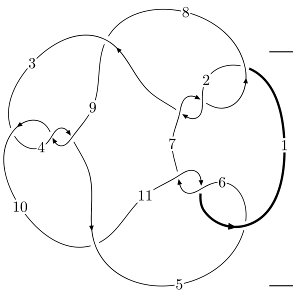
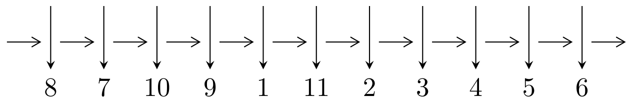
$11a_{366}$ ($K11a_{366}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle b-u,\ -u^5-u^4-3u^3-2u^2+a-u,\ u^6+u^5+4u^4+3u^3+4u^2+2u-1\rangle$$
$$I_2^u = \langle b-u,\ u^9+3u^7+u^5-4u^3+a-u+1,\ u^{10}-u^9+5u^8-5u^7+9u^6-9u^5+6u^4-6u^3+u^2+1\rangle$$
$$\begin{aligned} I_3^u = \langle &u^9-u^8+5u^7-4u^6+9u^5-6u^4+6u^3-4u^2+b+u-1,\\ &-u^9+u^8-5u^7+5u^6-9u^5+9u^4-6u^3+6u^2+a-u,\\ &u^{10}-u^9+5u^8-5u^7+9u^6-9u^5+6u^4-6u^3+u^2+1\rangle \end{aligned}$$
$$\begin{aligned} I_4^u = \langle &u^9+u^8+3u^7+2u^6+3u^5+2u^4+2u^3+2u^2+b+2u+1,\\ &-u^9-2u^8-5u^7-6u^6-7u^5-6u^4-4u^3-4u^2+2a-3u-3,\\ &u^{10}+2u^9+5u^8+6u^7+7u^6+6u^5+4u^4+4u^3+3u^2+3u+2\rangle \end{aligned}$$
$$I_5^u = \langle b+u,\ a-u+1,\ u^2+1\rangle$$
$$I_6^u = \langle b^2+bu+u^2+1,\ -u^2+a-1,\ u^3+u+1\rangle$$

* 6 irreducible components of $\dim_{\mathbb{C}}=0$, with total 44 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.

$$\boldsymbol{I_1^u = \langle b-u,\ -u^5-u^4-3u^3-2u^2+a-u,\ u^6+u^5+4u^4+3u^3+4u^2+2u-1\rangle}$$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u^5+u^4+3u^3+2u^2+u \\ u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^5+u^4+3u^3+2u^2+2u \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u \\ u^3+u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^2+1 \\ u^4+2u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^5-2u^3-u \\ -u^4-u^3-2u^2-2u+1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^4-u^2+1 \\ u^5+u^4+2u^3+2u^2 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u^4+u^3+3u^2+2u \\ -u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^3+2u \\ -u^4-2u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^3+2u \\ -u^4-2u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -6u^4-6u^3-18u^2-12u-16$

(iv) u-Polynomials at the component

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

(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_7, c_9, c_{11}	$y^6 + 7y^5 + 18y^4 + 17y^3 - 4y^2 - 12y + 1$
c_8, c_{10}	$y^6 - 3y^5 + 3y^4 - y^3 + 96y^2 - 176y + 16$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.800464$ $a=-0.975734$ $b=-0.800464$	-5.50851	-17.3140
$u=-0.37587+1.37813I$ $a=-1.38712-1.74048I$ $b=-0.37587+1.37813I$	$7.7894+12.7681I$	$-4.48012-7.54465I$
$u=-0.37587-1.37813I$ $a=-1.38712+1.74048I$ $b=-0.37587-1.37813I$	$7.7894-12.7681I$	$-4.48012+7.54465I$
$u=0.13297+1.45639I$ $a=0.61041-2.42559I$ $b=0.13297+1.45639I$	$14.9383-4.7754I$	$-0.31743+3.39879I$
$u=0.13297-1.45639I$ $a=0.61041+2.42559I$ $b=0.13297-1.45639I$	$14.9383+4.7754I$	$-0.31743-3.39879I$
$u=0.286259$ $a=0.529157$ $b=0.286259$	-0.468566	-21.0910

II. $\boldsymbol{I_2^u = \langle b - u,\ u^9 + 3u^7 + u^5 - 4u^3 + a - u + 1,\ u^{10} - u^9 + \cdots + u^2 + 1\rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u^9 - 3u^7 - u^5 + 4u^3 + u - 1 \\ u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u^9 - 3u^7 - u^5 + 4u^3 + 2u - 1 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^5 - 2u^3 - u \\ -u^7 - 3u^5 - 2u^3 + u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -2u^9 - 8u^7 - 10u^5 + u^4 - u^3 + 3u^2 + 4u + 1 \\ -u^9 - 5u^7 + u^6 - 9u^5 + 4u^4 - 5u^3 + 5u^2 + 2u + 1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u^9 - 2u^8 + 5u^7 - 8u^6 + 9u^5 - 10u^4 + 6u^3 - 2u^2 + u \\ -u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^9 - 2u^8 + 5u^7 - 8u^6 + 9u^5 - 11u^4 + 6u^3 - 5u^2 + u \\ -u^4 - 2u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^9 - 2u^8 + 5u^7 - 8u^6 + 9u^5 - 11u^4 + 6u^3 - 5u^2 + u \\ -u^4 - 2u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u^8 + 16u^6 - 4u^5 + 20u^4 - 12u^3 + 4u^2 - 12u - 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_5 c_6, c_7, c_{11}	$u^{10} + u^9 + 5u^8 + 5u^7 + 9u^6 + 9u^5 + 6u^4 + 6u^3 + u^2 + 1$
c_3, c_4, c_9	$u^{10} - 2u^9 + 5u^8 - 6u^7 + 7u^6 - 6u^5 + 4u^4 - 4u^3 + 3u^2 - 3u + 2$
c_8, c_{10}	$u^{10} + 2u^9 - u^8 - 5u^7 - 3u^6 + 4u^5 + 12u^4 + 13u^3 + 5u^2 + u + 2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_5 c_6, c_7, c_{11}	$y^{10} + 9y^9 + 33y^8 + 59y^7 + 41y^6 - 21y^5 - 44y^4 - 6y^3 + 13y^2 + 2y + 1$
c_3, c_4, c_9	$y^{10} + 6y^9 + 15y^8 + 18y^7 + 7y^6 - 6y^5 - 6y^4 + y^2 + 3y + 4$
c_8, c_{10}	$y^{10} - 6y^9 + \cdots + 19y + 4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.800451 + 0.099834I$ $a = 0.984240 + 0.025977I$ $b = 0.800451 + 0.099834I$	$-1.58679 - 4.14585I$	$-12.98134 + 3.97600I$
$u = 0.800451 - 0.099834I$ $a = 0.984240 - 0.025977I$ $b = 0.800451 - 0.099834I$	$-1.58679 + 4.14585I$	$-12.98134 - 3.97600I$
$u = -0.280829 + 1.292560I$ $a = -1.76028 - 2.20870I$ $b = -0.280829 + 1.292560I$	$5.70347 + 3.47839I$	$-4.80497 - 2.79515I$
$u = -0.280829 - 1.292560I$ $a = -1.76028 + 2.20870I$ $b = -0.280829 - 1.292560I$	$5.70347 - 3.47839I$	$-4.80497 + 2.79515I$
$u = -0.057928 + 1.351670I$ $a = -0.46648 - 3.19340I$ $b = -0.057928 + 1.351670I$	$8.22706 + 2.31006I$	$-3.13631 - 3.52133I$
$u = -0.057928 - 1.351670I$ $a = -0.46648 + 3.19340I$ $b = -0.057928 - 1.351670I$	$8.22706 - 2.31006I$	$-3.13631 + 3.52133I$
$u = 0.347624 + 1.331990I$ $a = 1.56700 - 1.85631I$ $b = 0.347624 + 1.331990I$	$2.90872 - 8.28632I$	$-8.17560 + 6.14881I$
$u = 0.347624 - 1.331990I$ $a = 1.56700 + 1.85631I$ $b = 0.347624 - 1.331990I$	$2.90872 + 8.28632I$	$-8.17560 - 6.14881I$
$u = -0.309318 + 0.396943I$ $a = -0.824473 + 0.630441I$ $b = -0.309318 + 0.396943I$	$2.84181 + 1.23169I$	$-8.90177 - 5.44908I$
$u = -0.309318 - 0.396943I$ $a = -0.824473 - 0.630441I$ $b = -0.309318 - 0.396943I$	$2.84181 - 1.23169I$	$-8.90177 + 5.44908I$

III.

$$\boldsymbol{I_3^u = \langle u^9 - u^8 + \cdots + b - 1,\ -u^9 + u^8 + \cdots + a - u,\ u^{10} - u^9 + \cdots + u^2 + 1\rangle}$$

(i) Arc colorings

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

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

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u^9 - u^8 + 5u^7 - 5u^6 + 9u^5 - 9u^4 + 6u^3 - 6u^2 + u \\ -u^9 + u^8 - 5u^7 + 4u^6 - 9u^5 + 6u^4 - 6u^3 + 4u^2 - u + 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^6 - 3u^4 - 2u^2 + 1 \\ -u^9 + u^8 - 5u^7 + 4u^6 - 9u^5 + 6u^4 - 6u^3 + 4u^2 - u + 1 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^5 - 2u^3 - u \\ -u^7 - 3u^5 - 2u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u^4 - u^2 + 1 \\ -u^9 + 2u^8 - 5u^7 + 7u^6 - 9u^5 + 8u^4 - 6u^3 + 3u^2 - u + 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^9 - 4u^7 - 5u^5 + 3u \\ -u^7 - 3u^5 - 2u^3 + u^2 + u + 2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^3 + 2u \\ u^9 + 3u^7 + 2u^5 - u^3 + 1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^3 + 2u \\ u^9 + 3u^7 + 2u^5 - u^3 + 1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u^8 + 16u^6 - 4u^5 + 20u^4 - 12u^3 + 4u^2 - 12u - 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_3 c_4, c_7, c_9	$u^{10} + u^9 + 5u^8 + 5u^7 + 9u^6 + 9u^5 + 6u^4 + 6u^3 + u^2 + 1$
c_5, c_6, c_{11}	$u^{10} - 2u^9 + 5u^8 - 6u^7 + 7u^6 - 6u^5 + 4u^4 - 4u^3 + 3u^2 - 3u + 2$
c_8, c_{10}	$u^{10} + 2u^9 - u^8 - 5u^7 - 3u^6 + 4u^5 + 12u^4 + 13u^3 + 5u^2 + u + 2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_7, c_9	$y^{10} + 9y^9 + 33y^8 + 59y^7 + 41y^6 - 21y^5 - 44y^4 - 6y^3 + 13y^2 + 2y + 1$
c_5, c_6, c_{11}	$y^{10} + 6y^9 + 15y^8 + 18y^7 + 7y^6 - 6y^5 - 6y^4 + y^2 + 3y + 4$
c_8, c_{10}	$y^{10} - 6y^9 + \cdots + 19y + 4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.800451 + 0.099834I$ $a = -1.230160 + 0.153429I$ $b = -0.350885 - 1.264620I$	$-1.58679 - 4.14585I$	$-12.98134 + 3.97600I$
$u = 0.800451 - 0.099834I$ $a = -1.230160 - 0.153429I$ $b = -0.350885 + 1.264620I$	$-1.58679 + 4.14585I$	$-12.98134 - 3.97600I$
$u = -0.280829 + 1.292560I$ $a = 0.160513 + 0.738786I$ $b = -0.480814 - 1.084510I$	$5.70347 + 3.47839I$	$-4.80497 - 2.79515I$
$u = -0.280829 - 1.292560I$ $a = 0.160513 - 0.738786I$ $b = -0.480814 + 1.084510I$	$5.70347 - 3.47839I$	$-4.80497 + 2.79515I$
$u = -0.057928 + 1.351670I$ $a = 0.031648 + 0.738467I$ $b = 0.642886 - 0.580182I$	$8.22706 + 2.31006I$	$-3.13631 - 3.52133I$
$u = -0.057928 - 1.351670I$ $a = 0.031648 - 0.738467I$ $b = 0.642886 + 0.580182I$	$8.22706 - 2.31006I$	$-3.13631 + 3.52133I$
$u = 0.347624 + 1.331990I$ $a = -0.183438 + 0.702881I$ $b = -0.871979 - 0.168588I$	$2.90872 - 8.28632I$	$-8.17560 + 6.14881I$
$u = 0.347624 - 1.331990I$ $a = -0.183438 - 0.702881I$ $b = -0.871979 + 0.168588I$	$2.90872 + 8.28632I$	$-8.17560 - 6.14881I$
$u = -0.309318 + 0.396943I$ $a = 1.22144 + 1.56745I$ $b = 0.060791 - 1.179490I$	$2.84181 + 1.23169I$	$-8.90177 - 5.44908I$
$u = -0.309318 - 0.396943I$ $a = 1.22144 - 1.56745I$ $b = 0.060791 + 1.179490I$	$2.84181 - 1.23169I$	$-8.90177 + 5.44908I$

IV.

$$\boldsymbol{I^u_4 = \langle u^9 + u^8 + \cdots + b + 1,\ -u^9 - 2u^8 + \cdots + 2a - 3,\ u^{10} + 2u^9 + \cdots + 3u + 2\rangle}$$

(i) Arc colorings

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

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

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} \frac{1}{2}u^9 + u^8 + \cdots + \frac{3}{2}u + \frac{3}{2} \\ -u^9 - u^8 - 3u^7 - 2u^6 - 3u^5 - 2u^4 - 2u^3 - 2u^2 - 2u - 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -\frac{1}{2}u^9 - \frac{1}{2}u^7 + \cdots - \frac{1}{2}u + \frac{1}{2} \\ -u^9 - u^8 - 3u^7 - 2u^6 - 3u^5 - 2u^4 - 2u^3 - 2u^2 - 2u - 1 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^5 - 2u^3 - u \\ -u^7 - 3u^5 - 2u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} \frac{1}{2}u^9 + \frac{5}{2}u^7 + \cdots - \frac{1}{2}u + \frac{5}{2} \\ u^9 + 3u^7 + 3u^5 + 2u^4 + u^3 + 4u^2 + 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} \frac{1}{2}u^9 + \frac{3}{2}u^7 + \cdots - \frac{1}{2}u + \frac{1}{2} \\ u^9 + 2u^8 + 4u^7 + 4u^6 + 4u^5 + 2u^4 + 2u^3 + 2u^2 + 2u + 3 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} \frac{1}{2}u^9 + \frac{1}{2}u^7 + \cdots - \frac{1}{2}u - \frac{1}{2} \\ u^9 + 2u^8 + 3u^7 + 4u^6 + 2u^5 + 3u^4 + u^3 + 2u^2 + 2u + 1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} \frac{1}{2}u^9 + \frac{1}{2}u^7 + \cdots - \frac{1}{2}u - \frac{1}{2} \\ u^9 + 2u^8 + 3u^7 + 4u^6 + 2u^5 + 3u^4 + u^3 + 2u^2 + 2u + 1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^7 - 8u^5 - 4u^3 + 4u - 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_7	$u^{10} - 2u^9 + 5u^8 - 6u^7 + 7u^6 - 6u^5 + 4u^4 - 4u^3 + 3u^2 - 3u + 2$
c_3, c_4, c_5 c_6, c_9, c_{11}	$u^{10} + u^9 + 5u^8 + 5u^7 + 9u^6 + 9u^5 + 6u^4 + 6u^3 + u^2 + 1$
c_8, c_{10}	$u^{10} + 2u^9 - u^8 - 5u^7 - 3u^6 + 4u^5 + 12u^4 + 13u^3 + 5u^2 + u + 2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_7	$y^{10} + 6y^9 + 15y^8 + 18y^7 + 7y^6 - 6y^5 - 6y^4 + y^2 + 3y + 4$
c_3, c_4, c_5 c_6, c_9, c_{11}	$y^{10} + 9y^9 + 33y^8 + 59y^7 + 41y^6 - 21y^5 - 44y^4 - 6y^3 + 13y^2 + 2y + 1$
c_8, c_{10}	$y^{10} - 6y^9 + \cdots + 19y + 4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.871979 + 0.168588I$ $a = 1.105490 + 0.213735I$ $b = 0.347624 - 1.331990I$	$2.90872 + 8.28632I$	$-8.17560 - 6.14881I$
$u = -0.871979 - 0.168588I$ $a = 1.105490 - 0.213735I$ $b = 0.347624 + 1.331990I$	$2.90872 - 8.28632I$	$-8.17560 + 6.14881I$
$u = 0.642886 + 0.580182I$ $a = -0.857280 + 0.773665I$ $b = -0.057928 - 1.351670I$	$8.22706 - 2.31006I$	$-3.13631 + 3.52133I$
$u = 0.642886 - 0.580182I$ $a = -0.857280 - 0.773665I$ $b = -0.057928 + 1.351670I$	$8.22706 + 2.31006I$	$-3.13631 - 3.52133I$
$u = 0.060791 + 1.179490I$ $a = -0.043581 + 0.845578I$ $b = -0.309318 - 0.396943I$	$2.84181 - 1.23169I$	$-8.90177 + 5.44908I$
$u = 0.060791 - 1.179490I$ $a = -0.043581 - 0.845578I$ $b = -0.309318 + 0.396943I$	$2.84181 + 1.23169I$	$-8.90177 - 5.44908I$
$u = -0.480814 + 1.084510I$ $a = 0.341647 + 0.770609I$ $b = -0.280829 - 1.292560I$	$5.70347 - 3.47839I$	$-4.80497 + 2.79515I$
$u = -0.480814 - 1.084510I$ $a = 0.341647 - 0.770609I$ $b = -0.280829 + 1.292560I$	$5.70347 + 3.47839I$	$-4.80497 - 2.79515I$
$u = -0.350885 + 1.264620I$ $a = 0.203721 + 0.734227I$ $b = 0.800451 - 0.099834I$	$-1.58679 + 4.14585I$	$-12.98134 - 3.97600I$
$u = -0.350885 - 1.264620I$ $a = 0.203721 - 0.734227I$ $b = 0.800451 + 0.099834I$	$-1.58679 - 4.14585I$	$-12.98134 + 3.97600I$

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_7, c_9, c_{11}	$u^2 + 1$
c_8, c_{10}	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_7, c_9, c_{11}	$(y+1)^2$
c_8, c_{10}	y^2

(vi) Complex Volumes and Cusp Shapes

Solutions to I_5^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.000000I$ $a = -1.00000 + 1.00000I$ $b = -1.000000I$	4.93480	-4.00000
$u = -1.000000I$ $a = -1.00000 - 1.00000I$ $b = 1.000000I$	4.93480	-4.00000

VI. $I_6^u = \langle b^2 + bu + u^2 + 1,\ -u^2 + a - 1,\ u^3 + u + 1 \rangle$

(i) Arc colorings

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -10$

(iv) u-Polynomials at the component

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

(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_7, c_9, c_{11}	$(y^3 + 2y^2 + y - 1)^2$
c_8, c_{10}	$(y-1)^6$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_6^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.341164 + 1.161540I$ $a = -0.232786 + 0.792552I$ $b = 0.341164 - 1.161540I$	1.64493	−10.0000
$u = 0.341164 + 1.161540I$ $a = -0.232786 + 0.792552I$ $b = -0.682328$	1.64493	−10.0000
$u = 0.341164 - 1.161540I$ $a = -0.232786 - 0.792552I$ $b = 0.341164 + 1.161540I$	1.64493	−10.0000
$u = 0.341164 - 1.161540I$ $a = -0.232786 - 0.792552I$ $b = -0.682328$	1.64493	−10.0000
$u = -0.682328$ $a = 1.46557$ $b = 0.341164 + 1.161540I$	1.64493	−10.0000
$u = -0.682328$ $a = 1.46557$ $b = 0.341164 - 1.161540I$	1.64493	−10.0000

VII. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_7, c_9, c_{11}	$(u^2+1)(u^3+u-1)^2(u^6-u^5+4u^4-3u^3+4u^2-2u-1)$ $\cdot(u^{10}-2u^9+5u^8-6u^7+7u^6-6u^5+4u^4-4u^3+3u^2-3u+2)$ $\cdot(u^{10}+u^9+5u^8+5u^7+9u^6+9u^5+6u^4+6u^3+u^2+1)^2$
c_8, c_{10}	$u^2(u-1)^6(u^6+u^5-u^4+3u^3+4u^2-12u-4)$ $\cdot(u^{10}+2u^9-u^8-5u^7-3u^6+4u^5+12u^4+13u^3+5u^2+u+2)^3$

VIII. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_7, c_9, c_{11}	$((y+1)^2)(y^3+2y^2+y-1)^2(y^6+7y^5+\cdots-12y+1)$ $\cdot(y^{10}+6y^9+15y^8+18y^7+7y^6-6y^5-6y^4+y^2+3y+4)$ $\cdot(y^{10}+9y^9+33y^8+59y^7+41y^6-21y^5-44y^4-6y^3+13y^2+2y+1)^2$
c_8, c_{10}	$y^2(y-1)^6(y^6-3y^5+3y^4-y^3+96y^2-176y+16)$ $\cdot(y^{10}-6y^9+\cdots+19y+4)^3$