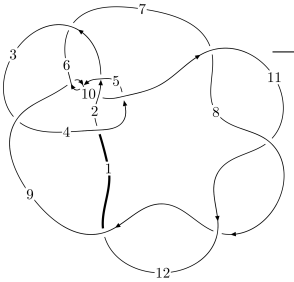
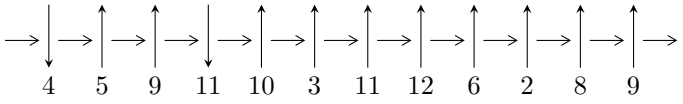
$12n_{0698}$ $(K12n_{0698})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & 4.82224 \times 10^{104} u^{71} + 2.70914 \times 10^{103} u^{70} + \cdots + 1.50566 \times 10^{105} b + 5.07425 \times 10^{105}, \\
& - 3.95098 \times 10^{106} u^{71} - 5.31311 \times 10^{105} u^{70} + \cdots + 1.95736 \times 10^{106} a - 4.15435 \times 10^{107}, \\
& u^{72} - u^{71} + \cdots + 53u - 13 \rangle \\
I_2^u = \langle & 55u^{17} - 68u^{16} + \cdots + b + 45, \\
& u^{16} - 9u^{14} + 32u^{12} - 54u^{10} + u^9 + 33u^8 - 5u^7 + 23u^6 + 8u^5 - 39u^4 - 4u^3 + 10u^2 + a + 1, \\
& u^{18} - 10u^{16} + 41u^{14} - 86u^{12} + u^{11} + 87u^{10} - 6u^9 - 10u^8 + 13u^7 - 62u^6 - 12u^5 + 49u^4 + 4u^3 - 10u^2 + 1 \rangle
\end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 90 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. $\boldsymbol{I_1^u = \langle 4.82 \times 10^{104} u^{71} + 2.71 \times 10^{103} u^{70} + \cdots + 1.51 \times 10^{105} b + 5.07 \times 10^{105},\ -3.95 \times 10^{106} u^{71} - 5.31 \times 10^{105} u^{70} + \cdots + 1.96 \times 10^{106} a - 4.15 \times 10^{107},\ u^{72} - u^{71} + \cdots + 53u - 13 \rangle}$

(i) Arc colorings

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

$$a_{12} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} 2.01852u^{71} + 0.271443u^{70} + \cdots - 65.0023u + 21.2242 \\ -0.320274u^{71} - 0.0179930u^{70} + \cdots + 10.2838u - 3.37011 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1.34277u^{71} + 0.0225101u^{70} + \cdots - 40.7482u + 15.2242 \\ -1.75378u^{71} - 0.432113u^{70} + \cdots + 60.3842u - 19.0972 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 2.01852u^{71} + 0.271443u^{70} + \cdots - 65.0023u + 21.2242 \\ 2.48267u^{71} + 0.427423u^{70} + \cdots - 84.8436u + 26.3994 \end{pmatrix}$$

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

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

$$a_5 = \begin{pmatrix} 0.787391u^{71} + 0.0299893u^{70} + \cdots - 16.9800u + 6.61959 \\ 3.76108u^{71} + 0.707611u^{70} + \cdots - 129.385u + 39.9767 \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} -1.22082u^{71} - 0.484053u^{70} + \cdots + 44.6748u - 14.9450 \\ 0.413411u^{71} + 0.0302634u^{70} + \cdots + 1.23588u + 0.424911 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1.22688u^{71} + 0.0699200u^{70} + \cdots - 40.1232u + 12.0753 \\ -0.214089u^{71} + 0.417178u^{70} + \cdots - 2.55754u - 0.600644 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -1.82373u^{71} + 0.228275u^{70} + \cdots + 35.3694u - 11.5112$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{72}+6u^{71}+\cdots-38390u+1825$
c_2	$u^{72}+6u^{71}+\cdots-228u+3$
c_3	$u^{72}-u^{71}+\cdots-34023u-7187$
c_4	$u^{72}-9u^{70}+\cdots-3368u+431$
c_5, c_9	$u^{72}-3u^{71}+\cdots+99u-9$
c_6	$u^{72}-2u^{71}+\cdots-1062455u+98953$
c_7, c_8, c_{11} c_{12}	$u^{72}-u^{71}+\cdots+53u-13$
c_{10}	$u^{72}-6u^{71}+\cdots-1644u+271$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{72} - 62y^{71} + \cdots - 343686400y + 3330625$
c_2	$y^{72} + 14y^{71} + \cdots - 66864y + 9$
c_3	$y^{72} + 61y^{71} + \cdots + 1453616311y + 51652969$
c_4	$y^{72} - 18y^{71} + \cdots - 35272544y + 185761$
c_5, c_9	$y^{72} + 53y^{71} + \cdots - 5265y + 81$
c_6	$y^{72} + 44y^{71} + \cdots - 139414609387y + 9791696209$
c_7, c_8, c_{11} c_{12}	$y^{72} - 59y^{71} + \cdots + 2755y + 169$
c_{10}	$y^{72} + 14y^{71} + \cdots + 1440312y + 73441$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.126859 + 0.988884I$ $a = 1.61742 - 0.09689I$ $b = 0.050276 - 0.299679I$	$-5.20735 + 5.44865I$	0
$u = 0.126859 - 0.988884I$ $a = 1.61742 + 0.09689I$ $b = 0.050276 + 0.299679I$	$-5.20735 - 5.44865I$	0
$u = -0.127845 + 1.002920I$ $a = 1.70641 + 0.18941I$ $b = -0.107709 + 0.230288I$	$-10.2342 - 11.1489I$	0
$u = -0.127845 - 1.002920I$ $a = 1.70641 - 0.18941I$ $b = -0.107709 - 0.230288I$	$-10.2342 + 11.1489I$	0
$u = -0.141541 + 0.954879I$ $a = 1.65626 - 0.08213I$ $b = 0.051271 + 0.607650I$	$-9.10926 + 1.32235I$	0
$u = -0.141541 - 0.954879I$ $a = 1.65626 + 0.08213I$ $b = 0.051271 - 0.607650I$	$-9.10926 - 1.32235I$	0
$u = -0.939877 + 0.013317I$ $a = -0.291635 - 1.080060I$ $b = 1.73084 + 0.47010I$	$-3.34758 + 0.14621I$	$5.65895 + 0.I$
$u = -0.939877 - 0.013317I$ $a = -0.291635 + 1.080060I$ $b = 1.73084 - 0.47010I$	$-3.34758 - 0.14621I$	$5.65895 + 0.I$
$u = 1.076150 + 0.148518I$ $a = -1.37015 + 0.85044I$ $b = 2.50989 - 0.59662I$	$2.74768 + 2.38827I$	0
$u = 1.076150 - 0.148518I$ $a = -1.37015 - 0.85044I$ $b = 2.50989 + 0.59662I$	$2.74768 - 2.38827I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.169948 + 1.080080I$ $a = -1.151840 - 0.173137I$ $b = 0.320494 - 0.089757I$	$-7.75026 + 1.40505I$	0
$u = 0.169948 - 1.080080I$ $a = -1.151840 + 0.173137I$ $b = 0.320494 + 0.089757I$	$-7.75026 - 1.40505I$	0
$u = -0.100523 + 0.879151I$ $a = -1.53673 + 0.45497I$ $b = 0.235088 - 0.021753I$	$-4.60409 + 0.28761I$	$6.69444 + 0.38443I$
$u = -0.100523 - 0.879151I$ $a = -1.53673 - 0.45497I$ $b = 0.235088 + 0.021753I$	$-4.60409 - 0.28761I$	$6.69444 - 0.38443I$
$u = -0.611340 + 0.627257I$ $a = -0.066441 + 0.364149I$ $b = -0.206420 + 0.446689I$	$-3.02185 - 3.31425I$	$3.79268 + 3.31898I$
$u = -0.611340 - 0.627257I$ $a = -0.066441 - 0.364149I$ $b = -0.206420 - 0.446689I$	$-3.02185 + 3.31425I$	$3.79268 - 3.31898I$
$u = 1.113140 + 0.172789I$ $a = -0.521124 - 0.520349I$ $b = 0.45809 - 1.47955I$	$0.00408 + 6.29362I$	0
$u = 1.113140 - 0.172789I$ $a = -0.521124 + 0.520349I$ $b = 0.45809 + 1.47955I$	$0.00408 - 6.29362I$	0
$u = 1.156820 + 0.028330I$ $a = 0.165309 + 1.262120I$ $b = 0.224082 - 0.645135I$	$3.70030 - 0.68226I$	0
$u = 1.156820 - 0.028330I$ $a = 0.165309 - 1.262120I$ $b = 0.224082 + 0.645135I$	$3.70030 + 0.68226I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.167160+0.206148I$ $a=-1.71705-0.04041I$ $b=\ \ 2.93225-0.19622I$	$0.36792-7.14775I$	0
$u=-1.167160-0.206148I$ $a=-1.71705+0.04041I$ $b=\ \ 2.93225+0.19622I$	$0.36792+7.14775I$	0
$u=\ \ 0.012163+0.813810I$ $a=-2.26681-0.64788I$ $b=\ \ 0.353647+0.193689I$	$-8.47599-2.01586I$	$-1.74932+3.46594I$
$u=\ \ 0.012163-0.813810I$ $a=-2.26681+0.64788I$ $b=\ \ 0.353647-0.193689I$	$-8.47599+2.01586I$	$-1.74932-3.46594I$
$u=-1.197050+0.139381I$ $a=-0.025309+0.409207I$ $b=-0.278101+0.921535I$	$4.25039-3.42640I$	0
$u=-1.197050-0.139381I$ $a=-0.025309-0.409207I$ $b=-0.278101-0.921535I$	$4.25039+3.42640I$	0
$u=-1.22306$ $a=\ \ 0.911163$ $b=-2.59828$	5.53230	0
$u=\ \ 1.257050+0.016904I$ $a=\ \ 0.864368-0.363359I$ $b=-2.47476+1.48717I$	$1.45015-3.58564I$	0
$u=\ \ 1.257050-0.016904I$ $a=\ \ 0.864368+0.363359I$ $b=-2.47476-1.48717I$	$1.45015+3.58564I$	0
$u=\ \ 1.126030+0.582449I$ $a=-0.511047-0.643523I$ $b=\ \ 1.44670+0.79597I$	$-4.85158+4.39466I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.126030 - 0.582449I$ $a = -0.511047 + 0.643523I$ $b = 1.44670 - 0.79597I$	$-4.85158 - 4.39466I$	0
$u = -1.209670 + 0.417858I$ $a = -0.856738 + 0.734668I$ $b = 1.90170 - 1.11652I$	$-1.19160 - 4.92957I$	0
$u = -1.209670 - 0.417858I$ $a = -0.856738 - 0.734668I$ $b = 1.90170 + 1.11652I$	$-1.19160 + 4.92957I$	0
$u = 1.272340 + 0.155410I$ $a = 0.812489 - 0.086231I$ $b = -1.47439 - 0.51290I$	$1.46025 + 2.68807I$	0
$u = 1.272340 - 0.155410I$ $a = 0.812489 + 0.086231I$ $b = -1.47439 + 0.51290I$	$1.46025 - 2.68807I$	0
$u = -1.185310 + 0.498510I$ $a = 0.82701 - 1.16892I$ $b = -0.71053 + 1.83597I$	$-5.90329 - 6.47727I$	0
$u = -1.185310 - 0.498510I$ $a = 0.82701 + 1.16892I$ $b = -0.71053 - 1.83597I$	$-5.90329 + 6.47727I$	0
$u = -1.306730 + 0.016350I$ $a = 0.763989 + 0.862315I$ $b = -0.989243 - 0.377234I$	$2.64593 - 3.47147I$	0
$u = -1.306730 - 0.016350I$ $a = 0.763989 - 0.862315I$ $b = -0.989243 + 0.377234I$	$2.64593 + 3.47147I$	0
$u = 1.185180 + 0.555323I$ $a = 0.648873 + 0.912240I$ $b = -0.71737 - 1.69599I$	$-1.96169 - 0.01375I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.185180 - 0.555323I$ $a = 0.648873 - 0.912240I$ $b = -0.71737 + 1.69599I$	$-1.96169 + 0.01375I$	0
$u = 1.267320 + 0.374432I$ $a = -1.10450 - 1.16691I$ $b = 2.31610 + 1.70281I$	$-4.57901 + 6.29919I$	0
$u = 1.267320 - 0.374432I$ $a = -1.10450 + 1.16691I$ $b = 2.31610 - 1.70281I$	$-4.57901 - 6.29919I$	0
$u = -1.294090 + 0.341511I$ $a = -0.290838 + 1.234360I$ $b = 1.16609 - 2.28504I$	$-4.40911 - 2.13637I$	0
$u = -1.294090 - 0.341511I$ $a = -0.290838 - 1.234360I$ $b = 1.16609 + 2.28504I$	$-4.40911 + 2.13637I$	0
$u = -1.204420 + 0.584547I$ $a = 0.437650 - 1.000750I$ $b = -0.55270 + 1.68415I$	$-6.94951 + 5.57839I$	0
$u = -1.204420 - 0.584547I$ $a = 0.437650 + 1.000750I$ $b = -0.55270 - 1.68415I$	$-6.94951 - 5.57839I$	0
$u = -0.365082 + 0.449645I$ $a = 0.724515 - 0.003907I$ $b = 0.590117 + 0.122833I$	$-3.33344 - 0.58612I$	$4.42329 + 3.18792I$
$u = -0.365082 - 0.449645I$ $a = 0.724515 + 0.003907I$ $b = 0.590117 - 0.122833I$	$-3.33344 + 0.58612I$	$4.42329 - 3.18792I$
$u = 1.36594 + 0.40578I$ $a = -0.422467 - 0.892800I$ $b = 1.05490 + 1.55127I$	$0.01877 + 4.33991I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.36594 - 0.40578I$ $a = -0.422467 + 0.892800I$ $b = 1.05490 - 1.55127I$	$0.01877 - 4.33991I$	0
$u = -1.38791 + 0.45935I$ $a = 0.810663 - 0.808801I$ $b = -1.89548 + 1.84655I$	$-0.45597 - 10.62370I$	0
$u = -1.38791 - 0.45935I$ $a = 0.810663 + 0.808801I$ $b = -1.89548 - 1.84655I$	$-0.45597 + 10.62370I$	0
$u = 1.39138 + 0.46126I$ $a = 0.849080 + 0.942667I$ $b = -2.01018 - 1.90844I$	$-5.4651 + 16.3720I$	0
$u = 1.39138 - 0.46126I$ $a = 0.849080 - 0.942667I$ $b = -2.01018 + 1.90844I$	$-5.4651 - 16.3720I$	0
$u = 1.41047 + 0.44601I$ $a = 0.610953 + 0.683746I$ $b = -1.76875 - 1.90527I$	$-4.21502 + 3.71603I$	0
$u = 1.41047 - 0.44601I$ $a = 0.610953 - 0.683746I$ $b = -1.76875 + 1.90527I$	$-4.21502 - 3.71603I$	0
$u = -1.39405 + 0.52910I$ $a = -0.526831 + 0.755276I$ $b = 1.12722 - 1.11980I$	$-2.92127 - 7.14791I$	0
$u = -1.39405 - 0.52910I$ $a = -0.526831 - 0.755276I$ $b = 1.12722 + 1.11980I$	$-2.92127 + 7.14791I$	0
$u = 0.365685 + 0.326725I$ $a = 1.41373 - 1.37865I$ $b = -0.564131 - 0.229982I$	$0.900933 - 0.329550I$	$6.04745 - 3.44320I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.365685 - 0.326725I$ $a = 1.41373 + 1.37865I$ $b = -0.564131 + 0.229982I$	$0.900933 + 0.329550I$	$6.04745 + 3.44320I$
$u = 0.483251$ $a = 0.865400$ $b = -0.374226$	0.738726	12.8440
$u = 0.271415 + 0.339694I$ $a = 1.14210 - 0.85589I$ $b = 0.475871 + 1.205610I$	$-2.32274 - 4.16974I$	$2.86926 + 0.82016I$
$u = 0.271415 - 0.339694I$ $a = 1.14210 + 0.85589I$ $b = 0.475871 - 1.205610I$	$-2.32274 + 4.16974I$	$2.86926 - 0.82016I$
$u = -1.58255 + 0.01145I$ $a = 0.252185 - 0.123258I$ $b = -1.217410 + 0.437776I$	$7.95850 + 0.06427I$	0
$u = -1.58255 - 0.01145I$ $a = 0.252185 + 0.123258I$ $b = -1.217410 - 0.437776I$	$7.95850 - 0.06427I$	0
$u = -0.110595 + 0.398425I$ $a = -0.50400 + 3.42521I$ $b = -0.525466 - 0.195616I$	$-2.69671 + 4.74873I$	$1.03045 - 3.19857I$
$u = -0.110595 - 0.398425I$ $a = -0.50400 - 3.42521I$ $b = -0.525466 + 0.195616I$	$-2.69671 - 4.74873I$	$1.03045 + 3.19857I$
$u = 1.58743 + 0.13147I$ $a = -0.036866 - 0.330156I$ $b = -0.272582 + 0.792813I$	$4.58019 + 6.01061I$	0
$u = 1.58743 - 0.13147I$ $a = -0.036866 + 0.330156I$ $b = -0.272582 - 0.792813I$	$4.58019 - 6.01061I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.040336+0.308718I$		
$a=$	$1.162940+0.506483I$	$0.69881+1.66668I$	$4.53475-6.54101I$
$b=$	$0.306872-0.876204I$		
$u=$	$0.040336-0.308718I$		
$a=$	$1.162940-0.506483I$	$0.69881-1.66668I$	$4.53475+6.54101I$
$b=$	$0.306872+0.876204I$		

II. $I_2^u =$
$\langle 55u^{17}-68u^{16}+\cdots+b+45,\ u^{16}-9u^{14}+\cdots+a+1,\ u^{18}-10u^{16}+\cdots-10u^2+1\rangle$

(i) Arc colorings

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^{16}+9u^{14}+\cdots-10u^2-1 \\ -55u^{17}+68u^{16}+\cdots+35u-45 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -59u^{17}+70u^{16}+\cdots+44u-48 \\ 119u^{17}-144u^{16}+\cdots-80u+96 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^{16}+9u^{14}+\cdots-10u^2-1 \\ -55u^{17}+67u^{16}+\cdots+35u-44 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u \\ u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^2+1 \\ u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 13u^{17}-17u^{16}+\cdots-8u+9 \\ -96u^{17}+116u^{16}+\cdots+63u-77 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^3-2u \\ -u^3+u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -37u^{17}+44u^{16}+\cdots+23u-32 \\ 54u^{17}-67u^{16}+\cdots-32u+44 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -16u^{17}+21u^{16}+\cdots+4u-10 \\ -19u^{17}+22u^{16}+\cdots+15u-16 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= -230u^{17}+282u^{16}+1952u^{15}-2397u^{14}-6471u^{13}+7965u^{12}+9941u^{11}-12521u^{10}-4527u^9+7084u^8-6484u^7+4905u^6+8225u^5-7445u^4-2069u^3+1737u^2+144u-174$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{18} - 11u^{17} + \cdots - 39u + 5$
c_2	$u^{18} + 7u^{17} + \cdots + 3u + 1$
c_3	$u^{18} + 2u^{16} + \cdots - 6u^2 + 1$
c_4	$u^{18} - u^{17} + \cdots - u + 1$
c_5	$u^{18} - 2u^{17} + \cdots - 8u + 5$
c_6	$u^{18} + 3u^{17} + \cdots - 6u + 1$
c_7, c_8	$u^{18} - 10u^{16} + \cdots - 10u^2 + 1$
c_9	$u^{18} + 2u^{17} + \cdots + 8u + 5$
c_{10}	$u^{18} - u^{17} + \cdots - u + 1$
c_{11}, c_{12}	$u^{18} - 10u^{16} + \cdots - 10u^2 + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{18} - 3y^{17} + \cdots + 169y + 25$
c_2	$y^{18} + y^{17} + \cdots - 7y + 1$
c_3	$y^{18} + 4y^{17} + \cdots - 12y + 1$
c_4	$y^{18} + y^{17} + \cdots - 3y + 1$
c_5, c_9	$y^{18} + 12y^{17} + \cdots + 116y + 25$
c_6	$y^{18} + 11y^{17} + \cdots - 10y + 1$
c_7, c_8, c_{11} c_{12}	$y^{18} - 20y^{17} + \cdots - 20y + 1$
c_{10}	$y^{18} - 3y^{17} + \cdots + y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.034780 + 0.909417I$ $a = -1.54704 - 0.01895I$ $b = 0.338766 - 0.248147I$	$-6.97448 + 1.13968I$	$4.89374 - 0.18325I$
$u = 0.034780 - 0.909417I$ $a = -1.54704 + 0.01895I$ $b = 0.338766 + 0.248147I$	$-6.97448 - 1.13968I$	$4.89374 + 0.18325I$
$u = 1.207980 + 0.098270I$ $a = 0.739289 - 0.918515I$ $b = -1.354920 + 0.330046I$	$4.03681 + 2.12143I$	$15.7293 - 1.9822I$
$u = 1.207980 - 0.098270I$ $a = 0.739289 + 0.918515I$ $b = -1.354920 - 0.330046I$	$4.03681 - 2.12143I$	$15.7293 + 1.9822I$
$u = -1.221290 + 0.000878I$ $a = 1.034340 + 0.008877I$ $b = -1.83950 - 1.59017I$	$1.08464 + 4.68616I$	$9.18075 - 6.62870I$
$u = -1.221290 - 0.000878I$ $a = 1.034340 - 0.008877I$ $b = -1.83950 + 1.59017I$	$1.08464 - 4.68616I$	$9.18075 + 6.62870I$
$u = -1.242500 + 0.470628I$ $a = -0.780988 + 0.794704I$ $b = 1.46588 - 0.99279I$	$-3.02478 - 6.13837I$	$6.43166 + 4.31912I$
$u = -1.242500 - 0.470628I$ $a = -0.780988 - 0.794704I$ $b = 1.46588 + 0.99279I$	$-3.02478 + 6.13837I$	$6.43166 - 4.31912I$
$u = 1.297070 + 0.392739I$ $a = -0.598955 - 0.773625I$ $b = 1.81748 + 1.61626I$	$-3.07920 + 3.40899I$	$8.53631 - 2.87922I$
$u = 1.297070 - 0.392739I$ $a = -0.598955 + 0.773625I$ $b = 1.81748 - 1.61626I$	$-3.07920 - 3.40899I$	$8.53631 + 2.87922I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.53345 + 0.10123I$ $a = -0.292336 - 0.163807I$ $b = 0.743032 - 0.190463I$	$5.16035 + 6.11216I$	$16.2770 - 5.8147I$
$u = 1.53345 - 0.10123I$ $a = -0.292336 + 0.163807I$ $b = 0.743032 + 0.190463I$	$5.16035 - 6.11216I$	$16.2770 + 5.8147I$
$u = -1.56582 + 0.04096I$ $a = -0.315755 + 0.060524I$ $b = 1.35534 - 0.49741I$	$8.11860 + 0.22024I$	$22.9414 - 14.5563I$
$u = -1.56582 - 0.04096I$ $a = -0.315755 - 0.060524I$ $b = 1.35534 + 0.49741I$	$8.11860 - 0.22024I$	$22.9414 + 14.5563I$
$u = -0.403896 + 0.125852I$ $a = -2.15630 + 0.13786I$ $b = 0.415201 + 0.902527I$	$-1.63695 - 4.97346I$	$9.65134 + 6.36185I$
$u = -0.403896 - 0.125852I$ $a = -2.15630 - 0.13786I$ $b = 0.415201 - 0.902527I$	$-1.63695 + 4.97346I$	$9.65134 - 6.36185I$
$u = 0.360211 + 0.184792I$ $a = -2.08226 - 0.15931I$ $b = 0.558708 + 0.874453I$	$1.24981 - 1.03640I$	$10.85847 + 2.38119I$
$u = 0.360211 - 0.184792I$ $a = -2.08226 + 0.15931I$ $b = 0.558708 - 0.874453I$	$1.24981 + 1.03640I$	$10.85847 - 2.38119I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{18}-11u^{17}+\cdots-39u+5)(u^{72}+6u^{71}+\cdots-38390u+1825)$
c_2	$(u^{18}+7u^{17}+\cdots+3u+1)(u^{72}+6u^{71}+\cdots-228u+3)$
c_3	$(u^{18}+2u^{16}+\cdots-6u^2+1)(u^{72}-u^{71}+\cdots-34023u-7187)$
c_4	$(u^{18}-u^{17}+\cdots-u+1)(u^{72}-9u^{70}+\cdots-3368u+431)$
c_5	$(u^{18}-2u^{17}+\cdots-8u+5)(u^{72}-3u^{71}+\cdots+99u-9)$
c_6	$(u^{18}+3u^{17}+\cdots-6u+1)(u^{72}-2u^{71}+\cdots-1062455u+98953)$
c_7, c_8	$(u^{18}-10u^{16}+\cdots-10u^2+1)(u^{72}-u^{71}+\cdots+53u-13)$
c_9	$(u^{18}+2u^{17}+\cdots+8u+5)(u^{72}-3u^{71}+\cdots+99u-9)$
c_{10}	$(u^{18}-u^{17}+\cdots-u+1)(u^{72}-6u^{71}+\cdots-1644u+271)$
c_{11}, c_{12}	$(u^{18}-10u^{16}+\cdots-10u^2+1)(u^{72}-u^{71}+\cdots+53u-13)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{18}-3y^{17}+\cdots+169y+25)$ $\cdot(y^{72}-62y^{71}+\cdots-343686400y+3330625)$
c_2	$(y^{18}+y^{17}+\cdots-7y+1)(y^{72}+14y^{71}+\cdots-66864y+9)$
c_3	$(y^{18}+4y^{17}+\cdots-12y+1)$ $\cdot(y^{72}+61y^{71}+\cdots+1453616311y+51652969)$
c_4	$(y^{18}+y^{17}+\cdots-3y+1)(y^{72}-18y^{71}+\cdots-3.52725\times10^{7}y+185761)$
c_5, c_9	$(y^{18}+12y^{17}+\cdots+116y+25)(y^{72}+53y^{71}+\cdots-5265y+81)$
c_6	$(y^{18}+11y^{17}+\cdots-10y+1)$ $\cdot(y^{72}+44y^{71}+\cdots-139414609387y+9791696209)$
c_7, c_8, c_{11} c_{12}	$(y^{18}-20y^{17}+\cdots-20y+1)(y^{72}-59y^{71}+\cdots+2755y+169)$
c_{10}	$(y^{18}-3y^{17}+\cdots+y+1)(y^{72}+14y^{71}+\cdots+1440312y+73441)$