = 1.56151$ $b = -0.122994$	1.12640	9.50900
$u = -0.35331 + 1.40989I$ $a = -0.0507171 + 0.0998246I$ $b = 0.265762 - 0.457711I$	$-4.60256 - 2.48429I$	0
$u = -0.35331 - 1.40989I$ $a = -0.0507171 - 0.0998246I$ $b = 0.265762 + 0.457711I$	$-4.60256 + 2.48429I$	0
$u = -0.515646 + 0.173541I$ $a = -2.52072 + 0.01596I$ $b = -0.510707 + 0.338412I$	$-1.000760 - 0.692383I$	$-6.73751 - 0.40613I$
$u = -0.515646 - 0.173541I$ $a = -2.52072 - 0.01596I$ $b = -0.510707 - 0.338412I$	$-1.000760 + 0.692383I$	$-6.73751 + 0.40613I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.30779 + 0.82249I$ $a = 0.312309 + 1.360860I$ $b = 0.780596 - 1.112270I$	$-3.39471 + 10.94230I$	0
$u = 1.30779 - 0.82249I$ $a = 0.312309 - 1.360860I$ $b = 0.780596 + 1.112270I$	$-3.39471 - 10.94230I$	0
$u = -1.42808 + 0.65324I$ $a = 0.120606 - 1.218490I$ $b = 0.608224 + 0.971552I$	$-0.66498 - 4.63908I$	0
$u = -1.42808 - 0.65324I$ $a = 0.120606 + 1.218490I$ $b = 0.608224 - 0.971552I$	$-0.66498 + 4.63908I$	0
$u = -1.26142 + 0.95426I$ $a = 0.49685 - 1.33557I$ $b = 0.84089 + 1.26809I$	$1.9343 - 16.4466I$	0
$u = -1.26142 - 0.95426I$ $a = 0.49685 + 1.33557I$ $b = 0.84089 - 1.26809I$	$1.9343 + 16.4466I$	0
$u = -0.76428 + 1.39601I$ $a = -0.194634 + 0.365377I$ $b = 0.676063 - 1.067470I$	$0.19526 + 8.22606I$	0
$u = -0.76428 - 1.39601I$ $a = -0.194634 - 0.365377I$ $b = 0.676063 + 1.067470I$	$0.19526 - 8.22606I$	0
$u = 1.63520$ $a = 1.82265$ $b = 0.534695$	7.71518	0
$u = -0.284609$ $a = -0.440890$ $b = 1.67721$	−7.15457	47.4220

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.027450+0.277565I$ $a=-14.7216+8.1087I$ $b=-0.617886+0.064219I$	$0.646116-0.109642I$	$-45.2047+8.8218I$
$u=-0.027450-0.277565I$ $a=-14.7216-8.1087I$ $b=-0.617886-0.064219I$	$0.646116+0.109642I$	$-45.2047-8.8218I$
$u=\ 1.83739+0.12757I$ $a=\ 0.128738+1.010030I$ $b=\ 0.151006-1.055190I$	$11.02040+2.29381I$	0
$u=\ 1.83739-0.12757I$ $a=\ 0.128738-1.010030I$ $b=\ 0.151006+1.055190I$	$11.02040-2.29381I$	0
$u=\ 0.113052$ $a=\ 3.84398$ $b=-0.612202$	-1.00335	-10.2290

II.

$$\boldsymbol{I_2^u = \langle 13a^2u + 22au + \cdots + 31a + 46,\ a^3 + a^2u - 7au + 13a - u + 4,\ u^2 - u - 1\rangle}$$

(i) Arc colorings

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

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

$$a_8 = \begin{pmatrix} 1 \\ -u - 1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} a \\ -0.213115a^2u - 0.360656au + \cdots - 0.508197a - 0.754098 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} u \\ -u - 1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.213115a^2u - 0.360656au + \cdots + 0.491803a - 0.754098 \\ -0.213115a^2u - 0.360656au + \cdots - 0.508197a - 0.754098 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.0163934a^2u + 0.0491803au + \cdots + 0.114754a + 0.557377 \\ -0.262295a^2u - 0.213115au + \cdots - 0.163934a - 0.0819672 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.0163934a^2u + 0.0491803au + \cdots + 0.114754a + 0.557377 \\ -0.262295a^2u - 0.213115au + \cdots - 0.163934a - 0.0819672 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} -0.278689a^2u - 0.163934au + \cdots - 0.0491803a - 1.52459 \\ -0.262295a^2u - 0.213115au + \cdots - 0.163934a - 0.0819672 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u \\ u \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{476}{61}a^2u + \frac{216}{61}a^2 + \frac{158}{61}au + \frac{23}{61}a + \frac{872}{61}u + \frac{591}{61}$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_6	$(y^3 + 3y^2 + 2y - 1)^2$
c_2, c_4	$(y^3 - y^2 + 2y - 1)^2$
c_5, c_8	y^6
c_7, c_9, c_{10} c_{11}, c_{12}	$(y^2 - 3y + 1)^3$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.618034$ $a=-0.263016$ $b=-0.569840$	-0.126494	1.08690
$u=-0.618034$ $a=\ \ 0.44053+4.16700I$ $b=-0.215080-1.307140I$	$4.01109-2.82812I$	$22.3213-9.8050I$
$u=-0.618034$ $a=\ \ 0.44053-4.16700I$ $b=-0.215080+1.307140I$	$4.01109+2.82812I$	$22.3213+9.8050I$
$u=\ \ 1.61803$ $a=-0.040408+1.244150I$ $b=-0.215080-1.307140I$	$11.90680-2.82812I$	$7.63548+4.05775I$
$u=\ \ 1.61803$ $a=-0.040408-1.244150I$ $b=-0.215080+1.307140I$	$11.90680+2.82812I$	$7.63548-4.05775I$
$u=\ \ 1.61803$ $a=-1.53722$ $b=-0.569840$	7.76919	64.0000

III. $I_3^u = \langle b,\ 5u^2 + a + 2u + 9,\ u^3 + u^2 + 2u + 1 \rangle$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -5u^2 - 2u - 9 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u \\ u^2 + 3u + 1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -5u^2 - 2u - 9 \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^2 + 1 \\ u^2 - u - 1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u + 2 \\ -2u^2 + 3u + 2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -6u^2 - 2u - 10 \\ -u^2 + u + 1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^2 - 1 \\ -u^2 + u + 1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ -2u^2 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 53u^2 + 32u + 92$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2	$(u-1)^3$
c_3, c_6	u^3
c_4	$(u+1)^3$
c_5	$u^3 - 3u^2 + 2u + 1$
c_7	$u^3 + u^2 + 2u + 1$
c_8	$u^3 + 3u^2 + 2u - 1$
c_9, c_{10}	$u^3 - u^2 + 1$
c_{11}	$u^3 - u^2 + 2u - 1$
c_{12}	$u^3 + u^2 - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4	$(y-1)^3$
c_3, c_6	y^3
c_5, c_8	$y^3 - 5y^2 + 10y - 1$
c_7, c_{11}	$y^3 + 3y^2 + 2y - 1$
c_9, c_{10}, c_{12}	$y^3 - y^2 + 2y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.215080+1.307140I$ $a=-0.258045+0.197115I$ $b=0$	$-4.66906-2.82812I$	$-2.98758+12.02771I$
$u=-0.215080-1.307140I$ $a=-0.258045-0.197115I$ $b=0$	$-4.66906+2.82812I$	$-2.98758-12.02771I$
$u=-0.569840$ $a=-9.48391$ $b=0$	-0.531480	90.9750

IV. $I_1^v = \langle a,\ 3b + v - 5,\ v^2 - 7v + 1\rangle$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} v \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 0 \\ -\frac{1}{3}v + \frac{5}{3} \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} v \\ 0 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -\frac{1}{3}v + \frac{5}{3} \\ -\frac{1}{3}v + \frac{5}{3} \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ \frac{1}{3}v - \frac{8}{3} \end{pmatrix}$$
$$a_5 = \begin{pmatrix} \frac{1}{3}v - \frac{5}{3} \\ \frac{1}{3}v - \frac{8}{3} \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -\frac{2}{3}v + \frac{16}{3} \\ -v + 7 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -1 \\ \frac{1}{3}v - \frac{8}{3} \end{pmatrix}$$
$$a_1 = \begin{pmatrix} \frac{2}{3}v - \frac{16}{3} \\ v - 7 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} \frac{1}{3}v + \frac{16}{3} \\ -v + 7 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -49$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^2 - 3u + 1$
c_2, c_3	$u^2 + u - 1$
c_4, c_6	$u^2 - u - 1$
c_7, c_{11}	u^2
c_8	$u^2 + 3u + 1$
c_9, c_{10}	$(u + 1)^2$
c_{12}	$(u - 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5, c_8	$y^2 - 7y + 1$
c_2, c_3, c_4 c_6	$y^2 - 3y + 1$
c_7, c_{11}	y^2
c_9, c_{10}, c_{12}	$(y-1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$v = 0.145898$ $a = 0$ $b = 1.61803$	-7.23771	-49.0000
$v = 6.85410$ $a = 0$ $b = -0.618034$	0.657974	-49.0000

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u-1)^3(u^2-3u+1)(u^3-u^2+2u-1)^2$ $\cdot\,(u^{65}+35u^{64}+\cdots+4379u+1)$
c_2	$((u-1)^3)(u^2+u-1)(u^3+u^2-1)^2(u^{65}-7u^{64}+\cdots-61u-1)$
c_3	$u^3(u^2+u-1)(u^3-u^2+2u-1)^2(u^{65}-4u^{64}+\cdots-4u-8)$
c_4	$((u+1)^3)(u^2-u-1)(u^3-u^2+1)^2(u^{65}-7u^{64}+\cdots-61u-1)$
c_5	$u^6(u^2-3u+1)(u^3-3u^2+2u+1)(u^{65}-3u^{64}+\cdots+224u-64)$
c_6	$u^3(u^2-u-1)(u^3+u^2+2u+1)^2(u^{65}-4u^{64}+\cdots-4u-8)$
c_7	$u^2(u^2-u-1)^3(u^3+u^2+2u+1)(u^{65}-5u^{64}+\cdots+4u-4)$
c_8	$u^6(u^2+3u+1)(u^3+3u^2+2u-1)(u^{65}-3u^{64}+\cdots+224u-64)$
c_9, c_{10}	$((u+1)^2)(u^2-u-1)^3(u^3-u^2+1)(u^{65}+7u^{64}+\cdots+88u-1)$
c_{11}	$u^2(u^2+u-1)^3(u^3-u^2+2u-1)(u^{65}-5u^{64}+\cdots+4u-4)$
c_{12}	$((u-1)^2)(u^2+u-1)^3(u^3+u^2-1)(u^{65}+7u^{64}+\cdots+88u-1)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y-1)^3(y^2-7y+1)(y^3+3y^2+2y-1)^2$ $\cdot\,(y^{65}-3y^{64}+\cdots+19078099y-1)$
c_2, c_4	$(y-1)^3(y^2-3y+1)(y^3-y^2+2y-1)^2$ $\cdot\,(y^{65}-35y^{64}+\cdots+4379y-1)$
c_3, c_6	$y^3(y^2-3y+1)(y^3+3y^2+2y-1)^2(y^{65}+24y^{64}+\cdots+7056y-64)$
c_5, c_8	$y^6(y^2-7y+1)(y^3-5y^2+10y-1)$ $\cdot\,(y^{65}-47y^{64}+\cdots+283648y-4096)$
c_7, c_{11}	$y^2(y^2-3y+1)^3(y^3+3y^2+2y-1)(y^{65}-21y^{64}+\cdots+1448y-16)$
c_9, c_{10}, c_{12}	$(y-1)^2(y^2-3y+1)^3(y^3-y^2+2y-1)$ $\cdot\,(y^{65}-55y^{64}+\cdots+6134y-1)$