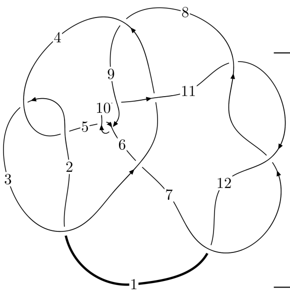
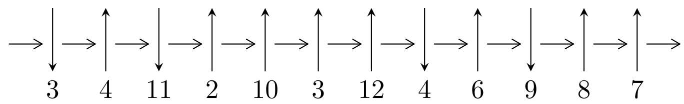
$12n_{0145}$ ($K12n_{0145}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$
\begin{aligned}
I_1^u = \langle & -1.89198\times 10^{43}u^{23} + 1.93706\times 10^{43}u^{22} + \cdots + 7.16795\times 10^{45}b + 5.20518\times 10^{46},\\
& -8.64361\times 10^{44}u^{23} - 3.86826\times 10^{43}u^{22} + \cdots + 2.95871\times 10^{48}a + 6.38636\times 10^{47},\\
& u^{24} - 2u^{23} + \cdots - 4461u + 2683\rangle\\
I_2^u = \langle & u^3 - 3u^2 + 2b + 3u - 1,\ -u^3 + 4u^2 + 6a - u - 6,\ u^4 - 4u^3 + 4u^2 + 3\rangle\\
I_3^u = \langle & b,\ a^2 + a + 1,\ u + 1\rangle\\
I_4^u = \langle & -u^3 - 3u^2 + b - 3u + 4,\ -3u^3 - 8u^2 + 3a - 8u + 12,\ u^4 + 2u^3 + u^2 - 6u + 3\rangle\\
I_5^u = \langle & b,\ a - 1,\ u^2 - u + 1\rangle
\end{aligned}
$$

* 5 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 36 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. $\boldsymbol{I_1^u = \langle -1.89 \times 10^{43} u^{23} + 1.94 \times 10^{43} u^{22} + \cdots + 7.17 \times 10^{45} b + 5.21 \times 10^{46},\ -8.64 \times 10^{44} u^{23} - 3.87 \times 10^{43} u^{22} + \cdots + 2.96 \times 10^{48} a + 6.39 \times 10^{47},\ u^{24} - 2u^{23} + \cdots - 4461u + 2683 \rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

$$a_{11} = \begin{pmatrix} 0.000292141u^{23} + 0.0000130742u^{22} + \cdots + 0.720325u - 0.215850 \\ 0.00263951u^{23} - 0.00270240u^{22} + \cdots + 4.46888u - 7.26175 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.00293165u^{23} - 0.00268932u^{22} + \cdots + 5.18921u - 7.47760 \\ 0.00263951u^{23} - 0.00270240u^{22} + \cdots + 4.46888u - 7.26175 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.00111111u^{23} - 0.00111164u^{22} + \cdots + 2.33618u - 2.85740 \\ 0.00144537u^{23} - 0.00161867u^{22} + \cdots + 2.86920u - 4.75166 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.00111111u^{23} - 0.00111164u^{22} + \cdots + 2.33618u - 2.85740 \\ 0.00274132u^{23} - 0.00268026u^{22} + \cdots + 4.84242u - 7.73137 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.00192313u^{23} - 0.00205057u^{22} + \cdots + 3.04993u - 5.46309 \\ 0.00295092u^{23} - 0.00292037u^{22} + \cdots + 5.36339u - 8.37266 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.00361033u^{23} - 0.00409191u^{22} + \cdots + 6.99968u - 10.2748 \\ 0.00380171u^{23} - 0.00433836u^{22} + \cdots + 6.92476u - 11.2245 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.00177479u^{23} + 0.00171084u^{22} + \cdots - 3.65352u + 4.54167 \\ -0.00354581u^{23} + 0.00380753u^{22} + \cdots - 6.59708u + 9.57302 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.000894363u^{23} - 0.000991958u^{22} + \cdots + 0.953738u - 2.60877 \\ -0.00266810u^{23} + 0.00288557u^{22} + \cdots - 5.10145u + 7.77036 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.00191635u^{23} - 0.00193496u^{22} + \cdots + 3.30821u - 5.87489 \\ 0.00372145u^{23} - 0.00402551u^{22} + \cdots + 5.91212u - 10.7507 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.00451241u^{23} - 0.00553102u^{22} + \cdots + 5.54839u - 13.6361$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{24}+43u^{23}+\cdots+1172u+81$
c_2, c_4	$u^{24}-3u^{23}+\cdots-68u+9$
c_3	$u^{24}+3u^{23}+\cdots-4u+3$
c_5, c_9	$u^{24}-3u^{23}+\cdots+10u+3$
c_6	$u^{24}+2u^{23}+\cdots+20857u+9299$
c_7, c_{11}, c_{12}	$u^{24}+u^{23}+\cdots-32u+16$
c_8	$u^{24}-2u^{23}+\cdots-4461u+2683$
c_{10}	$u^{24}+19u^{23}+\cdots+68u+9$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{24} - 117y^{23} + \cdots - 1128316y + 6561$
c_2, c_4	$y^{24} + 43y^{23} + \cdots + 1172y + 81$
c_3	$y^{24} + 3y^{23} + \cdots + 68y + 9$
c_5, c_9	$y^{24} + 19y^{23} + \cdots + 68y + 9$
c_6	$y^{24} + 82y^{23} + \cdots + 1135326279y + 86471401$
c_7, c_{11}, c_{12}	$y^{24} + 41y^{23} + \cdots + 2048y + 256$
c_8	$y^{24} - 34y^{23} + \cdots - 21038113y + 7198489$
c_{10}	$y^{24} - 21y^{23} + \cdots + 5492y + 81$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.232862 + 0.947035I$ $a = -0.649985 - 0.077686I$ $b = 0.374440 + 0.304409I$	$0.779807 + 1.048970I$	$7.25519 - 5.58365I$
$u = 0.232862 - 0.947035I$ $a = -0.649985 + 0.077686I$ $b = 0.374440 - 0.304409I$	$0.779807 - 1.048970I$	$7.25519 + 5.58365I$
$u = 0.943560 + 0.064690I$ $a = 0.988902 + 0.233923I$ $b = -0.682289 + 0.802318I$	$-3.89306 - 0.24557I$	$-2.31984 + 1.35715I$
$u = 0.943560 - 0.064690I$ $a = 0.988902 - 0.233923I$ $b = -0.682289 - 0.802318I$	$-3.89306 + 0.24557I$	$-2.31984 - 1.35715I$
$u = -0.959379 + 0.455770I$ $a = 0.646370 - 0.274793I$ $b = -0.415041 + 0.335328I$	$-0.27313 + 3.15044I$	$2.29434 - 0.19419I$
$u = -0.959379 - 0.455770I$ $a = 0.646370 + 0.274793I$ $b = -0.415041 - 0.335328I$	$-0.27313 - 3.15044I$	$2.29434 + 0.19419I$
$u = -0.502276 + 0.647230I$ $a = -0.990775 + 0.287392I$ $b = 0.278387 + 0.380293I$	$0.422299 + 1.283840I$	$4.39270 - 6.02370I$
$u = -0.502276 - 0.647230I$ $a = -0.990775 - 0.287392I$ $b = 0.278387 - 0.380293I$	$0.422299 - 1.283840I$	$4.39270 + 6.02370I$
$u = 0.933542 + 0.786148I$ $a = -0.749432 - 0.148046I$ $b = 0.084838 - 1.367360I$	$-4.97420 - 2.33173I$	$-0.59644 + 2.89442I$
$u = 0.933542 - 0.786148I$ $a = -0.749432 + 0.148046I$ $b = 0.084838 + 1.367360I$	$-4.97420 + 2.33173I$	$-0.59644 - 2.89442I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.607235 + 1.070690I$ $a = -0.470711 + 0.110611I$ $b = 0.07764 - 1.45718I$	$-4.85669 - 2.39093I$	$0.84102 + 2.37108I$
$u = 0.607235 - 1.070690I$ $a = -0.470711 - 0.110611I$ $b = 0.07764 + 1.45718I$	$-4.85669 + 2.39093I$	$0.84102 - 2.37108I$
$u = 1.21724 + 0.74996I$ $a = 0.400953 - 1.002140I$ $b = 0.15154 - 2.05062I$	$15.8709 - 2.8783I$	$-1.59016 + 0.69856I$
$u = 1.21724 - 0.74996I$ $a = 0.400953 + 1.002140I$ $b = 0.15154 + 2.05062I$	$15.8709 + 2.8783I$	$-1.59016 - 0.69856I$
$u = 1.52531 + 0.37916I$ $a = 0.108996 - 0.705821I$ $b = 0.138338 - 0.696834I$	$-1.17892 + 4.17832I$	$-0.72824 - 4.64199I$
$u = 1.52531 - 0.37916I$ $a = 0.108996 + 0.705821I$ $b = 0.138338 + 0.696834I$	$-1.17892 - 4.17832I$	$-0.72824 + 4.64199I$
$u = -1.78012 + 0.29967I$ $a = -0.680725 + 0.483351I$ $b = 0.08900 + 1.95850I$	$-18.4389 + 3.9255I$	$0.72969 - 1.86370I$
$u = -1.78012 - 0.29967I$ $a = -0.680725 - 0.483351I$ $b = 0.08900 - 1.95850I$	$-18.4389 - 3.9255I$	$0.72969 + 1.86370I$
$u = -1.82828 + 0.75998I$ $a = 0.679108 - 0.172953I$ $b = -0.71021 - 1.48438I$	$-10.81740 + 5.66544I$	$-1.94284 - 3.68332I$
$u = -1.82828 - 0.75998I$ $a = 0.679108 + 0.172953I$ $b = -0.71021 + 1.48438I$	$-10.81740 - 5.66544I$	$-1.94284 + 3.68332I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.85631 + 0.81470I$ $a = 0.104205 + 0.704147I$ $b = 0.40009 + 1.66939I$	$-9.33657 - 1.50490I$	$-1.60303 + 1.18708I$
$u = -1.85631 - 0.81470I$ $a = 0.104205 - 0.704147I$ $b = 0.40009 - 1.66939I$	$-9.33657 + 1.50490I$	$-1.60303 - 1.18708I$
$u = 2.46660 + 0.93685I$ $a = 0.504632 + 0.296006I$ $b = -0.28674 + 1.91373I$	$16.9567 - 10.8896I$	$0. + 4.72097I$
$u = 2.46660 - 0.93685I$ $a = 0.504632 - 0.296006I$ $b = -0.28674 - 1.91373I$	$16.9567 + 10.8896I$	$0. - 4.72097I$

II. $\boldsymbol{I_2^u = \langle u^3 - 3u^2 + 2b + 3u - 1,\ -u^3 + 4u^2 + 6a - u - 6,\ u^4 - 4u^3 + 4u^2 + 3\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

$$a_{11} = \begin{pmatrix} \frac{1}{6}u^3 - \frac{2}{3}u^2 + \frac{1}{6}u + 1 \\ -\frac{1}{2}u^3 + \frac{3}{2}u^2 - \frac{3}{2}u + \frac{1}{2} \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -\frac{1}{3}u^3 + \frac{5}{6}u^2 - \frac{4}{3}u + \frac{3}{2} \\ -\frac{1}{2}u^3 + \frac{3}{2}u^2 - \frac{3}{2}u + \frac{1}{2} \end{pmatrix}$$

$$a_3 = \begin{pmatrix} \frac{1}{6}u^3 - \frac{2}{3}u^2 + \frac{7}{6}u - 1 \\ \frac{1}{2}u^3 - \frac{3}{2}u^2 + \frac{3}{2}u + \frac{1}{2} \end{pmatrix}$$

$$a_2 = \begin{pmatrix} \frac{1}{6}u^3 - \frac{2}{3}u^2 + \frac{7}{6}u - 1 \\ u^3 - \frac{5}{2}u^2 + u + \frac{1}{2} \end{pmatrix}$$

$$a_5 = \begin{pmatrix} \frac{1}{6}u^3 - \frac{2}{3}u^2 + \frac{1}{6}u + 1 \\ -\frac{1}{2}u^3 + \frac{3}{2}u^2 - \frac{3}{2}u + \frac{1}{2} \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -\frac{1}{6}u^3 + \frac{2}{3}u^2 - \frac{1}{6}u - 1 \\ \frac{1}{2}u^3 - \frac{3}{2}u^2 + \frac{3}{2}u - \frac{1}{2} \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -\frac{1}{6}u^3 + \frac{7}{6}u^2 - \frac{13}{6}u - \frac{1}{2} \\ -2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -\frac{1}{6}u^3 + \frac{2}{3}u^2 - \frac{7}{6}u \\ -\frac{1}{2}u^3 + \frac{1}{2}u^2 - \frac{1}{2}u - \frac{1}{2} \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} \frac{1}{6}u^3 - \frac{1}{6}u^2 - \frac{5}{6}u + \frac{3}{2} \\ \frac{1}{2}u^3 - \frac{3}{2}u - 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

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

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_9 c_{10}	$(y^2 + y + 1)^2$
c_6, c_8	$y^4 - 8y^3 + 22y^2 + 24y + 9$
c_7, c_{11}, c_{12}	$(y + 2)^4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.224745 + 0.707107I$ $a = 1.316500 + 0.288675I$ $b = -1.414210I$	$-4.93480 + 4.05977I$	$0. - 6.92820I$
$u = -0.224745 - 0.707107I$ $a = 1.316500 - 0.288675I$ $b = 1.414210I$	$-4.93480 - 4.05977I$	$0. + 6.92820I$
$u = 2.22474 + 0.70711I$ $a = -0.316497 - 0.288675I$ $b = -1.414210I$	$-4.93480 - 4.05977I$	$0. + 6.92820I$
$u = 2.22474 - 0.70711I$ $a = -0.316497 + 0.288675I$ $b = 1.414210I$	$-4.93480 + 4.05977I$	$0. - 6.92820I$

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

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$

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

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

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

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

$$a_3 = \begin{pmatrix} a+1 \\ -1 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} a+1 \\ a \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -a \\ 0 \end{pmatrix}$$

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

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

$$a_6 = \begin{pmatrix} -a \\ 1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0 \\ -a \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -8a + 2$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.00000$ $a = -0.500000 + 0.866025I$ $b = 0$	$4.05977I$	$6.00000 - 6.92820I$
$u = -1.00000$ $a = -0.500000 - 0.866025I$ $b = 0$	$-4.05977I$	$6.00000 + 6.92820I$

IV.

$$\boldsymbol{I_4^u = \langle -u^3-3u^2+b-3u+4,\ -3u^3-8u^2+3a-8u+12,\ u^4+2u^3+u^2-6u+3\rangle}$$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u^3 + \frac{8}{3}u^2 + \frac{8}{3}u - 4 \\ u^3 + 3u^2 + 3u - 4 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 2u^3 + \frac{17}{3}u^2 + \frac{17}{3}u - 8 \\ u^3 + 3u^2 + 3u - 4 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -\frac{2}{3}u^3 - 2u^2 - \frac{7}{3}u + 2 \\ -\frac{1}{3}u^3 - \frac{4}{3}u^2 - u + 1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -\frac{2}{3}u^3 - 2u^2 - \frac{7}{3}u + 2 \\ -\frac{2}{3}u^3 - \frac{8}{3}u^2 - 3u + 3 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^3 + \frac{8}{3}u^2 + \frac{8}{3}u - 4 \\ u^3 + 3u^2 + 3u - 4 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^3 - \frac{8}{3}u^2 - \frac{8}{3}u + 4 \\ -u^3 - 3u^2 - 3u + 4 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -\frac{1}{3}u^3 - u^2 - \frac{5}{3}u - 1 \\ -2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} \frac{1}{3}u^3 + \frac{2}{3}u^2 + \frac{1}{3}u - 3 \\ \frac{2}{3}u^3 + \frac{2}{3}u^2 + u - 3 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} \frac{5}{3}u^3 + \frac{13}{3}u^2 + \frac{14}{3}u - 6 \\ \frac{5}{3}u^3 + \frac{14}{3}u^2 + 3u - 5 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 0$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_9 c_{10}	$(y^2 + y + 1)^2$
c_6, c_8	$y^4 - 2y^3 + 31y^2 - 30y + 9$
c_7, c_{11}, c_{12}	$(y + 2)^4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.724745 + 0.158919I$ $a = -0.408248 + 1.284460I$ $b = 1.414210I$	-4.93480	0
$u = 0.724745 - 0.158919I$ $a = -0.408248 - 1.284460I$ $b = -1.414210I$	-4.93480	0
$u = -1.72474 + 1.57313I$ $a = 0.408248 - 0.129757I$ $b = -1.414210I$	-4.93480	0
$u = -1.72474 - 1.57313I$ $a = 0.408248 + 0.129757I$ $b = 1.414210I$	-4.93480	0

V. $I_5^u = \langle b,\ a-1,\ u^2-u+1\rangle$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 0$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

	Solutions to I_5^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u =$	$0.500000 + 0.866025I$		
$a =$	1.00000	0	0
$b =$	0		
$u =$	$0.500000 - 0.866025I$		
$a =$	1.00000	0	0
$b =$	0		

VI. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^2-u+1)^6)(u^{24}+43u^{23}+\cdots+1172u+81)$
c_2	$((u^2+u+1)^6)(u^{24}-3u^{23}+\cdots-68u+9)$
c_3	$((u^2-u+1)^4)(u^2+u+1)^2(u^{24}+3u^{23}+\cdots-4u+3)$
c_4	$((u^2-u+1)^6)(u^{24}-3u^{23}+\cdots-68u+9)$
c_5	$((u^2-u+1)^4)(u^2+u+1)^2(u^{24}-3u^{23}+\cdots+10u+3)$
c_6	$(u+1)^2(u^2-u+1)(u^4-2u^3+u^2+6u+3)(u^4+4u^3+4u^2+3)$ $\cdot(u^{24}+2u^{23}+\cdots+20857u+9299)$
c_7, c_{11}, c_{12}	$u^4(u^2+2)^4(u^{24}+u^{23}+\cdots-32u+16)$
c_8	$(u+1)^2(u^2-u+1)(u^4-4u^3+4u^2+3)(u^4+2u^3+u^2-6u+3)$ $\cdot(u^{24}-2u^{23}+\cdots-4461u+2683)$
c_9	$((u^2-u+1)^2)(u^2+u+1)^4(u^{24}-3u^{23}+\cdots+10u+3)$
c_{10}	$((u^2+u+1)^6)(u^{24}+19u^{23}+\cdots+68u+9)$

VII. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^2+y+1)^6)(y^{24}-117y^{23}+\cdots-1128316y+6561)$
c_2, c_4	$((y^2+y+1)^6)(y^{24}+43y^{23}+\cdots+1172y+81)$
c_3	$((y^2+y+1)^6)(y^{24}+3y^{23}+\cdots+68y+9)$
c_5, c_9	$((y^2+y+1)^6)(y^{24}+19y^{23}+\cdots+68y+9)$
c_6	$(y-1)^2(y^2+y+1)(y^4-8y^3+22y^2+24y+9)$ $\cdot(y^4-2y^3+31y^2-30y+9)$ $\cdot(y^{24}+82y^{23}+\cdots+1135326279y+86471401)$
c_7, c_{11}, c_{12}	$y^4(y+2)^8(y^{24}+41y^{23}+\cdots+2048y+256)$
c_8	$(y-1)^2(y^2+y+1)(y^4-8y^3+22y^2+24y+9)$ $\cdot(y^4-2y^3+31y^2-30y+9)$ $\cdot(y^{24}-34y^{23}+\cdots-21038113y+7198489)$
c_{10}	$((y^2+y+1)^6)(y^{24}-21y^{23}+\cdots+5492y+81)$