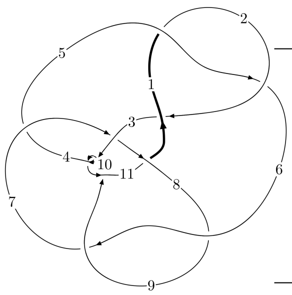
$11a_{124}$ ($K11a_{124}$)



A knot diagram[1]

Linearized knot diagam

$$\rightarrow\downarrow\rightarrow\downarrow\rightarrow\downarrow\rightarrow\downarrow\rightarrow\downarrow\rightarrow\downarrow\rightarrow\downarrow\rightarrow\downarrow\rightarrow\downarrow\rightarrow\downarrow\rightarrow\downarrow\rightarrow$$

5 1 10 7 2 9 3 6 11 4 8

Solving Sequence

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

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

$$I_1^u = \langle u^{17} - 2u^{16} + \cdots + 2b - 1,\ 8u^{18} - u^{17} + \cdots + 8a + 1,\ u^{19} - u^{18} + \cdots + 2u + 1\rangle$$
$$I_2^u = \langle -3.29428 \times 10^{43}u^{59} - 7.32537 \times 10^{43}u^{58} + \cdots + 3.61424 \times 10^{43}b - 3.73726 \times 10^{43},$$
$$-1.15786 \times 10^{44}u^{59} - 2.56717 \times 10^{44}u^{58} + \cdots + 3.61424 \times 10^{43}a - 1.16229 \times 10^{44},\ u^{60} + 3u^{59} + \cdots + 2u -$$
$$I_3^u = \langle b,\ 2a - 2u + 3,\ u^2 - u - 1\rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 81 representations.

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[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.

$$I_1^u = \langle u^{17} - 2u^{16} + \cdots + 2b - 1,\ 8u^{18} - u^{17} + \cdots + 8a + 1,\ u^{19} - u^{18} + \cdots + 2u + 1\rangle$$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u^{18} + \frac{1}{8}u^{17} + \cdots + \frac{29}{8}u - \frac{1}{8} \\ -\frac{1}{2}u^{17} + u^{16} + \cdots + \frac{5}{2}u + \frac{1}{2} \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0.812500u^{18} - 0.312500u^{17} + \cdots - 2.75000u + 0.687500 \\ u^3 - u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^{18} + \frac{5}{8}u^{17} + \cdots + \frac{9}{8}u - \frac{5}{8} \\ -\frac{1}{2}u^{17} + u^{16} + \cdots + \frac{5}{2}u + \frac{1}{2} \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} \frac{13}{16}u^{18} - \frac{5}{16}u^{17} + \cdots - \frac{11}{4}u - \frac{5}{16} \\ -u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} \frac{5}{16}u^{18} - \frac{1}{8}u^{17} + \cdots - \frac{29}{16}u + \frac{1}{2} \\ -u^4 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^3 \\ u^5 - u^3 + u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u^{18} + \frac{3}{8}u^{17} + \cdots + \frac{23}{8}u - \frac{3}{8} \\ u^5 - u^3 + u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u^{18} + \frac{3}{8}u^{17} + \cdots + \frac{23}{8}u - \frac{3}{8} \\ u^5 - u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{5}{8}u^{18} + \frac{15}{16}u^{17} + \cdots - \frac{147}{16}u - \frac{275}{16}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_5 c_{10}	$u^{19} - u^{18} + \cdots + 2u + 1$
c_2, c_9	$u^{19} + 11u^{18} + \cdots + 10u + 1$
c_4, c_{11}	$4(4u^{19} - 6u^{18} + \cdots + u + 1)$
c_6, c_8	$u^{19} + u^{18} + \cdots + 72u + 16$
c_7	$u^{19} + 5u^{18} + \cdots + 576u + 64$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_5 c_{10}	$y^{19} - 11y^{18} + \cdots + 10y - 1$
c_2, c_9	$y^{19} - 3y^{18} + \cdots + 6y - 1$
c_4, c_{11}	$16(16y^{19} - 44y^{18} + \cdots + 27y - 1)$
c_6, c_8	$y^{19} - 11y^{18} + \cdots + 5152y - 256$
c_7	$y^{19} + 3y^{18} + \cdots + 84480y - 4096$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.419051 + 0.893130I$ $a = -0.135730 - 0.103762I$ $b = -0.724967 + 1.151790I$	$2.04820 + 6.16450I$	$-8.26103 - 3.38099I$
$u = 0.419051 - 0.893130I$ $a = -0.135730 + 0.103762I$ $b = -0.724967 - 1.151790I$	$2.04820 - 6.16450I$	$-8.26103 + 3.38099I$
$u = 0.899345 + 0.246437I$ $a = 2.14777 - 1.01558I$ $b = 1.204930 + 0.354128I$	$-3.77143 - 0.86442I$	$-19.7475 + 1.3057I$
$u = 0.899345 - 0.246437I$ $a = 2.14777 + 1.01558I$ $b = 1.204930 - 0.354128I$	$-3.77143 + 0.86442I$	$-19.7475 - 1.3057I$
$u = -1.003450 + 0.392686I$ $a = -1.58170 + 0.42470I$ $b = -0.13937 + 1.76374I$	$-5.55704 + 4.23947I$	$-20.3915 - 6.1738I$
$u = -1.003450 - 0.392686I$ $a = -1.58170 - 0.42470I$ $b = -0.13937 - 1.76374I$	$-5.55704 - 4.23947I$	$-20.3915 + 6.1738I$
$u = 0.552607 + 0.734353I$ $a = -0.356653 + 0.052498I$ $b = 0.56635 - 1.31894I$	$4.59036 + 0.49883I$	$-5.13235 + 1.11737I$
$u = 0.552607 - 0.734353I$ $a = -0.356653 - 0.052498I$ $b = 0.56635 + 1.31894I$	$4.59036 - 0.49883I$	$-5.13235 - 1.11737I$
$u = 1.034010 + 0.500803I$ $a = -0.92474 + 1.69869I$ $b = -1.81071 + 0.75880I$	$-3.99870 - 8.26948I$	$-17.0118 + 10.4497I$
$u = 1.034010 - 0.500803I$ $a = -0.92474 - 1.69869I$ $b = -1.81071 - 0.75880I$	$-3.99870 + 8.26948I$	$-17.0118 - 10.4497I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.047050 + 0.609446I$ $a = 2.13795 + 0.40305I$ $b = 1.14750 - 1.52008I$	$1.58848 + 10.77560I$	$-11.1069 - 9.6699I$
$u = -1.047050 - 0.609446I$ $a = 2.13795 - 0.40305I$ $b = 1.14750 + 1.52008I$	$1.58848 - 10.77560I$	$-11.1069 + 9.6699I$
$u = -1.136920 + 0.651601I$ $a = -1.99873 - 0.44428I$ $b = -1.05260 + 1.28107I$	$-2.2580 + 17.5240I$	$-13.4299 - 10.5127I$
$u = -1.136920 - 0.651601I$ $a = -1.99873 + 0.44428I$ $b = -1.05260 - 1.28107I$	$-2.2580 - 17.5240I$	$-13.4299 + 10.5127I$
$u = 1.36120$ $a = -0.900530$ $b = -0.770557$	-10.4347	-25.7620
$u = -0.459746 + 0.391888I$ $a = -0.822946 - 0.928476I$ $b = -0.928594 + 0.046627I$	$-0.672184 - 0.228526I$	$-10.04556 + 0.04203I$
$u = -0.459746 - 0.391888I$ $a = -0.822946 + 0.928476I$ $b = -0.928594 - 0.046627I$	$-0.672184 + 0.228526I$	$-10.04556 - 0.04203I$
$u = -0.460389$ $a = -0.746543$ $b = -0.475486$	-0.745623	-13.0540
$u = 1.58350$ $a = -0.283362$ $b = -0.279027$	-10.5925	-69.4310

II.
$\boldsymbol{I_2^u = \langle -3.29\times10^{43}u^{59} - 7.33\times10^{43}u^{58} + \cdots + 3.61\times10^{43}b - 3.74\times10^{43},\ -1.16\times10^{44}u^{59} - 2.57\times10^{44}u^{58} + \cdots + 3.61\times10^{43}a - 1.16\times10^{44},\ u^{60} + 3u^{59} + \cdots + 2u + 1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}1\\u^2\end{pmatrix}$$
$$a_7 = \begin{pmatrix}3.20362u^{59} + 7.10293u^{58} + \cdots + 1.55388u + 3.21587\\0.911474u^{59} + 2.02681u^{58} + \cdots + 3.08549u + 1.03404\end{pmatrix}$$
$$a_5 = \begin{pmatrix}-2.28143u^{59} - 5.75495u^{58} + \cdots - 5.19179u - 0.442802\\-0.263750u^{59} - 0.472714u^{58} + \cdots - 0.742543u + 0.322096\end{pmatrix}$$
$$a_8 = \begin{pmatrix}2.29215u^{59} + 5.07612u^{58} + \cdots - 1.53161u + 2.18183\\0.911474u^{59} + 2.02681u^{58} + \cdots + 3.08549u + 1.03404\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-u\\-u^3 + u\end{pmatrix}$$
$$a_1 = \begin{pmatrix}0.925654u^{59} + 2.23848u^{58} + \cdots + 3.65944u - 1.78646\\-1.35234u^{59} - 3.28016u^{58} + \cdots - 2.39453u - 2.24660\end{pmatrix}$$
$$a_2 = \begin{pmatrix}1.46589u^{59} + 5.35398u^{58} + \cdots + 3.78505u + 2.43307\\-0.363163u^{59} - 0.635073u^{58} + \cdots - 1.17134u + 0.200966\end{pmatrix}$$
$$a_9 = \begin{pmatrix}u^3\\u^5 - u^3 + u\end{pmatrix}$$
$$a_6 = \begin{pmatrix}2.89417u^{59} + 6.43628u^{58} + \cdots + 1.32225u + 2.63687\\u^5 - u^3 + u\end{pmatrix}$$
$$a_6 = \begin{pmatrix}2.89417u^{59} + 6.43628u^{58} + \cdots + 1.32225u + 2.63687\\u^5 - u^3 + u\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -2.48951u^{59} - 4.72262u^{58} + \cdots - 4.88635u - 16.4633$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_5 c_{10}	$u^{60} + 3u^{59} + \cdots + 2u + 1$
c_2, c_9	$u^{60} + 25u^{59} + \cdots - 8u^2 + 1$
c_4, c_{11}	$u^{60} - 9u^{59} + \cdots + 2u + 49$
c_6, c_8	$(u^{30} - 2u^{29} + \cdots - 4u^2 + 1)^2$
c_7	$(u^{30} - 2u^{29} + \cdots + 2u + 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_5 c_{10}	$y^{60} - 25y^{59} + \cdots - 8y^2 + 1$
c_2, c_9	$y^{60} + 19y^{59} + \cdots - 16y + 1$
c_4, c_{11}	$y^{60} + 15y^{59} + \cdots + 225396y + 2401$
c_6, c_8	$(y^{30} - 18y^{29} + \cdots - 8y + 1)^2$
c_7	$(y^{30} + 6y^{29} + \cdots - 20y + 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.436655 + 0.898161I$ $a = 0.099230 - 0.147670I$ $b = 0.90502 + 1.20796I$	$-0.13306 - 11.82350I$	$-11.00000 + 6.87881I$
$u = -0.436655 - 0.898161I$ $a = 0.099230 + 0.147670I$ $b = 0.90502 - 1.20796I$	$-0.13306 + 11.82350I$	$-11.00000 - 6.87881I$
$u = 0.938385 + 0.379407I$ $a = 1.68614 - 0.74769I$ $b = 0.441181 + 0.955338I$	$-3.09259 - 1.44484I$	$-13.23226 + 3.70712I$
$u = 0.938385 - 0.379407I$ $a = 1.68614 + 0.74769I$ $b = 0.441181 - 0.955338I$	$-3.09259 + 1.44484I$	$-13.23226 - 3.70712I$
$u = -0.398222 + 0.946146I$ $a = 0.0703469 - 0.0182926I$ $b = 0.704169 + 0.741434I$	$-3.92001 - 3.29506I$	$-14.4988 + 4.3495I$
$u = -0.398222 - 0.946146I$ $a = 0.0703469 + 0.0182926I$ $b = 0.704169 - 0.741434I$	$-3.92001 + 3.29506I$	$-14.4988 - 4.3495I$
$u = 0.892854 + 0.516085I$ $a = -8.30139 + 2.16305I$ $b = -0.231045$	-1.58362	$-80.9296 + 0.I$
$u = 0.892854 - 0.516085I$ $a = -8.30139 - 2.16305I$ $b = -0.231045$	-1.58362	$-80.9296 + 0.I$
$u = -0.984616 + 0.331650I$ $a = -2.35527 - 0.33318I$ $b = -1.04495 + 1.40324I$	$-5.12713 - 2.00252I$	$-19.8433 + 2.5113I$
$u = -0.984616 - 0.331650I$ $a = -2.35527 + 0.33318I$ $b = -1.04495 - 1.40324I$	$-5.12713 + 2.00252I$	$-19.8433 - 2.5113I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.650550 + 0.812563I$ $a = -0.222812 + 0.168392I$ $b = -0.070411 - 0.978282I$	$3.50080 - 2.14029I$	$-5.17623 + 3.82275I$
$u = 0.650550 - 0.812563I$ $a = -0.222812 - 0.168392I$ $b = -0.070411 + 0.978282I$	$3.50080 + 2.14029I$	$-5.17623 - 3.82275I$
$u = -0.936320 + 0.528594I$ $a = 2.49741 + 1.41081I$ $b = 0.562357 + 0.083868I$	$-1.14510 + 4.17705I$	$-16.5884 - 2.8209I$
$u = -0.936320 - 0.528594I$ $a = 2.49741 - 1.41081I$ $b = 0.562357 - 0.083868I$	$-1.14510 - 4.17705I$	$-16.5884 + 2.8209I$
$u = 0.919545 + 0.051720I$ $a = 1.39527 - 1.59972I$ $b = 1.129730 - 0.530819I$	$-1.66693 + 4.72265I$	$-14.9294 - 5.7699I$
$u = 0.919545 - 0.051720I$ $a = 1.39527 + 1.59972I$ $b = 1.129730 + 0.530819I$	$-1.66693 - 4.72265I$	$-14.9294 + 5.7699I$
$u = -0.636488 + 0.889069I$ $a = 0.162077 + 0.177638I$ $b = 0.405721 - 0.886114I$	$1.01444 + 7.41192I$	$-11.0000 - 9.0404I$
$u = -0.636488 - 0.889069I$ $a = 0.162077 - 0.177638I$ $b = 0.405721 + 0.886114I$	$1.01444 - 7.41192I$	$-11.0000 + 9.0404I$
$u = 0.750944 + 0.483602I$ $a = 2.17802 + 2.09569I$ $b = 0.562357 - 0.083868I$	$-1.14510 - 4.17705I$	$-16.5884 + 2.8209I$
$u = 0.750944 - 0.483602I$ $a = 2.17802 - 2.09569I$ $b = 0.562357 + 0.083868I$	$-1.14510 + 4.17705I$	$-16.5884 - 2.8209I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.519876 + 0.720950I$ $a = 0.440387 - 0.033998I$ $b = -0.84652 - 1.38646I$	$3.14940 - 5.67522I$	$-7.89041 + 4.45785I$
$u = -0.519876 - 0.720950I$ $a = 0.440387 + 0.033998I$ $b = -0.84652 + 1.38646I$	$3.14940 + 5.67522I$	$-7.89041 - 4.45785I$
$u = 1.017570 + 0.457794I$ $a = 0.084372 + 1.203970I$ $b = -1.04495 + 1.40324I$	$-5.12713 - 2.00252I$	$-19.8433 + 0.I$
$u = 1.017570 - 0.457794I$ $a = 0.084372 - 1.203970I$ $b = -1.04495 - 1.40324I$	$-5.12713 + 2.00252I$	$-19.8433 + 0.I$
$u = -1.002750 + 0.506811I$ $a = 1.06264 + 1.11423I$ $b = 1.239150 + 0.487592I$	$-2.12597 + 4.23565I$	$-11.00000 + 0.I$
$u = -1.002750 - 0.506811I$ $a = 1.06264 - 1.11423I$ $b = 1.239150 - 0.487592I$	$-2.12597 - 4.23565I$	$-11.00000 + 0.I$
$u = 0.329797 + 0.800824I$ $a = -0.234010 + 0.120107I$ $b = -0.070411 + 0.978282I$	$3.50080 + 2.14029I$	$-5.17623 - 3.82275I$
$u = 0.329797 - 0.800824I$ $a = -0.234010 - 0.120107I$ $b = -0.070411 - 0.978282I$	$3.50080 - 2.14029I$	$-5.17623 + 3.82275I$
$u = -1.004570 + 0.573546I$ $a = 1.55156 + 0.95069I$ $b = 1.129730 - 0.530819I$	$-1.66693 + 4.72265I$	0
$u = -1.004570 - 0.573546I$ $a = 1.55156 - 0.95069I$ $b = 1.129730 + 0.530819I$	$-1.66693 - 4.72265I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.690400+0.444793I$ $a=-1.012660+0.803393I$ $b=-0.603977$	-0.361516	$-10.81395+0.I$
$u=-0.690400-0.444793I$ $a=-1.012660-0.803393I$ $b=-0.603977$	-0.361516	$-10.81395+0.I$
$u=-0.618191+0.540303I$ $a=-0.281188-0.010801I$ $b=-0.667178-0.364020I$	$-0.462439-0.119450I$	$-11.28349+0.62863I$
$u=-0.618191-0.540303I$ $a=-0.281188+0.010801I$ $b=-0.667178+0.364020I$	$-0.462439+0.119450I$	$-11.28349-0.62863I$
$u=0.985228+0.669318I$ $a=-1.058260+0.114866I$ $b=-0.228079-0.908946I$	$2.48757-3.39736I$	0
$u=0.985228-0.669318I$ $a=-1.058260-0.114866I$ $b=-0.228079+0.908946I$	$2.48757+3.39736I$	0
$u=-0.789155+0.080621I$ $a=-0.94378+1.09560I$ $b=-0.667178+0.364020I$	$-0.462439+0.119450I$	$-11.28349-0.62863I$
$u=-0.789155-0.080621I$ $a=-0.94378-1.09560I$ $b=-0.667178-0.364020I$	$-0.462439-0.119450I$	$-11.28349+0.62863I$
$u=1.035610+0.621202I$ $a=-1.87368+0.26667I$ $b=-0.84652-1.38646I$	$3.14940-5.67522I$	0
$u=1.035610-0.621202I$ $a=-1.87368-0.26667I$ $b=-0.84652+1.38646I$	$3.14940+5.67522I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.343048 + 0.696449I$ $a = 0.281786 + 0.291123I$ $b = -0.228079 + 0.908946I$	$2.48757 + 3.39736I$	$-6.14839 - 2.65836I$
$u = -0.343048 - 0.696449I$ $a = 0.281786 - 0.291123I$ $b = -0.228079 - 0.908946I$	$2.48757 - 3.39736I$	$-6.14839 + 2.65836I$
$u = 1.265290 + 0.064635I$ $a = -1.17958 + 1.04775I$ $b = -0.944732 + 0.854118I$	$-6.23866 + 9.10516I$	0
$u = 1.265290 - 0.064635I$ $a = -1.17958 - 1.04775I$ $b = -0.944732 - 0.854118I$	$-6.23866 - 9.10516I$	0
$u = -0.998856 + 0.783376I$ $a = 0.501826 - 0.219673I$ $b = -0.167947 - 0.687514I$	$-0.072177 - 1.332500I$	0
$u = -0.998856 - 0.783376I$ $a = 0.501826 + 0.219673I$ $b = -0.167947 + 0.687514I$	$-0.072177 + 1.332500I$	0
$u = -1.277600 + 0.094427I$ $a = 0.865094 + 0.946801I$ $b = 0.704169 + 0.741434I$	$-3.92001 - 3.29506I$	0
$u = -1.277600 - 0.094427I$ $a = 0.865094 - 0.946801I$ $b = 0.704169 - 0.741434I$	$-3.92001 + 3.29506I$	0
$u = -1.191580 + 0.532179I$ $a = -0.825176 + 0.590327I$ $b = -0.167947 + 0.687514I$	$-0.072177 + 1.332500I$	0
$u = -1.191580 - 0.532179I$ $a = -0.825176 - 0.590327I$ $b = -0.167947 - 0.687514I$	$-0.072177 - 1.332500I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.165050 + 0.599287I$ $a = 1.281030 + 0.306017I$ $b = 0.405721 + 0.886114I$	$1.01444 - 7.41192I$	0
$u = 1.165050 - 0.599287I$ $a = 1.281030 - 0.306017I$ $b = 0.405721 - 0.886114I$	$1.01444 + 7.41192I$	0
$u = 1.140590 + 0.644966I$ $a = 1.87323 - 0.27645I$ $b = 0.90502 + 1.20796I$	$-0.13306 - 11.82350I$	0
$u = 1.140590 - 0.644966I$ $a = 1.87323 + 0.27645I$ $b = 0.90502 - 1.20796I$	$-0.13306 + 11.82350I$	0
$u = -1.159760 + 0.652820I$ $a = -1.44051 - 0.42878I$ $b = -0.944732 + 0.854118I$	$-6.23866 + 9.10516I$	0
$u = -1.159760 - 0.652820I$ $a = -1.44051 + 0.42878I$ $b = -0.944732 - 0.854118I$	$-6.23866 - 9.10516I$	0
$u = 0.296291 + 0.465226I$ $a = 0.28682 - 1.74341I$ $b = 1.239150 + 0.487592I$	$-2.12597 + 4.23565I$	$-12.76145 - 5.43945I$
$u = 0.296291 - 0.465226I$ $a = 0.28682 + 1.74341I$ $b = 1.239150 - 0.487592I$	$-2.12597 - 4.23565I$	$-12.76145 + 5.43945I$
$u = 0.100373 + 0.382494I$ $a = 0.41107 - 2.93021I$ $b = 0.441181 + 0.955338I$	$-3.09259 - 1.44484I$	$-13.23226 + 3.70712I$
$u = 0.100373 - 0.382494I$ $a = 0.41107 + 2.93021I$ $b = 0.441181 - 0.955338I$	$-3.09259 + 1.44484I$	$-13.23226 - 3.70712I$

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 30u + \frac{21}{4}$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_5 c_{10}	$y^2 - 3y + 1$
c_2, c_9	$y^2 - 7y + 1$
c_4, c_{11}	$16(16y^2 - 12y + 1)$
c_6, c_8	$(y-1)^2$
c_7	y^2

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.618034$ $a = -2.11803$ $b = 0$	-2.63189	-13.2910
$u = 1.61803$ $a = 0.118034$ $b = 0$	-10.5276	53.7910

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_{10}	$(u^2+u-1)(u^{19}-u^{18}+\cdots+2u+1)(u^{60}+3u^{59}+\cdots+2u+1)$
c_2	$(u^2+3u+1)(u^{19}+11u^{18}+\cdots+10u+1)(u^{60}+25u^{59}+\cdots-8u^2+1)$
c_3, c_5	$(u^2-u-1)(u^{19}-u^{18}+\cdots+2u+1)(u^{60}+3u^{59}+\cdots+2u+1)$
c_4	$16(4u^2-2u-1)(4u^{19}-6u^{18}+\cdots+u+1)(u^{60}-9u^{59}+\cdots+2u+49)$
c_6	$((u-1)^2)(u^{19}+u^{18}+\cdots+72u+16)(u^{30}-2u^{29}+\cdots-4u^2+1)^2$
c_7	$u^2(u^{19}+5u^{18}+\cdots+576u+64)(u^{30}-2u^{29}+\cdots+2u+1)^2$
c_8	$((u+1)^2)(u^{19}+u^{18}+\cdots+72u+16)(u^{30}-2u^{29}+\cdots-4u^2+1)^2$
c_9	$(u^2-3u+1)(u^{19}+11u^{18}+\cdots+10u+1)(u^{60}+25u^{59}+\cdots-8u^2+1)$
c_{11}	$16(4u^2+2u-1)(4u^{19}-6u^{18}+\cdots+u+1)(u^{60}-9u^{59}+\cdots+2u+49)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_5 c_{10}	$(y^2 - 3y + 1)(y^{19} - 11y^{18} + \cdots + 10y - 1)(y^{60} - 25y^{59} + \cdots - 8y^2 + 1)$
c_2, c_9	$(y^2 - 7y + 1)(y^{19} - 3y^{18} + \cdots + 6y - 1)(y^{60} + 19y^{59} + \cdots - 16y + 1)$
c_4, c_{11}	$256(16y^2 - 12y + 1)(16y^{19} - 44y^{18} + \cdots + 27y - 1)$ $\cdot (y^{60} + 15y^{59} + \cdots + 225396y + 2401)$
c_6, c_8	$((y-1)^2)(y^{19} - 11y^{18} + \cdots + 5152y - 256)$ $\cdot (y^{30} - 18y^{29} + \cdots - 8y + 1)^2$
c_7	$y^2(y^{19} + 3y^{18} + \cdots + 84480y - 4096)(y^{30} + 6y^{29} + \cdots - 20y + 1)^2$