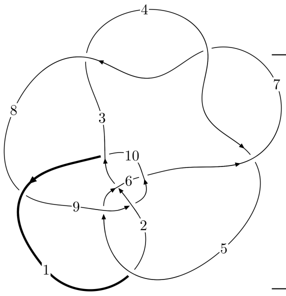
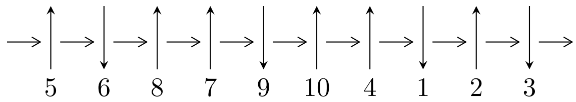
10_{114} $(K10a_{77})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 149u^{22} - 622u^{21} + \cdots + 293b - 2738,\ -2738u^{22} + 12647u^{21} + \cdots + 2051a + 19961,$$
$$u^{23} - 5u^{22} + \cdots - 46u + 7\rangle$$
$$I_2^u = \langle -u^{14} - 3u^{13} + \cdots + b + 1,\ u^{14}a + u^{14} + \cdots - a - 4,$$
$$u^{15} + 3u^{14} + 12u^{13} + 25u^{12} + 52u^{11} + 78u^{10} + 104u^9 + 109u^8 + 94u^7 + 58u^6 + 24u^5 - 2u^4 - 8u^3 - 4u^2 + 1\rangle$$
$$I_3^u = \langle u^5 + 2u^4 + 4u^3 + 4u^2 + b + 3u + 1,\ -u^7 - 2u^6 - 6u^5 - 7u^4 - 9u^3 - 5u^2 + a - 3u + 1,$$
$$u^8 + 2u^7 + 6u^6 + 8u^5 + 11u^4 + 9u^3 + 7u^2 + 2u + 1\rangle$$

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

* 4 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 62 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. $I^u_1 = \langle 149u^{22} - 622u^{21} + \cdots + 293b - 2738,\ -2738u^{22} + 12647u^{21} + \cdots + 2051a + 19961,\ u^{23} - 5u^{22} + \cdots - 46u + 7\rangle$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 1.33496u^{22} - 6.16626u^{21} + \cdots + 74.2716u - 9.73233 \\ -0.508532u^{22} + 2.12287u^{21} + \cdots - 51.6758u + 9.34471 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -3.13701u^{22} + 14.7157u^{21} + \cdots - 146.794u + 20.1351 \\ 0.969283u^{22} - 4.75768u^{21} + \cdots + 125.167u - 21.9590 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^2 + 1 \\ -u^4 - 2u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0.826426u^{22} - 4.04339u^{21} + \cdots + 22.5958u - 0.387616 \\ -0.508532u^{22} + 2.12287u^{21} + \cdots - 51.6758u + 9.34471 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1.11555u^{22} - 4.72111u^{21} + \cdots + 61.6090u - 12.8684 \\ 0.436860u^{22} - 0.890785u^{21} + \cdots - 12.6007u + 4.75085 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 0.689907u^{22} - 3.07752u^{21} + \cdots + 27.7835u - 2.87226 \\ -0.136519u^{22} + 0.965870u^{21} + \cdots - 24.8123u + 3.51536 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{1041}{293}u^{22} - \frac{5380}{293}u^{21} + \cdots + \frac{116025}{293}u - \frac{22191}{293}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{23} - 2u^{22} + \cdots - 2u - 1$
c_2, c_5	$u^{23} - u^{22} + \cdots - u - 1$
c_3, c_4, c_7	$u^{23} + 5u^{22} + \cdots - 46u - 7$
c_8, c_{10}	$u^{23} + 2u^{22} + \cdots + 14u - 1$
c_9	$u^{23} + 14u^{22} + \cdots - 43u - 7$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{23} + 2y^{22} + \cdots - 12y - 1$
c_2, c_5	$y^{23} - 9y^{22} + \cdots + 25y - 1$
c_3, c_4, c_7	$y^{23} + 23y^{22} + \cdots + 198y - 49$
c_8, c_{10}	$y^{23} - 18y^{22} + \cdots + 68y - 1$
c_9	$y^{23} + 26y^{21} + \cdots + 225y - 49$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.746057 + 0.716204I$ $a = -0.944626 + 0.309140I$ $b = 0.926152 + 0.445909I$	$-1.41145 - 5.79407I$	$-0.88331 + 5.20349I$
$u = 0.746057 - 0.716204I$ $a = -0.944626 - 0.309140I$ $b = 0.926152 - 0.445909I$	$-1.41145 + 5.79407I$	$-0.88331 - 5.20349I$
$u = 0.838014 + 0.461206I$ $a = -0.68916 + 1.31806I$ $b = 1.18542 - 0.78671I$	$-0.67120 + 11.14210I$	$1.22299 - 8.55675I$
$u = 0.838014 - 0.461206I$ $a = -0.68916 - 1.31806I$ $b = 1.18542 + 0.78671I$	$-0.67120 - 11.14210I$	$1.22299 + 8.55675I$
$u = -0.638103 + 0.842766I$ $a = 0.134410 + 0.113744I$ $b = 0.181627 - 0.040696I$	$0.67100 - 2.44356I$	$2.46207 - 5.34596I$
$u = -0.638103 - 0.842766I$ $a = 0.134410 - 0.113744I$ $b = 0.181627 + 0.040696I$	$0.67100 + 2.44356I$	$2.46207 + 5.34596I$
$u = -0.134358 + 1.265940I$ $a = 0.552051 + 0.174175I$ $b = 0.294667 - 0.675459I$	$-2.55142 - 2.44221I$	$0.25016 + 2.15872I$
$u = -0.134358 - 1.265940I$ $a = 0.552051 - 0.174175I$ $b = 0.294667 + 0.675459I$	$-2.55142 + 2.44221I$	$0.25016 - 2.15872I$
$u = 0.571973 + 0.376783I$ $a = 0.67318 - 1.94063I$ $b = -1.116240 + 0.856342I$	$-1.92126 + 3.42239I$	$-4.06899 - 7.96024I$
$u = 0.571973 - 0.376783I$ $a = 0.67318 + 1.94063I$ $b = -1.116240 - 0.856342I$	$-1.92126 - 3.42239I$	$-4.06899 + 7.96024I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.024762+1.413530I$ $a=-0.463614-0.845353I$ $b=-1.206410+0.634398I$	$-6.65304-0.20600I$	$-5.87376-0.49624I$
$u=-0.024762-1.413530I$ $a=-0.463614+0.845353I$ $b=-1.206410-0.634398I$	$-6.65304+0.20600I$	$-5.87376+0.49624I$
$u=\ \ 0.26611+1.40784I$ $a=\ \ 0.095717-0.962667I$ $b=-1.380760+0.121423I$	$-7.16412+2.89840I$	$-6.40584-0.61240I$
$u=\ \ 0.26611-1.40784I$ $a=\ \ 0.095717+0.962667I$ $b=-1.380760-0.121423I$	$-7.16412-2.89840I$	$-6.40584+0.61240I$
$u=-0.541870$ $a=\ \ 0.563072$ $b=\ \ 0.305112$	1.26878	7.95590
$u=\ \ 0.476919+0.256901I$ $a=\ \ 1.77295-0.55054I$ $b=-0.986987-0.192913I$	$-1.97196-0.18097I$	$-4.00287-0.43243I$
$u=\ \ 0.476919-0.256901I$ $a=\ \ 1.77295+0.55054I$ $b=-0.986987+0.192913I$	$-1.97196+0.18097I$	$-4.00287+0.43243I$
$u=\ \ 0.21309+1.44798I$ $a=-0.594646-1.149250I$ $b=-1.53737+1.10594I$	$-7.80750+6.31614I$	$-8.73055-7.98600I$
$u=\ \ 0.21309-1.44798I$ $a=-0.594646+1.149250I$ $b=-1.53737-1.10594I$	$-7.80750-6.31614I$	$-8.73055+7.98600I$
$u=\ \ 0.30585+1.51255I$ $a=\ \ 0.399853+1.070490I$ $b=\ \ 1.49687-0.93220I$	$-7.0586+15.3049I$	$-1.91417-8.23545I$

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.30585-1.51255I$		
$a=$	$0.399853-1.070490I$	$-7.0586-15.3049I$	$-1.91417+8.23545I$
$b=$	$1.49687+0.93220I$		
$u=$	$0.15014+1.58348I$		
$a=$	$0.068059+0.631954I$	$-9.33057-2.66158I$	$-5.53368+3.29637I$
$b=$	$0.990467-0.202654I$		
$u=$	$0.15014-1.58348I$		
$a=$	$0.068059-0.631954I$	$-9.33057+2.66158I$	$-5.53368-3.29637I$
$b=$	$0.990467+0.202654I$		

II.

$\boldsymbol{I_2^u = \langle -u^{14}-3u^{13}+\cdots+b+1,\ u^{14}a+u^{14}+\cdots-a-4,\ u^{15}+3u^{14}+\cdots-4u^2+1\rangle}$

(i) Arc colorings

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u^{14}+4u^{13}+24u^{12}+12u^{11}+32u^{10}-24u^9-56u^8-136u^7-172u^6-184u^5-124u^4-72u^3-8u^2+16u+10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{30} + u^{29} + \cdots + 16u + 1$
c_2, c_5	$u^{30} + u^{29} + \cdots - 6u - 1$
c_3, c_4, c_7	$(u^{15} - 3u^{14} + \cdots + 4u^2 - 1)^2$
c_8, c_{10}	$u^{30} - u^{29} + \cdots - 6u - 11$
c_9	$(u^{15} - 7u^{14} + \cdots + 4u^2 - 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{30} + 3y^{29} + \cdots - 92y + 1$
c_2, c_5	$y^{30} + 7y^{29} + \cdots - 48y + 1$
c_3, c_4, c_7	$(y^{15} + 15y^{14} + \cdots + 8y - 1)^2$
c_8, c_{10}	$y^{30} + 3y^{29} + \cdots - 1972y + 121$
c_9	$(y^{15} - y^{14} + \cdots + 8y - 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.825834 + 0.538674I$ $a = 0.428447 + 0.718077I$ $b = -0.476814 - 0.494120I$	$1.13071 - 2.72262I$	$11.6934 + 8.2204I$
$u = -0.825834 + 0.538674I$ $a = -0.131251 - 0.683941I$ $b = 0.740636 + 0.362219I$	$1.13071 - 2.72262I$	$11.6934 + 8.2204I$
$u = -0.825834 - 0.538674I$ $a = 0.428447 - 0.718077I$ $b = -0.476814 + 0.494120I$	$1.13071 + 2.72262I$	$11.6934 - 8.2204I$
$u = -0.825834 - 0.538674I$ $a = -0.131251 + 0.683941I$ $b = 0.740636 - 0.362219I$	$1.13071 + 2.72262I$	$11.6934 - 8.2204I$
$u = 0.000696 + 1.255430I$ $a = 0.900707 - 0.205837I$ $b = 1.247670 - 0.599225I$	$-1.82383 - 2.53738I$	$2.44510 + 1.72215I$
$u = 0.000696 + 1.255430I$ $a = 0.476757 + 0.994088I$ $b = -0.259040 - 1.130630I$	$-1.82383 - 2.53738I$	$2.44510 + 1.72215I$
$u = 0.000696 - 1.255430I$ $a = 0.900707 + 0.205837I$ $b = 1.247670 + 0.599225I$	$-1.82383 + 2.53738I$	$2.44510 - 1.72215I$
$u = 0.000696 - 1.255430I$ $a = 0.476757 - 0.994088I$ $b = -0.259040 + 1.130630I$	$-1.82383 + 2.53738I$	$2.44510 - 1.72215I$
$u = -0.374558 + 0.641779I$ $a = 0.471003 + 0.871968I$ $b = -0.877609 - 0.842947I$	$-1.31377 - 3.39671I$	$-3.52800 + 8.19673I$
$u = -0.374558 + 0.641779I$ $a = 0.38443 - 1.59182I$ $b = 0.736028 + 0.024323I$	$-1.31377 - 3.39671I$	$-3.52800 + 8.19673I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.374558-0.641779I$ $a=\ \ 0.471003-0.871968I$ $b=-0.877609+0.842947I$	$-1.31377+3.39671I$	$-3.52800-8.19673I$
$u=-0.374558-0.641779I$ $a=\ \ 0.38443+1.59182I$ $b=\ \ 0.736028-0.024323I$	$-1.31377+3.39671I$	$-3.52800-8.19673I$
$u=-0.678314$ $a=\ \ 1.44772$ $b=-0.327578$	1.01641	9.27190
$u=-0.678314$ $a=-0.482930$ $b=\ \ 0.982011$	1.01641	9.27190
$u=\ \ 0.100337+1.375660I$ $a=-0.268106-0.521008I$ $b=\ \ 0.27520+2.16220I$	$-3.32174+5.59550I$	$-0.66951-7.79345I$
$u=\ \ 0.100337+1.375660I$ $a=-1.57796+0.08496I$ $b=-0.689826+0.421097I$	$-3.32174+5.59550I$	$-0.66951-7.79345I$
$u=\ \ 0.100337-1.375660I$ $a=-0.268106+0.521008I$ $b=\ \ 0.27520-2.16220I$	$-3.32174-5.59550I$	$-0.66951+7.79345I$
$u=\ \ 0.100337-1.375660I$ $a=-1.57796-0.08496I$ $b=-0.689826-0.421097I$	$-3.32174-5.59550I$	$-0.66951+7.79345I$
$u=-0.15235+1.51729I$ $a=\ \ 0.516022-1.130560I$ $b=\ \ 0.789858+0.466052I$	$-8.32063-5.47678I$	$-8.29813+5.38780I$
$u=-0.15235+1.51729I$ $a=-0.252346+0.545908I$ $b=-1.63678-0.95520I$	$-8.32063-5.47678I$	$-8.29813+5.38780I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.15235 - 1.51729I$ $a = 0.516022 + 1.130560I$ $b = 0.789858 - 0.466052I$	$-8.32063 + 5.47678I$	$-8.29813 - 5.38780I$
$u = -0.15235 - 1.51729I$ $a = -0.252346 - 0.545908I$ $b = -1.63678 + 0.95520I$	$-8.32063 + 5.47678I$	$-8.29813 - 5.38780I$
$u = -0.29798 + 1.53037I$ $a = 0.439615 - 0.718620I$ $b = 1.181030 + 0.498484I$	$-5.55973 - 6.84757I$	$1.00546 + 10.27446I$
$u = -0.29798 + 1.53037I$ $a = -0.169055 + 0.804639I$ $b = -0.968761 - 0.886910I$	$-5.55973 - 6.84757I$	$1.00546 + 10.27446I$
$u = -0.29798 - 1.53037I$ $a = 0.439615 + 0.718620I$ $b = 1.181030 - 0.498484I$	$-5.55973 + 6.84757I$	$1.00546 - 10.27446I$
$u = -0.29798 - 1.53037I$ $a = -0.169055 - 0.804639I$ $b = -0.968761 + 0.886910I$	$-5.55973 + 6.84757I$	$1.00546 - 10.27446I$
$u = 0.388845 + 0.104061I$ $a = 0.40559 - 2.33647I$ $b = 0.51204 + 1.36623I$	$1.42898 + 3.92960I$	$9.71569 - 7.98755I$
$u = 0.388845 + 0.104061I$ $a = -2.10625 - 2.94990I$ $b = -0.400846 + 0.866321I$	$1.42898 + 3.92960I$	$9.71569 - 7.98755I$
$u = 0.388845 - 0.104061I$ $a = 0.40559 + 2.33647I$ $b = 0.51204 - 1.36623I$	$1.42898 - 3.92960I$	$9.71569 + 7.98755I$
$u = 0.388845 - 0.104061I$ $a = -2.10625 + 2.94990I$ $b = -0.400846 - 0.866321I$	$1.42898 - 3.92960I$	$9.71569 + 7.98755I$

III. $\boldsymbol{I^u_3 =}$
$\boldsymbol{\langle u^5+2u^4+4u^3+4u^2+b+3u+1,\ -u^7-2u^6+\cdots+a+1,\ u^8+2u^7+\cdots+2u+1\rangle}$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -3u^7-u^6-3u^5+8u^4+17u^3+19u^2+18u+5$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^8 - u^7 + 2u^6 - u^5 + 2u^4 - u^3 + 2u^2 + 1$
c_2, c_5	$u^8 + 2u^6 + u^5 + 2u^4 + u^3 + 2u^2 + u + 1$
c_3, c_4	$u^8 + 2u^7 + 6u^6 + 8u^5 + 11u^4 + 9u^3 + 7u^2 + 2u + 1$
c_7	$u^8 - 2u^7 + 6u^6 - 8u^5 + 11u^4 - 9u^3 + 7u^2 - 2u + 1$
c_8, c_{10}	$u^8 - 3u^7 + 6u^6 - 9u^5 + 12u^4 - 11u^3 + 8u^2 - 4u + 1$
c_9	$u^8 + 5u^7 + 13u^6 + 20u^5 + 22u^4 + 18u^3 + 12u^2 + 5u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^8+3y^7+6y^6+9y^5+12y^4+11y^3+8y^2+4y+1$
c_2, c_5	$y^8+4y^7+8y^6+11y^5+12y^4+9y^3+6y^2+3y+1$
c_3, c_4, c_7	$y^8+8y^7+26y^6+46y^5+55y^4+53y^3+35y^2+10y+1$
c_8, c_{10}	$y^8+3y^7+6y^6+13y^5+20y^4+11y^3+1$
c_9	$y^8+y^7+13y^6+16y^5+28y^4+30y^3+8y^2-y+1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.768546+0.720795I$ $a=\ \ 0.216551+0.549851I$ $b=-0.562759-0.266496I$	$0.48271-2.83701I$	$-5.21159+10.60912I$
$u=-0.768546-0.720795I$ $a=\ \ 0.216551-0.549851I$ $b=-0.562759+0.266496I$	$0.48271+2.83701I$	$-5.21159-10.60912I$
$u=\ \ 0.024235+1.274500I$ $a=\ \ 0.986575-0.224172I$ $b=\ \ 0.309617+1.251960I$	$-2.47121+3.78237I$	$-0.87896-6.92362I$
$u=\ \ 0.024235-1.274500I$ $a=\ \ 0.986575+0.224172I$ $b=\ \ 0.309617-1.251960I$	$-2.47121-3.78237I$	$-0.87896+6.92362I$
$u=-0.057100+0.488588I$ $a=-1.72754+0.48541I$ $b=-0.138522-0.871772I$	$0.43885-3.70343I$	$0.65225+5.99436I$
$u=-0.057100-0.488588I$ $a=-1.72754-0.48541I$ $b=-0.138522+0.871772I$	$0.43885+3.70343I$	$0.65225-5.99436I$
$u=-0.19859+1.50044I$ $a=-0.475588+0.801618I$ $b=-1.108340-0.872786I$	$-6.67501-5.79166I$	$-2.06170+5.06823I$
$u=-0.19859-1.50044I$ $a=-0.475588-0.801618I$ $b=-1.108340+0.872786I$	$-6.67501+5.79166I$	$-2.06170-5.06823I$

IV. $\boldsymbol{I_1^v = \langle a,\ b+1,\ v-1 \rangle}$

(i) Arc colorings

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -6$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$v = 1.00000$ $a = 0$ $b = -1.00000$	-1.64493	-6.00000

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$(u+1)(u^8 - u^7 + \cdots + 2u^2 + 1)(u^{23} - 2u^{22} + \cdots - 2u - 1)$ $\cdot (u^{30} + u^{29} + \cdots + 16u + 1)$
c_2, c_5	$(u+1)(u^8 + 2u^6 + \cdots + u + 1)(u^{23} - u^{22} + \cdots - u - 1)$ $\cdot (u^{30} + u^{29} + \cdots - 6u - 1)$
c_3, c_4	$u(u^8 + 2u^7 + 6u^6 + 8u^5 + 11u^4 + 9u^3 + 7u^2 + 2u + 1)$ $\cdot ((u^{15} - 3u^{14} + \cdots + 4u^2 - 1)^2)(u^{23} + 5u^{22} + \cdots - 46u - 7)$
c_7	$u(u^8 - 2u^7 + 6u^6 - 8u^5 + 11u^4 - 9u^3 + 7u^2 - 2u + 1)$ $\cdot ((u^{15} - 3u^{14} + \cdots + 4u^2 - 1)^2)(u^{23} + 5u^{22} + \cdots - 46u - 7)$
c_8, c_{10}	$(u+1)(u^8 - 3u^7 + 6u^6 - 9u^5 + 12u^4 - 11u^3 + 8u^2 - 4u + 1)$ $\cdot (u^{23} + 2u^{22} + \cdots + 14u - 1)(u^{30} - u^{29} + \cdots - 6u - 11)$
c_9	$u(u^8 + 5u^7 + 13u^6 + 20u^5 + 22u^4 + 18u^3 + 12u^2 + 5u + 1)$ $\cdot ((u^{15} - 7u^{14} + \cdots + 4u^2 - 1)^2)(u^{23} + 14u^{22} + \cdots - 43u - 7)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$(y-1)(y^8+3y^7+6y^6+9y^5+12y^4+11y^3+8y^2+4y+1)$ $\cdot (y^{23}+2y^{22}+\cdots-12y-1)(y^{30}+3y^{29}+\cdots-92y+1)$
c_2, c_5	$(y-1)(y^8+4y^7+8y^6+11y^5+12y^4+9y^3+6y^2+3y+1)$ $\cdot (y^{23}-9y^{22}+\cdots+25y-1)(y^{30}+7y^{29}+\cdots-48y+1)$
c_3, c_4, c_7	$y(y^8+8y^7+26y^6+46y^5+55y^4+53y^3+35y^2+10y+1)$ $\cdot ((y^{15}+15y^{14}+\cdots+8y-1)^2)(y^{23}+23y^{22}+\cdots+198y-49)$
c_8, c_{10}	$(y-1)(y^8+3y^7+6y^6+13y^5+20y^4+11y^3+1)$ $\cdot (y^{23}-18y^{22}+\cdots+68y-1)(y^{30}+3y^{29}+\cdots-1972y+121)$
c_9	$y(y^8+y^7+13y^6+16y^5+28y^4+30y^3+8y^2-y+1)$ $\cdot ((y^{15}-y^{14}+\cdots+8y-1)^2)(y^{23}+26y^{21}+\cdots+225y-49)$