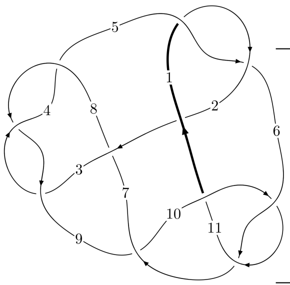
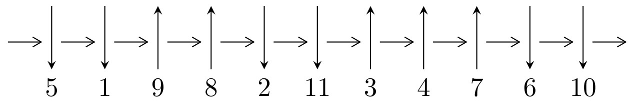
$11a_{107}$ ($K11a_{107}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -u^{21} - 2u^{20} + \cdots + b - 1,\ -u^{21} - 3u^{20} + \cdots + 2a - 4,\ u^{22} + 3u^{21} + \cdots + 8u + 2 \rangle$$
$$I_2^u = \langle -18u^{17}a + 8u^{17} + \cdots - 23a + 44,\ -2u^{17}a + 2u^{17} + \cdots - 6a + 5,\ u^{18} - u^{17} + \cdots + 3u - 1 \rangle$$
$$I_3^u = \langle b + 1,\ 2a - u,\ u^2 + 2 \rangle$$

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

* 4 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.

$$I_1^u = \langle -u^{21} - 2u^{20} + \cdots + b - 1,\ -u^{21} - 3u^{20} + \cdots + 2a - 4,\ u^{22} + 3u^{21} + \cdots + 8u + 2 \rangle$$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} \frac{1}{2}u^{21} + \frac{3}{2}u^{20} + \cdots + 3u + 2 \\ u^{21} + 2u^{20} + \cdots + 4u + 1 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} \frac{1}{2}u^{21} + \frac{1}{2}u^{20} + \cdots + u + 1 \\ -u^{21} - 2u^{20} + \cdots - 4u - 1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^2 + 1 \\ -u^4 - 2u^2 \end{pmatrix}$$

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

$$a_{10} = \begin{pmatrix} u^7 + 4u^5 + 4u^3 \\ -u^7 - 3u^5 - 2u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -\frac{1}{2}u^{21} - \frac{1}{2}u^{20} + \cdots - 3u^2 - u \\ u^{21} + 2u^{20} + \cdots + 3u + 1 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} \frac{3}{2}u^{21} + \frac{9}{2}u^{20} + \cdots + 16u + 6 \\ -u^{19} - 3u^{18} + \cdots - 6u - 3 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} \frac{3}{2}u^{21} + \frac{9}{2}u^{20} + \cdots + 16u + 6 \\ -u^{19} - 3u^{18} + \cdots - 6u - 3 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $=$

$$8u^{21}+18u^{20}+102u^{19}+188u^{18}+534u^{17}+810u^{16}+1478u^{15}+1814u^{14}+2262u^{13}+2108u^{12}+1682u^{11}+880u^{10}+82u^9-518u^8-676u^7-544u^6-244u^5+10u^4+118u^3+108u^2+62u+20$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5, c_6 c_{10}	$u^{22} + u^{21} + \cdots + u + 1$
c_2, c_{11}	$u^{22} + 11u^{21} + \cdots + 3u + 1$
c_3, c_4, c_8	$u^{22} - 3u^{21} + \cdots - 8u + 2$
c_7	$u^{22} + 3u^{21} + \cdots - 16u + 2$
c_9	$u^{22} + 3u^{21} + \cdots - 64u^2 + 16$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5, c_6 c_{10}	$y^{22} - 11y^{21} + \cdots - 3y + 1$
c_2, c_{11}	$y^{22} + 5y^{21} + \cdots + 5y + 1$
c_3, c_4, c_8	$y^{22} + 21y^{21} + \cdots + 8y + 4$
c_7	$y^{22} + 9y^{21} + \cdots - 24y + 4$
c_9	$y^{22} + 13y^{21} + \cdots - 2048y + 256$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.099141 + 1.060720I$ $a = 0.817278 + 0.592678I$ $b = -0.080492 - 0.751236I$	$-0.63227 - 1.36325I$	$-0.37432 + 3.42755I$
$u = 0.099141 - 1.060720I$ $a = 0.817278 - 0.592678I$ $b = -0.080492 + 0.751236I$	$-0.63227 + 1.36325I$	$-0.37432 - 3.42755I$
$u = -0.586314 + 0.582688I$ $a = 1.103980 - 0.244349I$ $b = -1.09402 + 1.14571I$	$-5.03371 + 6.28370I$	$-5.65704 - 3.70414I$
$u = -0.586314 - 0.582688I$ $a = 1.103980 + 0.244349I$ $b = -1.09402 - 1.14571I$	$-5.03371 - 6.28370I$	$-5.65704 + 3.70414I$
$u = -0.721391 + 0.399058I$ $a = -0.26176 + 2.28725I$ $b = -1.12690 - 1.26320I$	$-4.37280 - 10.68880I$	$-4.26664 + 8.95764I$
$u = -0.721391 - 0.399058I$ $a = -0.26176 - 2.28725I$ $b = -1.12690 + 1.26320I$	$-4.37280 + 10.68880I$	$-4.26664 - 8.95764I$
$u = 0.689708 + 0.121552I$ $a = 0.53466 - 2.02230I$ $b = -0.385181 + 0.996181I$	$2.02679 + 4.63959I$	$2.23017 - 7.26462I$
$u = 0.689708 - 0.121552I$ $a = 0.53466 + 2.02230I$ $b = -0.385181 - 0.996181I$	$2.02679 - 4.63959I$	$2.23017 + 7.26462I$
$u = -0.008426 + 0.680012I$ $a = 0.709637 + 0.189298I$ $b = -0.205333 - 0.521077I$	$-0.56996 - 1.46936I$	$-1.98240 + 4.73317I$
$u = -0.008426 - 0.680012I$ $a = 0.709637 - 0.189298I$ $b = -0.205333 + 0.521077I$	$-0.56996 + 1.46936I$	$-1.98240 - 4.73317I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.266288 + 1.293670I$ $a = -0.431973 - 1.182530I$ $b = -0.556035 + 1.146260I$	$-2.37652 + 8.11206I$	$-3.44648 - 8.70000I$
$u = 0.266288 - 1.293670I$ $a = -0.431973 + 1.182530I$ $b = -0.556035 - 1.146260I$	$-2.37652 - 8.11206I$	$-3.44648 + 8.70000I$
$u = -0.594447 + 0.259956I$ $a = 0.630368 - 0.825820I$ $b = 0.355452 + 0.329277I$	$1.11971 - 1.23902I$	$3.65819 + 2.25067I$
$u = -0.594447 - 0.259956I$ $a = 0.630368 + 0.825820I$ $b = 0.355452 - 0.329277I$	$1.11971 + 1.23902I$	$3.65819 - 2.25067I$
$u = -0.22843 + 1.41110I$ $a = 0.951917 - 0.568853I$ $b = 0.595163 + 0.296817I$	$-4.25973 - 4.25337I$	$-1.79063 + 2.48164I$
$u = -0.22843 - 1.41110I$ $a = 0.951917 + 0.568853I$ $b = 0.595163 - 0.296817I$	$-4.25973 + 4.25337I$	$-1.79063 - 2.48164I$
$u = 0.03042 + 1.47870I$ $a = 0.268624 - 0.247145I$ $b = -0.614464 - 0.368195I$	$-7.27839 - 1.13244I$	$-4.78640 + 6.09747I$
$u = 0.03042 - 1.47870I$ $a = 0.268624 + 0.247145I$ $b = -0.614464 + 0.368195I$	$-7.27839 + 1.13244I$	$-4.78640 - 6.09747I$
$u = -0.27059 + 1.46672I$ $a = -1.36291 + 1.22986I$ $b = -1.19776 - 1.31540I$	$-10.3818 - 14.3064I$	$-7.97941 + 8.76372I$
$u = -0.27059 - 1.46672I$ $a = -1.36291 - 1.22986I$ $b = -1.19776 + 1.31540I$	$-10.3818 + 14.3064I$	$-7.97941 - 8.76372I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.17596 + 1.50335I$ $a = \quad 0.040171 + 0.648478I$ $b = -1.19043 + 1.03440I$	$-11.83210 + 3.58162I$	$-9.60503 - 4.09544I$
$u = -0.17596 - 1.50335I$ $a = \quad 0.040171 - 0.648478I$ $b = -1.19043 - 1.03440I$	$-11.83210 - 3.58162I$	$-9.60503 + 4.09544I$

II. $\boldsymbol{I_2^u = \langle -18u^{17}a + 8u^{17} + \cdots - 23a + 44,\ -2u^{17}a + 2u^{17} + \cdots - 6a + 5,\ u^{18} - u^{17} + \cdots + 3u - 1 \rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} a \\ 0.947368au^{17} - 0.421053u^{17} + \cdots + 1.21053a - 2.31579 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} -0.421053au^{17} + 0.631579u^{17} + \cdots - 0.315789a + 2.47368 \\ 0.263158au^{17} + 0.105263u^{17} + \cdots + 0.947368a - 2.42105 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^2 + 1 \\ -u^4 - 2u^2 \end{pmatrix}$$

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

$$a_{10} = \begin{pmatrix} u^7 + 4u^5 + 4u^3 \\ -u^7 - 3u^5 - 2u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.947368au^{17} - 0.421053u^{17} + \cdots + 2.21053a - 1.31579 \\ 0.105263au^{17} - 0.157895u^{17} + \cdots - 0.421053a - 1.36842 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1.57895au^{17} - 1.36842u^{17} + \cdots + 3.68421a - 4.52632 \\ -0.105263au^{17} + 1.15789u^{17} + \cdots - 1.57895a + 2.36842 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1.57895au^{17} - 1.36842u^{17} + \cdots + 3.68421a - 4.52632 \\ -0.105263au^{17} + 1.15789u^{17} + \cdots - 1.57895a + 2.36842 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u^{17} - 4u^{16} + 36u^{15} - 28u^{14} + 124u^{13} - 72u^{12} + 196u^{11} - 72u^{10} + 120u^9 - 8u^7 + 36u^6 - 8u^5 + 4u^4 + 16u^3 - 8u + 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5, c_6 c_{10}	$u^{36} + u^{35} + \cdots - 6u - 3$
c_2, c_{11}	$u^{36} + 21u^{35} + \cdots + 12u + 9$
c_3, c_4, c_8	$(u^{18} + u^{17} + \cdots - 3u - 1)^2$
c_7	$(u^{18} - u^{17} + \cdots - 13u - 5)^2$
c_9	$(u^{18} + 3u^{17} + \cdots + 3u + 3)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5, c_6 c_{10}	$y^{36} - 21y^{35} + \cdots - 12y + 9$
c_2, c_{11}	$y^{36} - 13y^{35} + \cdots - 1260y + 81$
c_3, c_4, c_8	$(y^{18} + 17y^{17} + \cdots - 7y + 1)^2$
c_7	$(y^{18} + 5y^{17} + \cdots - 39y + 25)^2$
c_9	$(y^{18} + 13y^{17} + \cdots - 75y + 9)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.215059 + 1.214380I$ $a = 0.002300 + 1.089580I$ $b = -0.368793 - 0.969057I$	$-1.13659 - 3.22673I$	$-0.94474 + 3.62956I$
$u = -0.215059 + 1.214380I$ $a = 0.975063 - 0.588954I$ $b = 0.192944 + 0.699186I$	$-1.13659 - 3.22673I$	$-0.94474 + 3.62956I$
$u = -0.215059 - 1.214380I$ $a = 0.002300 - 1.089580I$ $b = -0.368793 + 0.969057I$	$-1.13659 + 3.22673I$	$-0.94474 - 3.62956I$
$u = -0.215059 - 1.214380I$ $a = 0.975063 + 0.588954I$ $b = 0.192944 - 0.699186I$	$-1.13659 + 3.22673I$	$-0.94474 - 3.62956I$
$u = 0.678984 + 0.355286I$ $a = 0.373118 + 0.790875I$ $b = 0.638489 - 0.301741I$	$-1.40107 + 5.71427I$	$-0.93404 - 6.05983I$
$u = 0.678984 + 0.355286I$ $a = -0.15211 - 2.42083I$ $b = -1.01877 + 1.13385I$	$-1.40107 + 5.71427I$	$-0.93404 - 6.05983I$
$u = 0.678984 - 0.355286I$ $a = 0.373118 - 0.790875I$ $b = 0.638489 + 0.301741I$	$-1.40107 - 5.71427I$	$-0.93404 + 6.05983I$
$u = 0.678984 - 0.355286I$ $a = -0.15211 + 2.42083I$ $b = -1.01877 - 1.13385I$	$-1.40107 - 5.71427I$	$-0.93404 + 6.05983I$
$u = -0.590027 + 0.406016I$ $a = 1.118520 - 0.162715I$ $b = -1.37030 + 0.82721I$	$-5.71606 - 1.88569I$	$-6.31669 + 3.99357I$
$u = -0.590027 + 0.406016I$ $a = -0.41536 + 2.69331I$ $b = -1.17195 - 0.92293I$	$-5.71606 - 1.88569I$	$-6.31669 + 3.99357I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.590027 - 0.406016I$ $a = 1.118520 + 0.162715I$ $b = -1.37030 - 0.82721I$	$-5.71606 + 1.88569I$	$-6.31669 - 3.99357I$
$u = -0.590027 - 0.406016I$ $a = -0.41536 - 2.69331I$ $b = -1.17195 + 0.92293I$	$-5.71606 + 1.88569I$	$-6.31669 - 3.99357I$
$u = 0.482433 + 0.528989I$ $a = 1.058110 + 0.209584I$ $b = -1.011890 - 0.890970I$	$-2.16110 - 1.78695I$	$-2.76057 - 0.02251I$
$u = 0.482433 + 0.528989I$ $a = 0.397687 + 0.345143I$ $b = 0.453860 + 0.202125I$	$-2.16110 - 1.78695I$	$-2.76057 - 0.02251I$
$u = 0.482433 - 0.528989I$ $a = 1.058110 - 0.209584I$ $b = -1.011890 + 0.890970I$	$-2.16110 + 1.78695I$	$-2.76057 + 0.02251I$
$u = 0.482433 - 0.528989I$ $a = 0.397687 - 0.345143I$ $b = 0.453860 - 0.202125I$	$-2.16110 + 1.78695I$	$-2.76057 + 0.02251I$
$u = 0.076050 + 1.298790I$ $a = -0.407477 - 0.229334I$ $b = -1.48337 - 0.18970I$	$-6.64349 + 1.57187I$	$-6.19122 - 4.22070I$
$u = 0.076050 + 1.298790I$ $a = 0.93361 - 1.86171I$ $b = -0.514584 + 0.548281I$	$-6.64349 + 1.57187I$	$-6.19122 - 4.22070I$
$u = 0.076050 - 1.298790I$ $a = -0.407477 + 0.229334I$ $b = -1.48337 + 0.18970I$	$-6.64349 - 1.57187I$	$-6.19122 + 4.22070I$
$u = 0.076050 - 1.298790I$ $a = 0.93361 + 1.86171I$ $b = -0.514584 - 0.548281I$	$-6.64349 - 1.57187I$	$-6.19122 + 4.22070I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.663049$ $a = 0.75990 + 1.61603I$ $b = -0.100234 - 0.793225I$	2.54269	4.37200
$u = -0.663049$ $a = 0.75990 - 1.61603I$ $b = -0.100234 + 0.793225I$	2.54269	4.37200
$u = 0.17132 + 1.45278I$ $a = 0.904962 + 0.528092I$ $b = 0.509101 - 0.044463I$	$-8.43501 + 0.55896I$	$-6.48886 + 0.25710I$
$u = 0.17132 + 1.45278I$ $a = -0.057144 - 0.582449I$ $b = -1.30127 - 0.81693I$	$-8.43501 + 0.55896I$	$-6.48886 + 0.25710I$
$u = 0.17132 - 1.45278I$ $a = 0.904962 - 0.528092I$ $b = 0.509101 + 0.044463I$	$-8.43501 - 0.55896I$	$-6.48886 - 0.25710I$
$u = 0.17132 - 1.45278I$ $a = -0.057144 + 0.582449I$ $b = -1.30127 + 0.81693I$	$-8.43501 - 0.55896I$	$-6.48886 - 0.25710I$
$u = 0.25789 + 1.44398I$ $a = 0.939728 + 0.593663I$ $b = 0.760772 - 0.275153I$	$-7.18011 + 9.13509I$	$-5.01305 - 5.86478I$
$u = 0.25789 + 1.44398I$ $a = -1.26389 - 1.34691I$ $b = -1.11257 + 1.23748I$	$-7.18011 + 9.13509I$	$-5.01305 - 5.86478I$
$u = 0.25789 - 1.44398I$ $a = 0.939728 - 0.593663I$ $b = 0.760772 + 0.275153I$	$-7.18011 - 9.13509I$	$-5.01305 + 5.86478I$
$u = 0.25789 - 1.44398I$ $a = -1.26389 + 1.34691I$ $b = -1.11257 - 1.23748I$	$-7.18011 - 9.13509I$	$-5.01305 + 5.86478I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.22144 + 1.45044I$ $a = -0.107041 + 0.684128I$ $b = -1.49645 + 0.92173I$	$-11.67720 - 4.87394I$	$-9.52680 + 3.60136I$
$u = -0.22144 + 1.45044I$ $a = -1.39161 + 1.57282I$ $b = -1.17047 - 1.08526I$	$-11.67720 - 4.87394I$	$-9.52680 + 3.60136I$
$u = -0.22144 - 1.45044I$ $a = -0.107041 - 0.684128I$ $b = -1.49645 - 0.92173I$	$-11.67720 + 4.87394I$	$-9.52680 - 3.60136I$
$u = -0.22144 - 1.45044I$ $a = -1.39161 - 1.57282I$ $b = -1.17047 + 1.08526I$	$-11.67720 + 4.87394I$	$-9.52680 - 3.60136I$
$u = 0.382766$ $a = 1.06482$ $b = -1.27817$	-2.66795	3.98000
$u = 0.382766$ $a = 4.59843$ $b = -0.590880$	-2.66795	3.98000

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

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} \frac{1}{2}u \\ -1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ 2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} \frac{1}{2}u+1 \\ -1 \end{pmatrix}$$

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

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

$$a_7 = \begin{pmatrix} 0 \\ -u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} \frac{1}{2}u \\ u-1 \end{pmatrix}$$

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

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -12$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.414210I$ $a = 0.707107I$ $b = -1.00000$	-8.22467	-12.0000
$u = -1.414210I$ $a = -0.707107I$ $b = -1.00000$	-8.22467	-12.0000

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -12$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

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

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$(u-1)(u+1)^2(u^{22}+u^{21}+\cdots+u+1)(u^{36}+u^{35}+\cdots-6u-3)$
c_2, c_{11}	$((u+1)^3)(u^{22}+11u^{21}+\cdots+3u+1)(u^{36}+21u^{35}+\cdots+12u+9)$
c_3, c_4, c_8	$u(u^2+2)(u^{18}+u^{17}+\cdots-3u-1)^2(u^{22}-3u^{21}+\cdots-8u+2)$
c_5, c_{10}	$((u-1)^2)(u+1)(u^{22}+u^{21}+\cdots+u+1)(u^{36}+u^{35}+\cdots-6u-3)$
c_7	$u(u^2+2)(u^{18}-u^{17}+\cdots-13u-5)^2(u^{22}+3u^{21}+\cdots-16u+2)$
c_9	$u^3(u^{18}+3u^{17}+\cdots+3u+3)^2(u^{22}+3u^{21}+\cdots-64u^2+16)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5, c_6 c_{10}	$((y-1)^3)(y^{22} - 11y^{21} + \cdots - 3y + 1)(y^{36} - 21y^{35} + \cdots - 12y + 9)$
c_2, c_{11}	$((y-1)^3)(y^{22} + 5y^{21} + \cdots + 5y + 1)(y^{36} - 13y^{35} + \cdots - 1260y + 81)$
c_3, c_4, c_8	$y(y+2)^2(y^{18} + 17y^{17} + \cdots - 7y + 1)^2(y^{22} + 21y^{21} + \cdots + 8y + 4)$
c_7	$y(y+2)^2(y^{18} + 5y^{17} + \cdots - 39y + 25)^2(y^{22} + 9y^{21} + \cdots - 24y + 4)$
c_9	$y^3(y^{18} + 13y^{17} + \cdots - 75y + 9)^2(y^{22} + 13y^{21} + \cdots - 2048y + 256)$