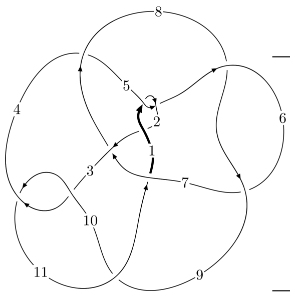
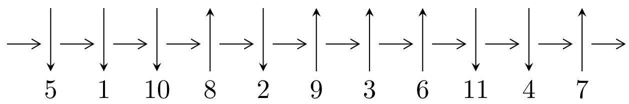
$11a_{126}$ $(K11a_{126})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -3u^{17} + 2u^{16} + \cdots + 8b - 8,\ -7u^{17} - 2u^{16} + \cdots + 8a - 20,\ u^{18} + u^{17} + \cdots + 3u + 1 \rangle$$

$$I_2^u = \langle -2.20753 \times 10^{40} u^{55} + 6.11690 \times 10^{40} u^{54} + \cdots + 4.92510 \times 10^{40} b - 2.71302 \times 10^{40},$$
$$1.18198 \times 10^{40} u^{55} - 2.66851 \times 10^{40} u^{54} + \cdots + 4.92510 \times 10^{40} a - 1.69808 \times 10^{41},\ u^{56} - 3u^{55} + \cdots - 2u + 1$$

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

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 76 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. $\boldsymbol{I_1^u =}$
$\boldsymbol{\langle -3u^{17}+2u^{16}+\cdots+8b-8,\ -7u^{17}-2u^{16}+\cdots+8a-20,\ u^{18}+u^{17}+\cdots+3u+1\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} \frac{7}{8}u^{17} + \frac{1}{4}u^{16} + \cdots - \frac{15}{8}u + \frac{5}{2} \\ \frac{3}{8}u^{17} - \frac{1}{4}u^{16} + \cdots - \frac{3}{8}u + 1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -\frac{1}{2}u^{17} - \frac{3}{16}u^{16} + \cdots + \frac{7}{8}u - \frac{13}{16} \\ -\frac{1}{2}u^{17} - \frac{3}{16}u^{16} + \cdots - \frac{1}{8}u - \frac{13}{16} \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} \frac{3}{8}u^{17} + \frac{1}{4}u^{16} + \cdots - \frac{11}{8}u + \frac{5}{2} \\ -\frac{1}{8}u^{17} - \frac{1}{4}u^{16} + \cdots + \frac{1}{8}u + 1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -\frac{1}{2}u^{17} - \frac{3}{16}u^{16} + \cdots + \frac{7}{8}u - \frac{29}{16} \\ -\frac{1}{2}u^{17} - \frac{3}{16}u^{16} + \cdots + \frac{7}{8}u - \frac{13}{16} \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -0.187500u^{17} - 0.0625000u^{16} + \cdots + 0.562500u - 0.312500 \\ -0.187500u^{17} - 0.0625000u^{16} + \cdots + 0.562500u - 0.312500 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^2 + 1 \\ -u^4 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} \frac{5}{8}u^{17} + \frac{1}{4}u^{16} + \cdots - \frac{5}{8}u + 2 \\ \frac{5}{8}u^{17} + \frac{1}{4}u^{16} + \cdots - \frac{5}{8}u + 1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} \frac{5}{8}u^{17} + \frac{1}{4}u^{16} + \cdots - \frac{5}{8}u + 2 \\ \frac{5}{8}u^{17} + \frac{1}{4}u^{16} + \cdots - \frac{5}{8}u + 1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{37}{8}u^{17} + \frac{49}{16}u^{16} - 19u^{15} - \frac{161}{16}u^{14} + \frac{175}{4}u^{13} + \frac{625}{16}u^{12} - \frac{1021}{16}u^{11} - 79u^{10} + \frac{489}{8}u^9 + \frac{1847}{16}u^8 - \frac{101}{4}u^7 - \frac{481}{4}u^6 - \frac{63}{8}u^5 + \frac{313}{4}u^4 + \frac{403}{16}u^3 - \frac{275}{8}u^2 - \frac{77}{4}u + \frac{115}{16}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_5 c_{10}	$u^{18} - u^{17} + \cdots - 3u + 1$
c_2, c_9	$u^{18} + 9u^{17} + \cdots + 19u + 1$
c_4, c_{11}	$4(4u^{18} - 2u^{17} + \cdots - 10u^2 + 1)$
c_6, c_8	$u^{18} - u^{17} + \cdots + 24u - 16$
c_7	$u^{18} + 5u^{17} + \cdots - 384u - 64$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_5 c_{10}	$y^{18} - 9y^{17} + \cdots - 19y + 1$
c_2, c_9	$y^{18} + 3y^{17} + \cdots - 159y + 1$
c_4, c_{11}	$16(16y^{18} - 140y^{17} + \cdots - 20y + 1)$
c_6, c_8	$y^{18} - 13y^{17} + \cdots + 736y + 256$
c_7	$y^{18} - 3y^{17} + \cdots - 104960y + 4096$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.797207 + 0.665416I$ $a = 1.148400 - 0.556457I$ $b = 1.65807 + 1.34345I$	$5.71206 - 2.89420I$	$7.03507 + 3.97344I$
$u = 0.797207 - 0.665416I$ $a = 1.148400 + 0.556457I$ $b = 1.65807 - 1.34345I$	$5.71206 + 2.89420I$	$7.03507 - 3.97344I$
$u = -0.544045 + 0.930838I$ $a = -1.159100 + 0.772519I$ $b = 0.041004 + 1.409830I$	$8.53344 - 5.24003I$	$5.37319 + 1.81946I$
$u = -0.544045 - 0.930838I$ $a = -1.159100 - 0.772519I$ $b = 0.041004 - 1.409830I$	$8.53344 + 5.24003I$	$5.37319 - 1.81946I$
$u = -0.615364 + 0.642798I$ $a = 1.64986 - 0.81674I$ $b = 0.16727 - 1.68913I$	$2.54047 - 0.51745I$	$4.03732 + 0.45208I$
$u = -0.615364 - 0.642798I$ $a = 1.64986 + 0.81674I$ $b = 0.16727 + 1.68913I$	$2.54047 + 0.51745I$	$4.03732 - 0.45208I$
$u = -0.910004 + 0.658534I$ $a = -1.06248 + 1.71896I$ $b = 0.86916 + 1.64057I$	$5.01031 + 7.38290I$	$4.96124 - 9.00655I$
$u = -0.910004 - 0.658534I$ $a = -1.06248 - 1.71896I$ $b = 0.86916 - 1.64057I$	$5.01031 - 7.38290I$	$4.96124 + 9.00655I$
$u = -1.122640 + 0.135484I$ $a = -0.185979 - 0.361024I$ $b = -0.351910 + 0.563133I$	$-6.23953 + 2.23591I$	$-10.20911 - 3.70336I$
$u = -1.122640 - 0.135484I$ $a = -0.185979 + 0.361024I$ $b = -0.351910 - 0.563133I$	$-6.23953 - 2.23591I$	$-10.20911 + 3.70336I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.015940 + 0.632188I$ $a = -1.96168 - 0.59613I$ $b = -1.46082 - 2.17214I$	$0.14328 - 10.60240I$	$-0.95783 + 10.15251I$
$u = 1.015940 - 0.632188I$ $a = -1.96168 + 0.59613I$ $b = -1.46082 + 2.17214I$	$0.14328 + 10.60240I$	$-0.95783 - 10.15251I$
$u = 0.733103 + 0.109565I$ $a = 0.931581 + 0.476227I$ $b = 0.056089 + 0.202732I$	$-1.331030 - 0.143749I$	$-7.24003 - 0.28764I$
$u = 0.733103 - 0.109565I$ $a = 0.931581 - 0.476227I$ $b = 0.056089 - 0.202732I$	$-1.331030 + 0.143749I$	$-7.24003 + 0.28764I$
$u = 1.107060 + 0.702923I$ $a = 1.64797 + 0.90506I$ $b = 1.31912 + 2.15841I$	$5.0646 - 17.2092I$	$0.64160 + 10.07684I$
$u = 1.107060 - 0.702923I$ $a = 1.64797 - 0.90506I$ $b = 1.31912 - 2.15841I$	$5.0646 + 17.2092I$	$0.64160 - 10.07684I$
$u = -1.64128$ $a = -0.142074$ $b = -0.00357888$	-7.18406	75.4440
$u = -0.281225$ $a = 2.62494$ $b = 0.907601$	1.21562	9.77320

II.

$\boldsymbol{I_2^u = \langle -2.21\times10^{40}u^{55}+6.12\times10^{40}u^{54}+\cdots+4.93\times10^{40}b-2.71\times10^{40},\ 1.18\times10^{40}u^{55}-2.67\times10^{40}u^{54}+\cdots+4.93\times10^{40}a-1.70\times10^{41},\ u^{56}-3u^{55}+\cdots-2u+1\rangle}$

(i) Arc colorings

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

$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.239991u^{55} + 0.541817u^{54} + \cdots - 0.125309u + 3.44782 \\ 0.448220u^{55} - 1.24198u^{54} + \cdots + 1.17141u + 0.550856 \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} -0.465735u^{55} - 1.13841u^{54} + \cdots - 2.39038u + 0.0140502 \\ -1.87437u^{55} + 2.39826u^{54} + \cdots - 5.31879u + 2.17450 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.279271u^{55} + 0.501862u^{54} + \cdots - 0.251857u + 3.16698 \\ 0.408940u^{55} - 1.28194u^{54} + \cdots + 1.04486u + 0.270025 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -1.72196u^{55} + 4.91727u^{54} + \cdots + 4.36565u + 2.02742 \\ -0.451888u^{55} + 1.12281u^{54} + \cdots + 2.00233u - 0.382100 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1.61789u^{55} - 6.35830u^{54} + \cdots + 4.65412u - 4.14564 \\ -0.947869u^{55} + 0.758996u^{54} + \cdots - 1.23143u + 1.01243 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^2 + 1 \\ -u^4 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.561838u^{55} - 1.68667u^{54} + \cdots + 1.45064u + 1.21164 \\ 0.561838u^{55} - 1.68667u^{54} + \cdots + 1.45064u + 0.211643 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.561838u^{55} - 1.68667u^{54} + \cdots + 1.45064u + 1.21164 \\ 0.561838u^{55} - 1.68667u^{54} + \cdots + 1.45064u + 0.211643 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 5.79720u^{55} - 16.0245u^{54} + \cdots + 9.31856u - 11.3670$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_5 c_{10}	$u^{56} + 3u^{55} + \cdots + 2u + 1$
c_2, c_9	$u^{56} + 21u^{55} + \cdots - 26u^2 + 1$
c_4, c_{11}	$u^{56} - 7u^{55} + \cdots - 45726u + 21533$
c_6, c_8	$(u^{28} + 2u^{27} + \cdots - 10u + 1)^2$
c_7	$(u^{28} - 2u^{27} + \cdots - 4u + 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_5 c_{10}	$y^{56} - 21y^{55} + \cdots - 26y^2 + 1$
c_2, c_9	$y^{56} + 27y^{55} + \cdots - 52y + 1$
c_4, c_{11}	$y^{56} - 29y^{55} + \cdots - 2262183624y + 463670089$
c_6, c_8	$(y^{28} - 22y^{27} + \cdots - 66y + 1)^2$
c_7	$(y^{28} - 6y^{27} + \cdots - 30y + 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.971251 + 0.124804I$ $a = 0.196918 + 0.527084I$ $b = -0.420119 - 0.173872I$	$-1.74771 - 0.16605I$	$-4.99428 + 0.74621I$
$u = 0.971251 - 0.124804I$ $a = 0.196918 - 0.527084I$ $b = -0.420119 + 0.173872I$	$-1.74771 + 0.16605I$	$-4.99428 - 0.74621I$
$u = -0.773544 + 0.668324I$ $a = 1.50476 + 0.30304I$ $b = 1.58290 - 1.72976I$	$5.42444 - 2.23797I$	$6.28915 + 2.63972I$
$u = -0.773544 - 0.668324I$ $a = 1.50476 - 0.30304I$ $b = 1.58290 + 1.72976I$	$5.42444 + 2.23797I$	$6.28915 - 2.63972I$
$u = -1.024720 + 0.056181I$ $a = -0.040496 - 0.724145I$ $b = -0.742982 + 0.278795I$	$-3.40803 - 4.57637I$	$-7.04537 + 4.19623I$
$u = -1.024720 - 0.056181I$ $a = -0.040496 + 0.724145I$ $b = -0.742982 - 0.278795I$	$-3.40803 + 4.57637I$	$-7.04537 - 4.19623I$
$u = 0.849827 + 0.601454I$ $a = -0.730485 + 0.090678I$ $b = -0.075733 + 0.721488I$	$3.04440 - 2.37626I$	$1.15007 + 2.61756I$
$u = 0.849827 - 0.601454I$ $a = -0.730485 - 0.090678I$ $b = -0.075733 - 0.721488I$	$3.04440 + 2.37626I$	$1.15007 - 2.61756I$
$u = -0.821914 + 0.476486I$ $a = 6.19769 - 1.43982I$ $b = 5.92604 - 1.59730I$	1.56538	$38.9891 + 0.I$
$u = -0.821914 - 0.476486I$ $a = 6.19769 + 1.43982I$ $b = 5.92604 + 1.59730I$	1.56538	$38.9891 + 0.I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.544902 + 0.917878I$ $a = -1.21633 - 0.96886I$ $b = 0.16628 - 1.50273I$	$6.78989 + 11.25030I$	$2.95425 - 5.94443I$
$u = 0.544902 - 0.917878I$ $a = -1.21633 + 0.96886I$ $b = 0.16628 + 1.50273I$	$6.78989 - 11.25030I$	$2.95425 + 5.94443I$
$u = 0.929945 + 0.539982I$ $a = 0.102402 - 1.353460I$ $b = 0.38820 - 1.51941I$	0.178243	0
$u = 0.929945 - 0.539982I$ $a = 0.102402 + 1.353460I$ $b = 0.38820 + 1.51941I$	0.178243	0
$u = 0.461286 + 0.983317I$ $a = -0.709636 + 0.194115I$ $b = -0.612442 - 0.750374I$	$6.16221 - 6.23957I$	$5.68801 + 6.28604I$
$u = 0.461286 - 0.983317I$ $a = -0.709636 - 0.194115I$ $b = -0.612442 + 0.750374I$	$6.16221 + 6.23957I$	$5.68801 - 6.28604I$
$u = -0.930933 + 0.567086I$ $a = -1.55560 + 1.76247I$ $b = -0.95260 + 2.02285I$	$1.02186 + 4.25611I$	$0. - 3.95647I$
$u = -0.930933 - 0.567086I$ $a = -1.55560 - 1.76247I$ $b = -0.95260 - 2.02285I$	$1.02186 - 4.25611I$	$0. + 3.95647I$
$u = -0.504805 + 0.985832I$ $a = -0.824183 + 0.094134I$ $b = -0.391866 + 0.938403I$	8.10737	$8.15514 + 0.I$
$u = -0.504805 - 0.985832I$ $a = -0.824183 - 0.094134I$ $b = -0.391866 - 0.938403I$	8.10737	$8.15514 + 0.I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.891535 + 0.658098I$ $a = -0.72629 - 1.58505I$ $b = 1.08695 - 1.10116I$	$5.42444 - 2.23797I$	$6.28915 + 0.I$
$u = 0.891535 - 0.658098I$ $a = -0.72629 + 1.58505I$ $b = 1.08695 + 1.10116I$	$5.42444 + 2.23797I$	$6.28915 + 0.I$
$u = -0.708258 + 0.542009I$ $a = 1.80341 - 0.64145I$ $b = 1.19190 - 1.35173I$	$1.79480 + 0.25822I$	$3.59957 - 1.08985I$
$u = -0.708258 - 0.542009I$ $a = 1.80341 + 0.64145I$ $b = 1.19190 + 1.35173I$	$1.79480 - 0.25822I$	$3.59957 + 1.08985I$
$u = 0.580619 + 0.676764I$ $a = 1.54612 + 1.05830I$ $b = -0.28201 + 1.69623I$	$1.40869 + 5.50421I$	$1.41360 - 5.52444I$
$u = 0.580619 - 0.676764I$ $a = 1.54612 - 1.05830I$ $b = -0.28201 - 1.69623I$	$1.40869 - 5.50421I$	$1.41360 + 5.52444I$
$u = -0.951803 + 0.571144I$ $a = -1.18336 + 1.45080I$ $b = -0.60332 + 1.88607I$	$1.02228 + 4.28090I$	$0. - 5.50918I$
$u = -0.951803 - 0.571144I$ $a = -1.18336 - 1.45080I$ $b = -0.60332 - 1.88607I$	$1.02228 - 4.28090I$	$0. + 5.50918I$
$u = 0.592057 + 0.963561I$ $a = -0.611605 - 0.687945I$ $b = 0.160465 - 0.986501I$	$1.38725 + 3.08785I$	0
$u = 0.592057 - 0.963561I$ $a = -0.611605 + 0.687945I$ $b = 0.160465 + 0.986501I$	$1.38725 - 3.08785I$	0

Solutions to I_2^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.999541+0.623144I$ $a=-1.77554+0.83370I$ $b=-1.08912+2.12886I$	$1.40869+5.50421I$	0
$u=-0.999541-0.623144I$ $a=-1.77554-0.83370I$ $b=-1.08912-2.12886I$	$1.40869-5.50421I$	0
$u=\ \ 0.739937+0.344084I$ $a=\ \ 2.37470-1.34280I$ $b=\ \ 1.53542-1.08705I$	$1.02186-4.25611I$	$0.62399+3.95647I$
$u=\ \ 0.739937-0.344084I$ $a=\ \ 2.37470+1.34280I$ $b=\ \ 1.53542+1.08705I$	$1.02186+4.25611I$	$0.62399-3.95647I$
$u=\ \ 1.039180+0.588423I$ $a=-1.293610-0.288235I$ $b=-1.25047-1.33963I$	$-3.40803-4.57637I$	0
$u=\ \ 1.039180-0.588423I$ $a=-1.293610+0.288235I$ $b=-1.25047+1.33963I$	$-3.40803+4.57637I$	0
$u=-1.264100+0.078163I$ $a=-0.347630-0.142558I$ $b=\ \ 0.253429+0.570123I$	$-0.19607+9.25422I$	0
$u=-1.264100-0.078163I$ $a=-0.347630+0.142558I$ $b=\ \ 0.253429-0.570123I$	$-0.19607-9.25422I$	0
$u=\ \ 0.411787+0.603762I$ $a=\ \ 0.922770+0.631966I$ $b=-0.328497+0.626270I$	$-1.74771-0.16605I$	$-4.99428+0.74621I$
$u=\ \ 0.411787-0.603762I$ $a=\ \ 0.922770-0.631966I$ $b=-0.328497-0.626270I$	$-1.74771+0.16605I$	$-4.99428-0.74621I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.573487 + 0.416145I$ $a = 2.00076 - 1.22922I$ $b = 1.154960 - 0.470757I$	$1.02228 - 4.28090I$	$0.77729 + 5.50918I$
$u = 0.573487 - 0.416145I$ $a = 2.00076 + 1.22922I$ $b = 1.154960 + 0.470757I$	$1.02228 + 4.28090I$	$0.77729 - 5.50918I$
$u = 1.304480 + 0.084655I$ $a = -0.307054 + 0.104503I$ $b = 0.233400 - 0.365360I$	$1.38725 - 3.08785I$	0
$u = 1.304480 - 0.084655I$ $a = -0.307054 - 0.104503I$ $b = 0.233400 + 0.365360I$	$1.38725 + 3.08785I$	0
$u = -1.111330 + 0.708054I$ $a = 1.46803 - 0.91270I$ $b = 1.07109 - 2.04577I$	$6.78989 + 11.25030I$	0
$u = -1.111330 - 0.708054I$ $a = 1.46803 + 0.91270I$ $b = 1.07109 + 2.04577I$	$6.78989 - 11.25030I$	0
$u = 1.098310 + 0.729770I$ $a = 1.297130 + 0.467739I$ $b = 1.14041 + 1.34935I$	$-0.19607 - 9.25422I$	0
$u = 1.098310 - 0.729770I$ $a = 1.297130 - 0.467739I$ $b = 1.14041 - 1.34935I$	$-0.19607 + 9.25422I$	0
$u = -1.142900 + 0.733018I$ $a = 0.775534 - 0.735878I$ $b = 0.307204 - 1.333830I$	$6.16221 + 6.23957I$	0
$u = -1.142900 - 0.733018I$ $a = 0.775534 + 0.735878I$ $b = 0.307204 + 1.333830I$	$6.16221 - 6.23957I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.188260 + 0.731413I$ $a = 0.389233 + 0.645022I$ $b = -0.086689 + 0.937967I$	3.95861	0
$u = 1.188260 - 0.731413I$ $a = 0.389233 - 0.645022I$ $b = -0.086689 - 0.937967I$	3.95861	0
$u = -0.400300 + 0.307611I$ $a = 2.53207 + 0.99917I$ $b = 1.040020 + 0.281329I$	$1.79480 - 0.25822I$	$3.59957 + 1.08985I$
$u = -0.400300 - 0.307611I$ $a = 2.53207 - 0.99917I$ $b = 1.040020 - 0.281329I$	$1.79480 + 0.25822I$	$3.59957 - 1.08985I$
$u = -0.042716 + 0.358832I$ $a = 3.71030 + 0.19733I$ $b = 1.097180 + 0.015067I$	$3.04440 + 2.37626I$	$1.15007 - 2.61756I$
$u = -0.042716 - 0.358832I$ $a = 3.71030 - 0.19733I$ $b = 1.097180 - 0.015067I$	$3.04440 - 2.37626I$	$1.15007 + 2.61756I$

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

(i) Arc colorings

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

$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} \frac{1}{2}u + 1 \\ \frac{1}{2}u + 1 \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} -\frac{1}{2}u + \frac{1}{4} \\ -\frac{3}{2}u + \frac{1}{4} \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} \frac{1}{2}u + 1 \\ \frac{1}{2}u + 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} \frac{1}{2}u + \frac{3}{4} \\ \frac{3}{2}u + \frac{3}{4} \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -\frac{1}{4}u + \frac{3}{4} \\ -\frac{9}{4}u + \frac{7}{4} \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u \\ 3u - 2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -\frac{1}{2}u + 1 \\ -\frac{5}{2}u + 3 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -\frac{1}{2}u + 1 \\ -\frac{5}{2}u + 3 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 30u - \frac{101}{4}$

(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
$u = 0.618034$ $a = 1.30902$ $b = 1.30902$	0.657974	-6.70900
$u = -1.61803$ $a = 0.190983$ $b = 0.190983$	-7.23771	-73.7910

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_{10}	$(u^2+u-1)(u^{18}-u^{17}+\cdots-3u+1)(u^{56}+3u^{55}+\cdots+2u+1)$
c_2	$(u^2+3u+1)(u^{18}+9u^{17}+\cdots+19u+1)(u^{56}+21u^{55}+\cdots-26u^2+1)$
c_3, c_5	$(u^2-u-1)(u^{18}-u^{17}+\cdots-3u+1)(u^{56}+3u^{55}+\cdots+2u+1)$
c_4	$16(4u^2+2u-1)(4u^{18}-2u^{17}+\cdots-10u^2+1)$ $\cdot(u^{56}-7u^{55}+\cdots-45726u+21533)$
c_6	$((u+1)^2)(u^{18}-u^{17}+\cdots+24u-16)(u^{28}+2u^{27}+\cdots-10u+1)^2$
c_7	$u^2(u^{18}+5u^{17}+\cdots-384u-64)(u^{28}-2u^{27}+\cdots-4u+1)^2$
c_8	$((u-1)^2)(u^{18}-u^{17}+\cdots+24u-16)(u^{28}+2u^{27}+\cdots-10u+1)^2$
c_9	$(u^2-3u+1)(u^{18}+9u^{17}+\cdots+19u+1)(u^{56}+21u^{55}+\cdots-26u^2+1)$
c_{11}	$16(4u^2-2u-1)(4u^{18}-2u^{17}+\cdots-10u^2+1)$ $\cdot(u^{56}-7u^{55}+\cdots-45726u+21533)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_5 c_{10}	$(y^2-3y+1)(y^{18}-9y^{17}+\cdots-19y+1)(y^{56}-21y^{55}+\cdots-26y^2+1)$
c_2, c_9	$(y^2-7y+1)(y^{18}+3y^{17}+\cdots-159y+1)(y^{56}+27y^{55}+\cdots-52y+1)$
c_4, c_{11}	$256(16y^2-12y+1)(16y^{18}-140y^{17}+\cdots-20y+1)$ $\cdot(y^{56}-29y^{55}+\cdots-2262183624y+463670089)$
c_6, c_8	$((y-1)^2)(y^{18}-13y^{17}+\cdots+736y+256)$ $\cdot(y^{28}-22y^{27}+\cdots-66y+1)^2$
c_7	$y^2(y^{18}-3y^{17}+\cdots-104960y+4096)(y^{28}-6y^{27}+\cdots-30y+1)^2$