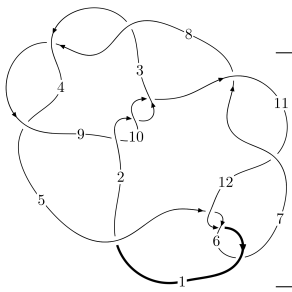
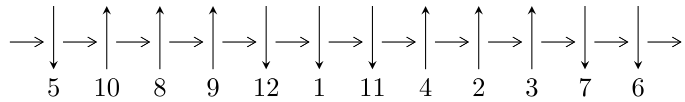
$12a_{1285}$ ($K12a_{1285}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$
\begin{aligned}
I_1^u &= \langle -u^{23} + 2u^{22} + \cdots + b - 1,\ -7u^{23} + 13u^{22} + \cdots + 2a - 12,\ u^{24} - 3u^{23} + \cdots - 6u - 2 \rangle \\
I_2^u &= \langle -10u^{13}a + 21u^{13} + \cdots - 17a + 30,\ -2u^{13}a + 2u^{13} + \cdots - 2a + 2, \\
&\quad u^{14} + u^{13} - 5u^{12} - 4u^{11} + 10u^{10} + 5u^9 - 7u^8 + 2u^7 - 4u^6 - 8u^5 + 8u^4 + 2u^3 - 2u^2 + 3u - 1 \rangle \\
I_3^u &= \langle b + 1,\ 2u^3 - 3u^2 + 3a - 3u + 3,\ u^4 - 3u^2 + 3 \rangle \\
I_4^u &= \langle b - 1,\ -u^2 + a + u + 1,\ u^4 - u^2 - 1 \rangle
\end{aligned}
$$

$$
I_1^v = \langle a,\ b + 1,\ v + 1 \rangle
$$

* 5 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 61 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. $\boldsymbol{I_1^u =}$
$\boldsymbol{\langle -u^{23}+2u^{22}+\cdots+b-1,\ -7u^{23}+13u^{22}+\cdots+2a-12,\ u^{24}-3u^{23}+\cdots-6u-2\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_6 = \begin{pmatrix}1\\u^2\end{pmatrix}$$
$$a_1 = \begin{pmatrix}-u\\-u^3+u\end{pmatrix}$$
$$a_2 = \begin{pmatrix}u^3-2u\\-u^3+u\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-u^2+1\\-u^4+2u^2\end{pmatrix}$$
$$a_9 = \begin{pmatrix}\frac{7}{2}u^{23}-\frac{13}{2}u^{22}+\cdots+\frac{37}{2}u+6\\u^{23}-2u^{22}+\cdots+5u+1\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}\frac{5}{2}u^{23}-\frac{9}{2}u^{22}+\cdots+\frac{25}{2}u+4\\u^{23}-2u^{22}+\cdots+4u+1\end{pmatrix}$$
$$a_4 = \begin{pmatrix}-\frac{1}{2}u^{23}+\frac{1}{2}u^{22}+\cdots-\frac{17}{2}u^2-\frac{7}{2}u\\u^{23}-u^{22}+\cdots+4u+1\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-u^8+3u^6-3u^4+1\\-u^{10}+4u^8-5u^6+3u^2\end{pmatrix}$$
$$a_3 = \begin{pmatrix}-\frac{1}{2}u^{23}+\frac{1}{2}u^{22}+\cdots-\frac{13}{2}u-1\\2u^{23}-3u^{22}+\cdots+12u+3\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}u^5-2u^3+u\\u^7-3u^5+2u^3+u\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= 2u^{21}-16u^{19}-6u^{18}+54u^{17}+42u^{16}-82u^{15}-120u^{14}+4u^{13}+148u^{12}+172u^{11}+4u^{10}-204u^9-204u^8-20u^7+146u^6+168u^5+66u^4-40u^3-76u^2-56u-12$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7, c_{11}	$u^{24} + 9u^{23} + \cdots - 194u - 22$
c_2, c_3, c_4 c_8, c_9, c_{10}	$u^{24} + u^{23} + \cdots - u + 1$
c_5, c_6, c_{12}	$u^{24} - 3u^{23} + \cdots - 6u - 2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7, c_{11}	$y^{24} + 25y^{23} + \cdots + 1744y + 484$
c_2, c_3, c_4 c_8, c_9, c_{10}	$y^{24} - 33y^{23} + \cdots - 3y + 1$
c_5, c_6, c_{12}	$y^{24} - 19y^{23} + \cdots + 32y + 4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.067210 + 0.918173I$ $a = \ \ 2.61385 - 0.53592I$ $b = -1.64955 - 0.33368I$	$-18.9666 + 8.2466I$	$9.52974 - 3.63812I$
$u = -0.067210 - 0.918173I$ $a = \ \ 2.61385 + 0.53592I$ $b = -1.64955 + 0.33368I$	$-18.9666 - 8.2466I$	$9.52974 + 3.63812I$
$u = -0.810234 + 0.401414I$ $a = \ \ 0.839601 - 0.631574I$ $b = -1.60712 + 0.05636I$	$10.53670 - 0.39581I$	$6.64151 - 1.21019I$
$u = -0.810234 - 0.401414I$ $a = \ \ 0.839601 + 0.631574I$ $b = -1.60712 - 0.05636I$	$10.53670 + 0.39581I$	$6.64151 + 1.21019I$
$u = -0.005460 + 0.831838I$ $a = -1.165050 - 0.241677I$ $b = \ \ 0.554556 + 0.402781I$	$5.61187 + 1.45036I$	$4.65438 - 4.77575I$
$u = -0.005460 - 0.831838I$ $a = -1.165050 + 0.241677I$ $b = \ \ 0.554556 - 0.402781I$	$5.61187 - 1.45036I$	$4.65438 + 4.77575I$
$u = -1.21253$ $a = -0.256764$ $b = \ \ 0.409349$	-2.69200	-0.296190
$u = -0.310605 + 0.687272I$ $a = -1.79744 + 1.27189I$ $b = \ \ 1.58804 + 0.14110I$	$12.05890 + 4.45584I$	$8.65503 - 4.30738I$
$u = -0.310605 - 0.687272I$ $a = -1.79744 - 1.27189I$ $b = \ \ 1.58804 - 0.14110I$	$12.05890 - 4.45584I$	$8.65503 + 4.30738I$
$u = \ \ 1.267450 + 0.119306I$ $a = -0.465945 - 0.973738I$ $b = \ \ 0.187464 - 0.543825I$	$-4.27340 - 2.36049I$	$-6.43774 + 5.77001I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.267450 - 0.119306I$ $a = -0.465945 + 0.973738I$ $b = 0.187464 + 0.543825I$	$-4.27340 + 2.36049I$	$-6.43774 - 5.77001I$
$u = -1.227700 + 0.469098I$ $a = -1.142420 + 0.522004I$ $b = 1.66590 - 0.30646I$	$16.9366 - 3.3077I$	$6.61436 + 0.33127I$
$u = -1.227700 - 0.469098I$ $a = -1.142420 - 0.522004I$ $b = 1.66590 + 0.30646I$	$16.9366 + 3.3077I$	$6.61436 - 0.33127I$
$u = -1.264550 + 0.372340I$ $a = 0.346462 - 0.320746I$ $b = -0.563190 + 0.341593I$	$1.70636 + 2.87549I$	$0.74677 + 1.38068I$
$u = -1.264550 - 0.372340I$ $a = 0.346462 + 0.320746I$ $b = -0.563190 - 0.341593I$	$1.70636 - 2.87549I$	$0.74677 - 1.38068I$
$u = 1.274190 + 0.379172I$ $a = 0.955758 + 0.604843I$ $b = -0.541567 + 0.462644I$	$1.63700 - 5.80273I$	$0.52316 + 7.89295I$
$u = 1.274190 - 0.379172I$ $a = 0.955758 - 0.604843I$ $b = -0.541567 - 0.462644I$	$1.63700 + 5.80273I$	$0.52316 - 7.89295I$
$u = 1.378330 + 0.236400I$ $a = -0.10842 + 1.66407I$ $b = -1.52672 + 0.17912I$	$6.69086 - 7.69527I$	$3.83110 + 5.36935I$
$u = 1.378330 - 0.236400I$ $a = -0.10842 - 1.66407I$ $b = -1.52672 - 0.17912I$	$6.69086 + 7.69527I$	$3.83110 - 5.36935I$
$u = 1.333410 + 0.425756I$ $a = -1.31381 - 1.82736I$ $b = 1.62816 - 0.35030I$	$16.1301 - 13.0526I$	$5.84267 + 6.20915I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.333410 - 0.425756I$ $a = -1.31381 + 1.82736I$ $b = 1.62816 + 0.35030I$	$16.1301 + 13.0526I$	$5.84267 - 6.20915I$
$u = 1.40803$ $a = 1.10728$ $b = 1.49513$	3.58125	2.27540
$u = -0.165371 + 0.320976I$ $a = 0.812144 - 0.253890I$ $b = -0.188218 - 0.317776I$	$0.012470 + 0.742718I$	$0.40941 - 9.38538I$
$u = -0.165371 - 0.320976I$ $a = 0.812144 + 0.253890I$ $b = -0.188218 + 0.317776I$	$0.012470 - 0.742718I$	$0.40941 + 9.38538I$

II. $I_2^u = \langle -10u^{13}a + 21u^{13} + \cdots - 17a + 30,\ -2u^{13}a + 2u^{13} + \cdots - 2a + 2,\ u^{14} + u^{13} + \cdots + 3u - 1\rangle$

(i) Arc colorings

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

$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

$$a_2 = \begin{pmatrix} u^3 - 2u \\ -u^3 + u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} a \\ 0.526316au^{13} - 1.10526u^{13} + \cdots + 0.894737a - 1.57895 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.526316au^{13} - 0.105263u^{13} + \cdots + 1.89474a - 0.578947 \\ 0.368421au^{13} - 1.47368u^{13} + \cdots + 0.526316a - 1.10526 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.105263au^{13} - 0.421053u^{13} + \cdots + 1.57895a + 0.684211 \\ -0.631579au^{13} + 0.526316u^{13} + \cdots - 0.473684a + 1.89474 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u^8 + 3u^6 - 3u^4 + 1 \\ -u^{10} + 4u^8 - 5u^6 + 3u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.736842au^{13} - 0.947368u^{13} + \cdots + 2.05263a - 1.21053 \\ 0.210526au^{13} + 0.157895u^{13} + \cdots + 0.157895a + 1.36842 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^5 - 2u^3 + u \\ u^7 - 3u^5 + 2u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= -4u^{12} + 20u^{10} - 4u^9 - 36u^8 + 16u^7 + 12u^6 - 20u^5 + 36u^4 - 4u^3 - 28u^2 + 20u - 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7, c_{11}	$(u^{14} - 3u^{13} + \cdots - 5u + 1)^2$
c_2, c_3, c_4 c_8, c_9, c_{10}	$u^{28} + u^{27} + \cdots - 38u + 7$
c_5, c_6, c_{12}	$(u^{14} + u^{13} + \cdots + 3u - 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7, c_{11}	$(y^{14} + 17y^{13} + \cdots - y + 1)^2$
c_2, c_3, c_4 c_8, c_9, c_{10}	$y^{28} - 25y^{27} + \cdots - 3040y + 49$
c_5, c_6, c_{12}	$(y^{14} - 11y^{13} + \cdots - 5y + 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.021800 + 0.901952I$ $a = -1.047000 + 0.562730I$ $b = 0.653487 - 0.990965I$	$12.94110 - 3.26499I$	$8.09314 + 2.49004I$
$u = 0.021800 + 0.901952I$ $a = 3.03667 + 0.27891I$ $b = -1.57846 + 0.10746I$	$12.94110 - 3.26499I$	$8.09314 + 2.49004I$
$u = 0.021800 - 0.901952I$ $a = -1.047000 - 0.562730I$ $b = 0.653487 + 0.990965I$	$12.94110 + 3.26499I$	$8.09314 - 2.49004I$
$u = 0.021800 - 0.901952I$ $a = 3.03667 - 0.27891I$ $b = -1.57846 - 0.10746I$	$12.94110 + 3.26499I$	$8.09314 - 2.49004I$
$u = 1.126450 + 0.176078I$ $a = 0.285171 + 0.774418I$ $b = 0.882087 + 0.470065I$	$1.87700 - 0.85224I$	$4.40198 + 0.38712I$
$u = 1.126450 + 0.176078I$ $a = 1.55549 + 1.18730I$ $b = -1.287820 + 0.132216I$	$1.87700 - 0.85224I$	$4.40198 + 0.38712I$
$u = 1.126450 - 0.176078I$ $a = 0.285171 - 0.774418I$ $b = 0.882087 - 0.470065I$	$1.87700 + 0.85224I$	$4.40198 - 0.38712I$
$u = 1.126450 - 0.176078I$ $a = 1.55549 - 1.18730I$ $b = -1.287820 - 0.132216I$	$1.87700 + 0.85224I$	$4.40198 - 0.38712I$
$u = -1.28972$ $a = 0.697582$ $b = 1.06109$	-2.27008	-4.70520
$u = -1.28972$ $a = -1.30932$ $b = -0.136131$	-2.27008	-4.70520

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.279790 + 0.223785I$ $a = 0.007778 + 1.298290I$ $b = 0.368198 + 0.626753I$	$0.31026 + 4.88256I$	$0.31401 - 6.44337I$
$u = -1.279790 + 0.223785I$ $a = 0.57163 - 1.69896I$ $b = -1.287520 - 0.156522I$	$0.31026 + 4.88256I$	$0.31401 - 6.44337I$
$u = -1.279790 - 0.223785I$ $a = 0.007778 - 1.298290I$ $b = 0.368198 - 0.626753I$	$0.31026 - 4.88256I$	$0.31401 + 6.44337I$
$u = -1.279790 - 0.223785I$ $a = 0.57163 + 1.69896I$ $b = -1.287520 + 0.156522I$	$0.31026 - 4.88256I$	$0.31401 + 6.44337I$
$u = 1.264560 + 0.437504I$ $a = -0.212178 + 0.241475I$ $b = -0.697903 - 0.968584I$	$9.09089 - 1.51934I$	$4.87778 + 0.64840I$
$u = 1.264560 + 0.437504I$ $a = -1.68041 - 0.87564I$ $b = 1.57724 + 0.07154I$	$9.09089 - 1.51934I$	$4.87778 + 0.64840I$
$u = 1.264560 - 0.437504I$ $a = -0.212178 - 0.241475I$ $b = -0.697903 + 0.968584I$	$9.09089 + 1.51934I$	$4.87778 - 0.64840I$
$u = 1.264560 - 0.437504I$ $a = -1.68041 + 0.87564I$ $b = 1.57724 - 0.07154I$	$9.09089 + 1.51934I$	$4.87778 - 0.64840I$
$u = -1.299190 + 0.426336I$ $a = 1.125940 - 0.741448I$ $b = -0.608008 - 1.000040I$	$8.82756 + 8.01486I$	$4.36796 - 5.37427I$
$u = -1.299190 + 0.426336I$ $a = -1.69482 + 1.50999I$ $b = 1.56993 + 0.13979I$	$8.82756 + 8.01486I$	$4.36796 - 5.37427I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.299190-0.426336I$ $a=\ \ 1.125940+0.741448I$ $b=-0.608008+1.000040I$	$8.82756-8.01486I$	$4.36796+5.37427I$
$u=-1.299190-0.426336I$ $a=-1.69482-1.50999I$ $b=\ \ 1.56993-0.13979I$	$8.82756-8.01486I$	$4.36796+5.37427I$
$u=\ \ 0.129663+0.583715I$ $a=\ \ 0.574640+0.645353I$ $b=-0.582162+0.557704I$	$4.64212-1.98638I$	$7.34408+5.08636I$
$u=\ \ 0.129663+0.583715I$ $a=-2.71168-0.96145I$ $b=\ \ 1.309070-0.039650I$	$4.64212-1.98638I$	$7.34408+5.08636I$
$u=\ \ 0.129663-0.583715I$ $a=\ \ 0.574640-0.645353I$ $b=-0.582162-0.557704I$	$4.64212+1.98638I$	$7.34408-5.08636I$
$u=\ \ 0.129663-0.583715I$ $a=-2.71168+0.96145I$ $b=\ \ 1.309070+0.039650I$	$4.64212+1.98638I$	$7.34408-5.08636I$
$u=\ \ 0.362713$ $a=\ \ 0.600452$ $b=-1.15455$	2.55923	-2.09270
$u=\ \ 0.362713$ $a=\ \ 2.38882$ $b=\ \ 0.593309$	2.55923	-2.09270

III. $\boldsymbol{I_3^u = \langle b+1,\ 2u^3-3u^2+3a-3u+3,\ u^4-3u^2+3\rangle}$

(i) Arc colorings

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

$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

$$a_2 = \begin{pmatrix} u^3-2u \\ -u^3+u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -u^2+1 \\ -u^2+3 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -\frac{2}{3}u^3+u^2+u-1 \\ -1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} \frac{1}{3}u^3+u^2-u-1 \\ -u^3+u-1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} \frac{2}{3}u^3-u^2-u+2 \\ 1 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} \frac{2}{3}u^3-u^2-u+1 \\ 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^3-2u \\ -u^3+u \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 4u^2$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7, c_{11}	$(y^2+3y+3)^2$
c_2, c_3, c_4 c_8, c_9, c_{10}	$(y-1)^4$
c_5, c_6, c_{12}	$(y^2-3y+3)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.271230 + 0.340625I$ $a = 0.696660 + 0.132080I$ $b = -1.00000$	$3.28987 - 4.05977I$	$6.00000 + 3.46410I$
$u = 1.271230 - 0.340625I$ $a = 0.696660 - 0.132080I$ $b = -1.00000$	$3.28987 + 4.05977I$	$6.00000 - 3.46410I$
$u = -1.271230 + 0.340625I$ $a = 0.30334 - 1.59997I$ $b = -1.00000$	$3.28987 + 4.05977I$	$6.00000 - 3.46410I$
$u = -1.271230 - 0.340625I$ $a = 0.30334 + 1.59997I$ $b = -1.00000$	$3.28987 - 4.05977I$	$6.00000 + 3.46410I$

IV. $I_4^u = \langle b-1,\ -u^2+a+u+1,\ u^4-u^2-1 \rangle$

(i) Arc colorings

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

$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

$$a_2 = \begin{pmatrix} u^3-2u \\ -u^3+u \end{pmatrix}$$

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

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

$$a_{10} = \begin{pmatrix} -u^3+u^2+u-1 \\ u^3-u+1 \end{pmatrix}$$

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

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

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

$$a_{11} = \begin{pmatrix} -u^3+2u \\ u^3-u \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4u^2+8$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7, c_{11}	$u^4 + u^2 - 1$
c_2, c_8	$(u+1)^4$
c_3, c_4, c_9 c_{10}	$(u-1)^4$
c_5, c_6, c_{12}	$u^4 - u^2 - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7, c_{11}	$(y^2+y-1)^2$
c_2, c_3, c_4 c_8, c_9, c_{10}	$(y-1)^4$
c_5, c_6, c_{12}	$(y^2-y-1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.786151I$ $a = -1.61803 - 0.78615I$ $b = 1.00000$	7.23771	10.4720
$u = -0.786151I$ $a = -1.61803 + 0.78615I$ $b = 1.00000$	7.23771	10.4720
$u = 1.27202$ $a = -0.653986$ $b = 1.00000$	−0.657974	1.52790
$u = -1.27202$ $a = 1.89005$ $b = 1.00000$	−0.657974	1.52790

V. $I_1^v = \langle a,\ b+1,\ v+1 \rangle$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -1 \\ -1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 12$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5, c_6 c_7, c_{11}, c_{12}	y
c_2, c_3, c_4 c_8, c_9, c_{10}	$y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$v = -1.00000$ $a = \quad 0$ $b = -1.00000$	3.28987	12.0000

VI. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_7, c_{11}	$u(u^4+u^2-1)(u^4+3u^2+3)(u^{14}-3u^{13}+\cdots-5u+1)^2$ $\cdot(u^{24}+9u^{23}+\cdots-194u-22)$
c_2, c_8	$((u-1)^5)(u+1)^4(u^{24}+u^{23}+\cdots-u+1)(u^{28}+u^{27}+\cdots-38u+7)$
c_3, c_4, c_9 c_{10}	$((u-1)^4)(u+1)^5(u^{24}+u^{23}+\cdots-u+1)(u^{28}+u^{27}+\cdots-38u+7)$
c_5, c_6, c_{12}	$u(u^4-3u^2+3)(u^4-u^2-1)(u^{14}+u^{13}+\cdots+3u-1)^2$ $\cdot(u^{24}-3u^{23}+\cdots-6u-2)$

VII. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7, c_{11}	$y(y^2+y-1)^2(y^2+3y+3)^2(y^{14}+17y^{13}+\cdots-y+1)^2$ $\cdot(y^{24}+25y^{23}+\cdots+1744y+484)$
c_2, c_3, c_4 c_8, c_9, c_{10}	$((y-1)^9)(y^{24}-33y^{23}+\cdots-3y+1)(y^{28}-25y^{27}+\cdots-3040y+49)$
c_5, c_6, c_{12}	$y(y^2-3y+3)^2(y^2-y-1)^2(y^{14}-11y^{13}+\cdots-5y+1)^2$ $\cdot(y^{24}-19y^{23}+\cdots+32y+4)$