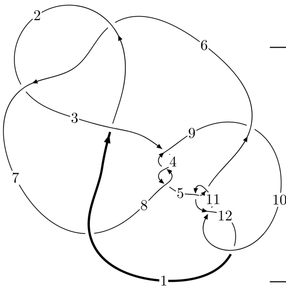
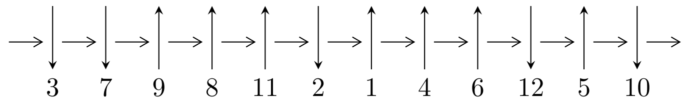
$12a_{0560}$ $(K12a_{0560})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$2,6 \xrightarrow[c_6]{} 7 \xrightarrow[c_2]{} 3,9 \xrightarrow[c_3]{} 4 \xrightarrow[c_9]{} 10 \xrightarrow[c_1]{} 1 \xrightarrow[c_7]{} 8 \xrightarrow[c_{12}]{} 12 \xrightarrow[c_{10}]{} 11 \xrightarrow[c_5]{} 5 \twoheadrightarrow c_4, c_8, c_{11}$

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

$$\begin{aligned} I_1^u = \langle & 1.46746 \times 10^{81} u^{97} - 1.76536 \times 10^{81} u^{96} + \cdots + 5.92140 \times 10^{81} b - 1.09130 \times 10^{82}, \\ & 4.16618 \times 10^{81} u^{97} + 1.31352 \times 10^{81} u^{96} + \cdots + 5.92140 \times 10^{81} a + 7.37637 \times 10^{81},\ u^{98} - u^{97} + \cdots - u + 1 \rangle \\ I_2^u = \langle & -u^2 a - u^2 + b + a,\ u^3 a^2 - 3a^2 u^2 + 2u^3 a + a^3 - a^2 u - 5u^2 a + u^3 + 3a^2 - 2u^2 + 2a + u - 1,\ u^4 - u^2 + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 110 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.
$\boldsymbol{I_1^u = \langle 1.47\times10^{81}u^{97} - 1.77\times10^{81}u^{96} + \cdots + 5.92\times10^{81}b - 1.09\times10^{82},\ 4.17\times10^{81}u^{97} + 1.31\times10^{81}u^{96} + \cdots + 5.92\times10^{81}a + 7.38\times10^{81},\ u^{98} - u^{97} + \cdots - u + 1\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -0.703581u^{97} - 0.221826u^{96} + \cdots + 2.30148u - 1.24571 \\ -0.247823u^{97} + 0.298133u^{96} + \cdots + 0.142766u + 1.84297 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 2.38586u^{97} - 2.00995u^{96} + \cdots - 3.05609u - 2.99728 \\ -1.02475u^{97} + 0.625222u^{96} + \cdots - 1.33955u + 0.977717 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -0.951404u^{97} + 0.0763073u^{96} + \cdots + 2.44424u + 0.597258 \\ -0.247823u^{97} + 0.298133u^{96} + \cdots + 0.142766u + 1.84297 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^3 \\ u^5 - u^3 + u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^6 - u^4 + 1 \\ u^8 - 2u^6 + 2u^4 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 1.77227u^{97} - 1.68697u^{96} + \cdots - 6.38178u - 1.90346 \\ -0.845163u^{97} + 0.998105u^{96} + \cdots - 1.41033u + 0.784161 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0.474727u^{97} + 0.395086u^{96} + \cdots + 0.916706u + 0.647928 \\ 0.354362u^{97} - 0.546426u^{96} + \cdots + 0.491807u - 1.27955 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1.65331u^{97} - 1.49550u^{96} + \cdots - 4.34761u - 2.09614 \\ -0.916624u^{97} + 0.581736u^{96} + \cdots - 0.992176u + 0.903994 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 2.96382u^{97} - 1.51390u^{96} + \cdots + 0.841173u - 1.40563$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{98} + 49u^{97} + \cdots + 7u + 1$
c_2, c_6	$u^{98} - u^{97} + \cdots - u + 1$
c_3, c_4, c_8	$u^{98} - u^{97} + \cdots + 85u + 25$
c_5, c_{11}	$u^{98} + u^{97} + \cdots + 7u + 1$
c_7	$u^{98} - 3u^{97} + \cdots - 93143u + 31691$
c_9	$u^{98} - 5u^{97} + \cdots - 30007u + 14539$
c_{10}, c_{12}	$u^{98} + 33u^{97} + \cdots - 9u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{98}+7y^{97}+\cdots+49y+1$
c_2, c_6	$y^{98}-49y^{97}+\cdots-7y+1$
c_3, c_4, c_8	$y^{98}+93y^{97}+\cdots-20825y+625$
c_5, c_{11}	$y^{98}+33y^{97}+\cdots-9y+1$
c_7	$y^{98}+35y^{97}+\cdots+1582314577y+1004319481$
c_9	$y^{98}+21y^{97}+\cdots-4470326109y+211382521$
c_{10}, c_{12}	$y^{98}+69y^{97}+\cdots+27y+1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.698281 + 0.734981I$ $a = -0.874615 - 0.965911I$ $b = 0.731025 + 0.877762I$	$0.24752 + 2.82673I$	0
$u = -0.698281 - 0.734981I$ $a = -0.874615 + 0.965911I$ $b = 0.731025 - 0.877762I$	$0.24752 - 2.82673I$	0
$u = -0.946641 + 0.419235I$ $a = 0.028820 - 0.209134I$ $b = 0.133572 - 0.403815I$	$-1.43448 + 1.60642I$	0
$u = -0.946641 - 0.419235I$ $a = 0.028820 + 0.209134I$ $b = 0.133572 + 0.403815I$	$-1.43448 - 1.60642I$	0
$u = 0.723311 + 0.768617I$ $a = -0.938705 + 1.015410I$ $b = 0.694302 - 1.112160I$	$-0.67700 - 8.24942I$	0
$u = 0.723311 - 0.768617I$ $a = -0.938705 - 1.015410I$ $b = 0.694302 + 1.112160I$	$-0.67700 + 8.24942I$	0
$u = -0.772111 + 0.515798I$ $a = -0.650090 - 0.932173I$ $b = 0.244840 + 0.118183I$	$-1.50656 + 2.09808I$	$0. - 4.26664I$
$u = -0.772111 - 0.515798I$ $a = -0.650090 + 0.932173I$ $b = 0.244840 - 0.118183I$	$-1.50656 - 2.09808I$	$0. + 4.26664I$
$u = 0.309981 + 0.864468I$ $a = -1.01439 - 1.42657I$ $b = 0.84080 + 1.59991I$	$-3.13766 + 11.40930I$	$0. - 6.77627I$
$u = 0.309981 - 0.864468I$ $a = -1.01439 + 1.42657I$ $b = 0.84080 - 1.59991I$	$-3.13766 - 11.40930I$	$0. + 6.77627I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.038230 + 0.319222I$ $a = -1.226750 + 0.095271I$ $b = -0.232277 + 0.027239I$	$-1.83684 - 4.93742I$	0
$u = 1.038230 - 0.319222I$ $a = -1.226750 - 0.095271I$ $b = -0.232277 - 0.027239I$	$-1.83684 + 4.93742I$	0
$u = -0.933178 + 0.561155I$ $a = -0.19771 + 1.41969I$ $b = 1.271520 - 0.539820I$	$3.33056 - 0.96432I$	0
$u = -0.933178 - 0.561155I$ $a = -0.19771 - 1.41969I$ $b = 1.271520 + 0.539820I$	$3.33056 + 0.96432I$	0
$u = 0.815439 + 0.727212I$ $a = -0.81048 + 1.18357I$ $b = 0.085644 - 1.036660I$	$-5.05966 - 2.73854I$	0
$u = 0.815439 - 0.727212I$ $a = -0.81048 - 1.18357I$ $b = 0.085644 + 1.036660I$	$-5.05966 + 2.73854I$	0
$u = -1.070500 + 0.270114I$ $a = 0.968021 - 0.509743I$ $b = 0.457242 - 0.816853I$	$-0.736308 + 0.805438I$	0
$u = -1.070500 - 0.270114I$ $a = 0.968021 + 0.509743I$ $b = 0.457242 + 0.816853I$	$-0.736308 - 0.805438I$	0
$u = -0.647624 + 0.619058I$ $a = 1.59127 + 0.05416I$ $b = -1.167280 - 0.786021I$	$4.16380 + 5.62077I$	$7.57068 - 6.82410I$
$u = -0.647624 - 0.619058I$ $a = 1.59127 - 0.05416I$ $b = -1.167280 + 0.786021I$	$4.16380 - 5.62077I$	$7.57068 + 6.82410I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.307950 + 0.837415I$ $a = -1.13129 + 1.41921I$ $b = 0.93785 - 1.45891I$	$-1.98077 - 5.63221I$	$2.48540 + 2.18051I$
$u = -0.307950 - 0.837415I$ $a = -1.13129 - 1.41921I$ $b = 0.93785 + 1.45891I$	$-1.98077 + 5.63221I$	$2.48540 - 2.18051I$
$u = 0.232349 + 0.855665I$ $a = -1.05558 - 1.08467I$ $b = 0.532748 + 1.218090I$	$-8.50104 + 5.18557I$	$-4.36390 - 3.55063I$
$u = 0.232349 - 0.855665I$ $a = -1.05558 + 1.08467I$ $b = 0.532748 - 1.218090I$	$-8.50104 - 5.18557I$	$-4.36390 + 3.55063I$
$u = 0.961002 + 0.564221I$ $a = -0.44703 - 1.38158I$ $b = 1.328800 + 0.254026I$	$3.62769 - 4.71299I$	0
$u = 0.961002 - 0.564221I$ $a = -0.44703 + 1.38158I$ $b = 1.328800 - 0.254026I$	$3.62769 + 4.71299I$	0
$u = 0.605300 + 0.626623I$ $a = 1.51979 + 0.06738I$ $b = -1.223730 + 0.519669I$	$4.66705 + 0.02865I$	$8.77619 + 0.87832I$
$u = 0.605300 - 0.626623I$ $a = 1.51979 - 0.06738I$ $b = -1.223730 - 0.519669I$	$4.66705 - 0.02865I$	$8.77619 - 0.87832I$
$u = -0.929226 + 0.670090I$ $a = -0.53068 - 1.33385I$ $b = -0.588519 + 0.613229I$	$-0.43509 + 2.50606I$	0
$u = -0.929226 - 0.670090I$ $a = -0.53068 + 1.33385I$ $b = -0.588519 - 0.613229I$	$-0.43509 - 2.50606I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=\ 0.915941+0.711844I$ $a=-0.64807+1.38100I$ $b=-0.572020-0.910887I$	$-1.24817+2.69565I$	0
$u=\ 0.915941-0.711844I$ $a=-0.64807-1.38100I$ $b=-0.572020+0.910887I$	$-1.24817-2.69565I$	0
$u=\ 1.127030+0.285308I$ $a=\ 1.064220+0.673238I$ $b=\ 0.508509+1.058380I$	$-1.74262+4.42183I$	0
$u=\ 1.127030-0.285308I$ $a=\ 1.064220-0.673238I$ $b=\ 0.508509-1.058380I$	$-1.74262-4.42183I$	0
$u=\ 1.062130+0.488743I$ $a=-1.111330-0.750250I$ $b=\ 0.557998-0.549738I$	$-0.87096-4.56762I$	0
$u=\ 1.062130-0.488743I$ $a=-1.111330+0.750250I$ $b=\ 0.557998+0.549738I$	$-0.87096+4.56762I$	0
$u=\ 1.081070+0.447530I$ $a=\ 0.67659+1.70831I$ $b=-2.04138-0.47794I$	$-0.770537-0.474142I$	0
$u=\ 1.081070-0.447530I$ $a=\ 0.67659-1.70831I$ $b=-2.04138+0.47794I$	$-0.770537+0.474142I$	0
$u=\ 0.118232+0.819519I$ $a=-1.229960-0.561977I$ $b=\ 0.375994+0.574642I$	$-6.10324-1.41750I$	$-2.21136+2.61331I$
$u=\ 0.118232-0.819519I$ $a=-1.229960+0.561977I$ $b=\ 0.375994-0.574642I$	$-6.10324+1.41750I$	$-2.21136-2.61331I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.107250 + 0.404686I$ $a = -1.38453 + 0.31849I$ $b = -0.137894 + 0.552380I$	$-2.25294 + 0.52462I$	0
$u = -1.107250 - 0.404686I$ $a = -1.38453 - 0.31849I$ $b = -0.137894 - 0.552380I$	$-2.25294 - 0.52462I$	0
$u = 1.115920 + 0.386738I$ $a = 0.770057 + 0.924879I$ $b = 0.001644 + 1.122350I$	$-5.78523 - 1.33156I$	0
$u = 1.115920 - 0.386738I$ $a = 0.770057 - 0.924879I$ $b = 0.001644 - 1.122350I$	$-5.78523 + 1.33156I$	0
$u = -1.075130 + 0.491781I$ $a = 0.321591 - 1.146720I$ $b = -0.529411 - 0.770162I$	$-0.78033 + 1.78897I$	0
$u = -1.075130 - 0.491781I$ $a = 0.321591 + 1.146720I$ $b = -0.529411 + 0.770162I$	$-0.78033 - 1.78897I$	0
$u = -1.086240 + 0.469331I$ $a = 1.00483 - 1.65568I$ $b = -2.08170 + 0.11796I$	$-0.60469 + 6.62618I$	0
$u = -1.086240 - 0.469331I$ $a = 1.00483 + 1.65568I$ $b = -2.08170 - 0.11796I$	$-0.60469 - 6.62618I$	0
$u = 0.800540 + 0.159505I$ $a = -1.34398 + 0.82795I$ $b = 0.235141 + 0.634144I$	$-3.78952 - 0.63574I$	$-7.80030 - 1.07464I$
$u = 0.800540 - 0.159505I$ $a = -1.34398 - 0.82795I$ $b = 0.235141 - 0.634144I$	$-3.78952 + 0.63574I$	$-7.80030 + 1.07464I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.706846 + 0.404397I$ $a = 1.025440 + 0.209974I$ $b = -0.163790 - 0.549676I$	$-0.92183 + 1.73948I$	$1.33670 - 5.18470I$
$u = -0.706846 - 0.404397I$ $a = 1.025440 - 0.209974I$ $b = -0.163790 + 0.549676I$	$-0.92183 - 1.73948I$	$1.33670 + 5.18470I$
$u = -0.291710 + 0.746647I$ $a = 0.913446 - 0.553942I$ $b = -0.86158 + 1.20273I$	$2.51136 - 7.38098I$	$4.67865 + 6.50498I$
$u = -0.291710 - 0.746647I$ $a = 0.913446 + 0.553942I$ $b = -0.86158 - 1.20273I$	$2.51136 + 7.38098I$	$4.67865 - 6.50498I$
$u = -0.204099 + 0.770012I$ $a = -1.44727 + 0.96788I$ $b = 0.791296 - 0.812280I$	$-4.03937 - 2.88714I$	$1.97779 + 2.63363I$
$u = -0.204099 - 0.770012I$ $a = -1.44727 - 0.96788I$ $b = 0.791296 + 0.812280I$	$-4.03937 + 2.88714I$	$1.97779 - 2.63363I$
$u = 0.324606 + 0.719295I$ $a = 0.994278 + 0.499389I$ $b = -0.935589 - 0.987956I$	$3.41838 + 1.78840I$	$6.81099 - 1.35188I$
$u = 0.324606 - 0.719295I$ $a = 0.994278 - 0.499389I$ $b = -0.935589 + 0.987956I$	$3.41838 - 1.78840I$	$6.81099 + 1.35188I$
$u = 1.116840 + 0.479179I$ $a = 0.500971 + 1.225950I$ $b = -0.546443 + 1.046570I$	$-1.73593 - 7.03987I$	0
$u = 1.116840 - 0.479179I$ $a = 0.500971 - 1.225950I$ $b = -0.546443 - 1.046570I$	$-1.73593 + 7.03987I$	0

Solutions to I^u_1	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.202550 + 0.232951I$ $a = -0.665302 - 0.130075I$ $b = -0.59992 - 1.56836I$	$-6.89377 + 2.42700I$	0
$u = 1.202550 - 0.232951I$ $a = -0.665302 + 0.130075I$ $b = -0.59992 + 1.56836I$	$-6.89377 - 2.42700I$	0
$u = 1.185840 + 0.328845I$ $a = -0.159149 + 0.253149I$ $b = -0.638766 - 1.188740I$	$-8.21277 - 0.66939I$	0
$u = 1.185840 - 0.328845I$ $a = -0.159149 - 0.253149I$ $b = -0.638766 + 1.188740I$	$-8.21277 + 0.66939I$	0
$u = -1.130920 + 0.495066I$ $a = -1.50190 + 0.76911I$ $b = 0.357862 + 1.110160I$	$-5.01226 + 6.39834I$	0
$u = -1.130920 - 0.495066I$ $a = -1.50190 - 0.76911I$ $b = 0.357862 - 1.110160I$	$-5.01226 - 6.39834I$	0
$u = 1.117680 + 0.547964I$ $a = -1.46662 - 1.06692I$ $b = 0.87922 - 1.22354I$	$1.10367 - 6.62158I$	0
$u = 1.117680 - 0.547964I$ $a = -1.46662 + 1.06692I$ $b = 0.87922 + 1.22354I$	$1.10367 + 6.62158I$	0
$u = -1.230070 + 0.222227I$ $a = -0.650623 + 0.287213I$ $b = -0.55993 + 1.63653I$	$-8.23592 - 8.08821I$	0
$u = -1.230070 - 0.222227I$ $a = -0.650623 - 0.287213I$ $b = -0.55993 - 1.63653I$	$-8.23592 + 8.08821I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.135920 + 0.548670I$ $a = -1.56765 + 1.05385I$ $b = 0.80759 + 1.40097I$	$0.04166 + 12.27660I$	0
$u = -1.135920 - 0.548670I$ $a = -1.56765 - 1.05385I$ $b = 0.80759 - 1.40097I$	$0.04166 - 12.27660I$	0
$u = -1.234570 + 0.289671I$ $a = -0.280220 + 0.162253I$ $b = -0.41036 + 1.42432I$	$-13.20240 - 1.48788I$	0
$u = -1.234570 - 0.289671I$ $a = -0.280220 - 0.162253I$ $b = -0.41036 - 1.42432I$	$-13.20240 + 1.48788I$	0
$u = -1.220590 + 0.363156I$ $a = 0.176181 - 0.092037I$ $b = -0.400866 + 0.960136I$	$-10.23010 + 5.45971I$	0
$u = -1.220590 - 0.363156I$ $a = 0.176181 + 0.092037I$ $b = -0.400866 - 0.960136I$	$-10.23010 - 5.45971I$	0
$u = -1.162350 + 0.529110I$ $a = 1.58602 - 0.69662I$ $b = -1.049770 - 0.884839I$	$-6.83271 + 7.72442I$	0
$u = -1.162350 - 0.529110I$ $a = 1.58602 + 0.69662I$ $b = -1.049770 + 0.884839I$	$-6.83271 - 7.72442I$	0
$u = 1.189490 + 0.501412I$ $a = 1.304510 + 0.485719I$ $b = -0.687871 + 0.503380I$	$-9.27708 - 3.36674I$	0
$u = 1.189490 - 0.501412I$ $a = 1.304510 - 0.485719I$ $b = -0.687871 - 0.503380I$	$-9.27708 + 3.36674I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.160770 + 0.580972I$ $a = 2.02321 - 0.58604I$ $b = -1.04158 - 1.61922I$	$-4.53003 + 10.88730I$	0
$u = -1.160770 - 0.580972I$ $a = 2.02321 + 0.58604I$ $b = -1.04158 + 1.61922I$	$-4.53003 - 10.88730I$	0
$u = 1.169640 + 0.590016I$ $a = 2.06628 + 0.49634I$ $b = -0.90929 + 1.73967I$	$-5.7221 - 16.7702I$	0
$u = 1.169640 - 0.590016I$ $a = 2.06628 - 0.49634I$ $b = -0.90929 - 1.73967I$	$-5.7221 + 16.7702I$	0
$u = 1.187170 + 0.556301I$ $a = 1.77127 + 0.43655I$ $b = -0.68854 + 1.25154I$	$-11.3632 - 10.3671I$	0
$u = 1.187170 - 0.556301I$ $a = 1.77127 - 0.43655I$ $b = -0.68854 - 1.25154I$	$-11.3632 + 10.3671I$	0
$u = -0.185731 + 0.641811I$ $a = 0.756552 - 0.283327I$ $b = -0.232991 + 0.941868I$	$-2.35932 - 2.00526I$	$-1.48033 + 3.96035I$
$u = -0.185731 - 0.641811I$ $a = 0.756552 + 0.283327I$ $b = -0.232991 - 0.941868I$	$-2.35932 + 2.00526I$	$-1.48033 - 3.96035I$
$u = 0.389023 + 0.509805I$ $a = 1.075130 + 0.144503I$ $b = -0.544827 - 0.221741I$	$1.062250 + 0.424517I$	$8.97355 - 2.01331I$
$u = 0.389023 - 0.509805I$ $a = 1.075130 - 0.144503I$ $b = -0.544827 + 0.221741I$	$1.062250 - 0.424517I$	$8.97355 + 2.01331I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.290022 + 0.515209I$ $a = -0.018168 - 0.781517I$ $b = 0.879191 - 0.370054I$	$1.36541 + 2.37978I$	$3.46852 - 3.41971I$
$u = -0.290022 - 0.515209I$ $a = -0.018168 + 0.781517I$ $b = 0.879191 + 0.370054I$	$1.36541 - 2.37978I$	$3.46852 + 3.41971I$
$u = 0.127475 + 0.564967I$ $a = 0.312049 + 0.348058I$ $b = 0.714824 + 0.627954I$	$0.89060 + 2.90592I$	$2.23821 - 2.15626I$
$u = 0.127475 - 0.564967I$ $a = 0.312049 - 0.348058I$ $b = 0.714824 - 0.627954I$	$0.89060 - 2.90592I$	$2.23821 + 2.15626I$
$u = 0.445021 + 0.220782I$ $a = -2.67070 - 2.13843I$ $b = 1.43176 - 0.52942I$	$1.36889 - 3.02323I$	$1.02541 + 1.50693I$
$u = 0.445021 - 0.220782I$ $a = -2.67070 + 2.13843I$ $b = 1.43176 + 0.52942I$	$1.36889 + 3.02323I$	$1.02541 - 1.50693I$
$u = -0.334073 + 0.360832I$ $a = -2.92777 + 1.91022I$ $b = 1.54696 + 0.11678I$	$1.58828 - 2.77548I$	$2.40050 + 3.94176I$
$u = -0.334073 - 0.360832I$ $a = -2.92777 - 1.91022I$ $b = 1.54696 - 0.11678I$	$1.58828 + 2.77548I$	$2.40050 - 3.94176I$

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

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} u^3a - u \\ -au \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^2a + u^2 \\ u^2a + u^2 - a \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^3 \\ 0 \end{pmatrix}$$

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

$$a_{12} = \begin{pmatrix} u^3a^2 + u^3a + u^3 + au + u \\ u^3a^2 + 2u^3a - a^2u + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^3a^2 + 2u^2a - u^3 - a^2 + 2au + 3u^2 - 3a + 2u - 2 \\ u^3a^2 + 2u^3a - a^2u - u^2a + u^3 - u^2 + a + u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^3a \\ u^3 - au - u \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4a^2u^2 - 4u^3 + 4au + 8u^2 - 8a + 4u - 12$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.866025+0.500000I$ $a = -0.967306-0.373532I$ $b = 1.307140+0.215080I$	$1.37919+0.79824I$	$1.50976+0.48465I$
$u = 0.866025+0.500000I$ $a = -0.006504+0.581105I$ $b = 0.569840I$	$-2.75839-2.02988I$	$-5.01951+3.46410I$
$u = 0.866025+0.500000I$ $a = 0.33984+1.89050I$ $b = -1.307140+0.215080I$	$1.37919-4.85801I$	$1.50976+6.44355I$
$u = 0.866025-0.500000I$ $a = -0.967306+0.373532I$ $b = 1.307140-0.215080I$	$1.37919-0.79824I$	$1.50976-0.48465I$
$u = 0.866025-0.500000I$ $a = -0.006504-0.581105I$ $b = -0.569840I$	$-2.75839+2.02988I$	$-5.01951-3.46410I$
$u = 0.866025-0.500000I$ $a = 0.33984-1.89050I$ $b = -1.307140-0.215080I$	$1.37919+4.85801I$	$1.50976-6.44355I$
$u = -0.866025+0.500000I$ $a = -1.339840+0.158452I$ $b = 1.307140+0.215080I$	$1.37919+4.85801I$	$1.50976-6.44355I$
$u = -0.866025+0.500000I$ $a = -0.99350-1.15095I$ $b = 0.569840I$	$-2.75839+2.02988I$	$-5.01951-3.46410I$
$u = -0.866025+0.500000I$ $a = -0.03269-2.10558I$ $b = -1.307140+0.215080I$	$1.37919-0.79824I$	$1.50976-0.48465I$
$u = -0.866025-0.500000I$ $a = -1.339840-0.158452I$ $b = 1.307140-0.215080I$	$1.37919-4.85801I$	$1.50976+6.44355I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.866025-0.500000I$ $a=-0.99350+1.15095I$ $b=\quad -0.569840I$	$-2.75839-2.02988I$	$-5.01951+3.46410I$
$u=-0.866025-0.500000I$ $a=-0.03269+2.10558I$ $b=-1.307140-0.215080I$	$1.37919+0.79824I$	$1.50976+0.48465I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^2-u+1)^6)(u^{98}+49u^{97}+\cdots+7u+1)$
c_2, c_6	$((u^4-u^2+1)^3)(u^{98}-u^{97}+\cdots-u+1)$
c_3, c_4, c_8	$((u^2+1)^6)(u^{98}-u^{97}+\cdots+85u+25)$
c_5, c_{11}	$((u^6+u^4+2u^2+1)^2)(u^{98}+u^{97}+\cdots+7u+1)$
c_7	$((u^4-u^2+1)^3)(u^{98}-3u^{97}+\cdots-93143u+31691)$
c_9	$((u^6-3u^4+2u^2+1)^2)(u^{98}-5u^{97}+\cdots-30007u+14539)$
c_{10}	$((u^3-u^2+2u-1)^4)(u^{98}+33u^{97}+\cdots-9u+1)$
c_{12}	$((u^3+u^2+2u+1)^4)(u^{98}+33u^{97}+\cdots-9u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^2+y+1)^6)(y^{98}+7y^{97}+\cdots+49y+1)$
c_2, c_6	$((y^2-y+1)^6)(y^{98}-49y^{97}+\cdots-7y+1)$
c_3, c_4, c_8	$((y+1)^{12})(y^{98}+93y^{97}+\cdots-20825y+625)$
c_5, c_{11}	$((y^3+y^2+2y+1)^4)(y^{98}+33y^{97}+\cdots-9y+1)$
c_7	$((y^2-y+1)^6)(y^{98}+35y^{97}+\cdots+1.58231\times 10^9 y+1.00432\times 10^9)$
c_9	$(y^3-3y^2+2y+1)^4$ $\cdot\,(y^{98}+21y^{97}+\cdots-4470326109y+211382521)$
c_{10}, c_{12}	$((y^3+3y^2+2y-1)^4)(y^{98}+69y^{97}+\cdots+27y+1)$