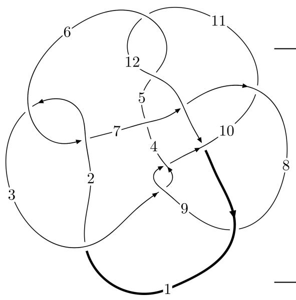
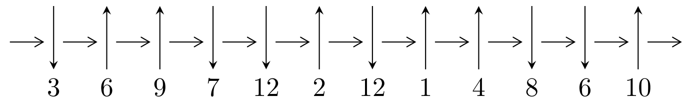
$12n_{0448}$ ($K12n_{0448}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle &-5.53148 \times 10^{174} u^{69} - 2.38859 \times 10^{175} u^{68} + \cdots + 3.44094 \times 10^{175} b - 1.21041 \times 10^{177},\\
&2.30131 \times 10^{177} u^{69} + 1.00000 \times 10^{178} u^{68} + \cdots + 6.43455 \times 10^{177} a + 4.92351 \times 10^{179},\\
&u^{70} + 5u^{69} + \cdots + 133u + 187\rangle\\
I_2^u = \langle &-1290033u^{15} - 1131359u^{14} + \cdots + 1197778b + 2926203,\\
&953271u^{15} + 281899u^{14} + \cdots + 1197778a - 2560769,\\
&u^{16} - 4u^{14} + 7u^{13} + 6u^{12} - 35u^{11} + 5u^{10} + 78u^9 - 22u^8 - 81u^7 + 26u^6 + 40u^5 - 9u^4 - 8u^3 - u^2 + 1\rangle
\end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 86 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. $\boldsymbol{I_1^u = \langle -5.53\times 10^{174}u^{69} - 2.39\times 10^{175}u^{68} + \cdots + 3.44\times 10^{175}b - 1.21\times 10^{177},\ 2.30\times 10^{177}u^{69} + 1.00\times 10^{178}u^{68} + \cdots + 6.43\times 10^{177}a + 4.92\times 10^{179},\ u^{70} + 5u^{69} + \cdots + 133u + 187\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_9 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-0.357648u^{69} - 1.55411u^{68} + \cdots + 58.4125u - 76.5167\\0.160755u^{69} + 0.694167u^{68} + \cdots - 18.3617u + 35.1769\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}u\\-u^3 + u\end{pmatrix}$$
$$a_2 = \begin{pmatrix}-0.604140u^{69} - 2.42601u^{68} + \cdots + 35.7773u - 123.764\\0.131251u^{69} + 0.509409u^{68} + \cdots - 7.76498u + 21.3345\end{pmatrix}$$
$$a_1 = \begin{pmatrix}-0.472890u^{69} - 1.91660u^{68} + \cdots + 28.0123u - 102.430\\0.131251u^{69} + 0.509409u^{68} + \cdots - 7.76498u + 21.3345\end{pmatrix}$$
$$a_8 = \begin{pmatrix}0.275335u^{69} + 1.10381u^{68} + \cdots - 17.6228u + 17.7511\\0.0632866u^{69} + 0.331110u^{68} + \cdots - 27.9242u - 5.29801\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}-0.667462u^{69} - 2.66521u^{68} + \cdots + 34.6405u - 145.026\\0.116091u^{69} + 0.444757u^{68} + \cdots - 7.69700u + 20.6722\end{pmatrix}$$
$$a_5 = \begin{pmatrix}-0.951234u^{69} - 3.74486u^{68} + \cdots + 57.2709u - 233.605\\0.227979u^{69} + 0.806971u^{68} + \cdots - 7.92854u + 76.2656\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-0.230826u^{69} - 0.796506u^{68} + \cdots + 7.27297u - 94.3983\\-0.0228490u^{69} - 0.253480u^{68} + \cdots + 19.3716u + 36.8622\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-0.131055u^{69} - 0.396858u^{68} + \cdots - 40.2047u - 27.6191\\-0.0330884u^{69} - 0.0924880u^{68} + \cdots - 10.5368u - 26.3188\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.760434u^{69} - 3.35415u^{68} + \cdots + 44.1683u - 94.2290$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$4(4u^{70} + 131u^{69} + \cdots + 48u + 1)$
c_2, c_6	$2(2u^{70} - 7u^{69} + \cdots + 24u^2 + 1)$
c_3, c_9	$u^{70} + 5u^{69} + \cdots + 133u + 187$
c_4	$u^{70} - 5u^{69} + \cdots - 149u - 23$
c_5, c_{11}	$2(2u^{70} - u^{69} + \cdots + 4385u + 4757)$
c_7	$2(2u^{70} - u^{69} + \cdots + 5245u + 337)$
c_8	$u^{70} - 3u^{69} + \cdots - 1069u + 284$
c_{10}	$u^{70} - 5u^{69} + \cdots + 187129u - 210478$
c_{12}	$4(4u^{70} + 49u^{69} + \cdots + 17u + 1)$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$16(16y^{70} - 209y^{69} + \cdots + 68y + 1)$
c_2, c_6	$4(4y^{70} + 131y^{69} + \cdots + 48y + 1)$
c_3, c_9	$y^{70} - 43y^{69} + \cdots - 380095y + 34969$
c_4	$y^{70} - 91y^{69} + \cdots - 5733y + 529$
c_5, c_{11}	$4(4y^{70} - 297y^{69} + \cdots - 5.60955 \times 10^{8}y + 2.26290 \times 10^{7})$
c_7	$4(4y^{70} - 321y^{69} + \cdots - 1.42558 \times 10^{7}y + 113569)$
c_8	$y^{70} - 13y^{69} + \cdots - 1442097y + 80656$
c_{10}	$y^{70} - 105y^{69} + \cdots - 745406611913y + 44300988484$
c_{12}	$16(16y^{70} - 345y^{69} + \cdots - 19y + 1)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.464599 + 0.883560I$ $a = 1.159180 + 0.080014I$ $b = -0.192943 + 1.274430I$	$-11.04220 + 1.60100I$	$-6.10686 + 0.I$
$u = -0.464599 - 0.883560I$ $a = 1.159180 - 0.080014I$ $b = -0.192943 - 1.274430I$	$-11.04220 - 1.60100I$	$-6.10686 + 0.I$
$u = -0.979753 + 0.210842I$ $a = 2.34254 - 0.46008I$ $b = -0.772034 + 0.883693I$	$1.58904 - 5.03788I$	$0. + 6.76160I$
$u = -0.979753 - 0.210842I$ $a = 2.34254 + 0.46008I$ $b = -0.772034 - 0.883693I$	$1.58904 + 5.03788I$	$0. - 6.76160I$
$u = -0.700302 + 0.719629I$ $a = -0.993946 - 0.751903I$ $b = 0.030140 - 0.832344I$	$-2.63354 - 1.54336I$	0
$u = -0.700302 - 0.719629I$ $a = -0.993946 + 0.751903I$ $b = 0.030140 + 0.832344I$	$-2.63354 + 1.54336I$	0
$u = -0.005359 + 1.009280I$ $a = 0.816422 - 0.387914I$ $b = -0.844609 - 0.315485I$	$-5.80873 - 4.94651I$	$0. + 3.47805I$
$u = -0.005359 - 1.009280I$ $a = 0.816422 + 0.387914I$ $b = -0.844609 + 0.315485I$	$-5.80873 + 4.94651I$	$0. - 3.47805I$
$u = 1.015010 + 0.071788I$ $a = 1.84250 + 0.88128I$ $b = -0.714598 - 1.034220I$	$1.19682 + 0.83148I$	0
$u = 1.015010 - 0.071788I$ $a = 1.84250 - 0.88128I$ $b = -0.714598 + 1.034220I$	$1.19682 - 0.83148I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.955337+0.359418I$ $a=-0.886703-0.633142I$ $b=\ \ 0.160983-1.036430I$	$-1.42067-2.70624I$	0
$u=-0.955337-0.359418I$ $a=-0.886703+0.633142I$ $b=\ \ 0.160983+1.036430I$	$-1.42067+2.70624I$	0
$u=\ \ 0.298324+0.928107I$ $a=-1.228530+0.434075I$ $b=\ \ 0.622819+0.942231I$	$-0.05346+2.92988I$	$-3.13586+0.I$
$u=\ \ 0.298324-0.928107I$ $a=-1.228530-0.434075I$ $b=\ \ 0.622819-0.942231I$	$-0.05346-2.92988I$	$-3.13586+0.I$
$u=-0.781018+0.554341I$ $a=-0.31978-1.78763I$ $b=\ \ 0.442194-0.572328I$	$-3.82658-3.59438I$	$-3.04697+8.28909I$
$u=-0.781018-0.554341I$ $a=-0.31978+1.78763I$ $b=\ \ 0.442194+0.572328I$	$-3.82658+3.59438I$	$-3.04697-8.28909I$
$u=\ \ 1.05918$ $a=-2.48414$ $b=\ \ 2.15607$	-0.181143	59.2940
$u=\ \ 0.915256+0.029276I$ $a=-0.099666-0.493144I$ $b=\ \ 0.17584+1.44219I$	$0.571914+0.371518I$	$2.08669+4.04564I$
$u=\ \ 0.915256-0.029276I$ $a=-0.099666+0.493144I$ $b=\ \ 0.17584-1.44219I$	$0.571914-0.371518I$	$2.08669-4.04564I$
$u=-0.906146+0.074934I$ $a=-3.73501-0.59930I$ $b=\ \ 0.431575+0.671244I$	$-4.02627-1.96972I$	$-0.155162-1.208213I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.906146-0.074934I$ $a=-3.73501+0.59930I$ $b=\ \ 0.431575-0.671244I$	$-4.02627+1.96972I$	$-0.155162+1.208213I$
$u=\ \ 1.09514$ $a=-0.943160$ $b=\ \ 0.676322$	2.04249	0
$u=-1.016640+0.503840I$ $a=\ \ 0.445291-0.380585I$ $b=-0.04953+1.48446I$	$-9.31077-6.63658I$	0
$u=-1.016640-0.503840I$ $a=\ \ 0.445291+0.380585I$ $b=-0.04953-1.48446I$	$-9.31077+6.63658I$	0
$u=\ \ 1.149990+0.209744I$ $a=-2.22769-1.61595I$ $b=\ \ 0.482390+1.005790I$	$-5.19048+5.83129I$	0
$u=\ \ 1.149990-0.209744I$ $a=-2.22769+1.61595I$ $b=\ \ 0.482390-1.005790I$	$-5.19048-5.83129I$	0
$u=\ \ 1.034100+0.567938I$ $a=\ \ 0.681424+0.467191I$ $b=\ \ 0.462907-1.023170I$	$-5.28639-0.22576I$	0
$u=\ \ 1.034100-0.567938I$ $a=\ \ 0.681424-0.467191I$ $b=\ \ 0.462907+1.023170I$	$-5.28639+0.22576I$	0
$u=-0.391578+0.720386I$ $a=-0.642454-0.037102I$ $b=\ \ 0.605943+0.816528I$	$0.38215+1.91370I$	$-0.15986-5.17626I$
$u=-0.391578-0.720386I$ $a=-0.642454+0.037102I$ $b=\ \ 0.605943-0.816528I$	$0.38215-1.91370I$	$-0.15986+5.17626I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.223040 + 0.318759I$ $a = -1.68312 + 0.43802I$ $b = 0.77584 - 1.27813I$	$-3.16283 - 7.92717I$	0
$u = -1.223040 - 0.318759I$ $a = -1.68312 - 0.43802I$ $b = 0.77584 + 1.27813I$	$-3.16283 + 7.92717I$	0
$u = 1.188100 + 0.449897I$ $a = -1.57614 + 0.48371I$ $b = 0.527707 + 1.135380I$	$2.16637 + 8.43711I$	0
$u = 1.188100 - 0.449897I$ $a = -1.57614 - 0.48371I$ $b = 0.527707 - 1.135380I$	$2.16637 - 8.43711I$	0
$u = -0.033746 + 1.275580I$ $a = 0.637310 - 0.236491I$ $b = -0.597078 - 1.151310I$	$-8.27588 + 10.26740I$	0
$u = -0.033746 - 1.275580I$ $a = 0.637310 + 0.236491I$ $b = -0.597078 + 1.151310I$	$-8.27588 - 10.26740I$	0
$u = -1.266110 + 0.223855I$ $a = -0.552498 - 0.286672I$ $b = 0.653293 + 0.084722I$	$4.87564 - 3.90309I$	0
$u = -1.266110 - 0.223855I$ $a = -0.552498 + 0.286672I$ $b = 0.653293 - 0.084722I$	$4.87564 + 3.90309I$	0
$u = 0.253601 + 0.655257I$ $a = -0.523537 + 1.271420I$ $b = -0.392653 + 0.946500I$	$-0.72586 - 4.14260I$	$-5.59399 + 3.21010I$
$u = 0.253601 - 0.655257I$ $a = -0.523537 - 1.271420I$ $b = -0.392653 - 0.946500I$	$-0.72586 + 4.14260I$	$-5.59399 - 3.21010I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.589808+0.186046I$ $a=-0.431512-0.260037I$ $b=-0.781861-0.026540I$	$-3.87088+0.03004I$	$-1.022144+0.715959I$
$u=-0.589808-0.186046I$ $a=-0.431512+0.260037I$ $b=-0.781861+0.026540I$	$-3.87088-0.03004I$	$-1.022144-0.715959I$
$u=0.233481+0.564982I$ $a=-0.158219-0.884725I$ $b=-0.516928-1.202080I$	$-7.20734+4.68280I$	$-4.29878-2.45438I$
$u=0.233481-0.564982I$ $a=-0.158219+0.884725I$ $b=-0.516928+1.202080I$	$-7.20734-4.68280I$	$-4.29878+2.45438I$
$u=1.328310+0.413029I$ $a=0.900655-0.938285I$ $b=-0.832474+0.700137I$	$5.32908+2.46914I$	0
$u=1.328310-0.413029I$ $a=0.900655+0.938285I$ $b=-0.832474-0.700137I$	$5.32908-2.46914I$	0
$u=0.599039+0.030720I$ $a=0.56751-1.97937I$ $b=-0.453454-1.205370I$	$-7.42388+4.44358I$	$-6.05332+3.21543I$
$u=0.599039-0.030720I$ $a=0.56751+1.97937I$ $b=-0.453454+1.205370I$	$-7.42388-4.44358I$	$-6.05332-3.21543I$
$u=-1.382840+0.227853I$ $a=0.473367-0.341147I$ $b=-0.092314+0.202393I$	$5.13577-3.94328I$	0
$u=-1.382840-0.227853I$ $a=0.473367+0.341147I$ $b=-0.092314-0.202393I$	$5.13577+3.94328I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.31486+0.52213I$ $a=\ \ 1.93164+0.21624I$ $b=-0.735129+1.011560I$	$4.37815-8.33071I$	0
$u=-1.31486-0.52213I$ $a=\ \ 1.93164-0.21624I$ $b=-0.735129-1.011560I$	$4.37815+8.33071I$	0
$u=\ \ 1.32537+0.51263I$ $a=-1.157920+0.713920I$ $b=\ \ 1.074040-0.464067I$	$-1.69439+10.36170I$	0
$u=\ \ 1.32537-0.51263I$ $a=-1.157920-0.713920I$ $b=\ \ 1.074040+0.464067I$	$-1.69439-10.36170I$	0
$u=\ \ 0.252788+0.506991I$ $a=-0.532657-0.407831I$ $b=-0.153191+0.710555I$	$0.147499+1.102550I$	$0.28735-3.57953I$
$u=\ \ 0.252788-0.506991I$ $a=-0.532657+0.407831I$ $b=-0.153191-0.710555I$	$0.147499-1.102550I$	$0.28735+3.57953I$
$u=-1.41135+0.30987I$ $a=\ \ 0.828279+0.264347I$ $b=-0.549869-0.290535I$	$5.28134-4.06482I$	0
$u=-1.41135-0.30987I$ $a=\ \ 0.828279-0.264347I$ $b=-0.549869+0.290535I$	$5.28134+4.06482I$	0
$u=\ \ 0.194477+0.473241I$ $a=-0.656035-0.310197I$ $b=\ \ 0.089223+0.416326I$	$0.130111+1.160000I$	$1.63322-5.18662I$
$u=\ \ 0.194477-0.473241I$ $a=-0.656035+0.310197I$ $b=\ \ 0.089223-0.416326I$	$0.130111-1.160000I$	$1.63322+5.18662I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.39235 + 0.60772I$ $a = -1.73389 + 0.01315I$ $b = 0.715593 - 1.199470I$	$-4.0124 - 16.7820I$	0
$u = -1.39235 - 0.60772I$ $a = -1.73389 - 0.01315I$ $b = 0.715593 + 1.199470I$	$-4.0124 + 16.7820I$	0
$u = 1.42511 + 0.56986I$ $a = 1.42144 - 0.06516I$ $b = -0.546297 - 1.095260I$	$3.08348 + 8.62198I$	0
$u = 1.42511 - 0.56986I$ $a = 1.42144 + 0.06516I$ $b = -0.546297 + 1.095260I$	$3.08348 - 8.62198I$	0
$u = -1.65338 + 0.27922I$ $a = -1.48835 - 0.26253I$ $b = 0.440671 - 0.719090I$	$-1.64855 - 1.14131I$	0
$u = -1.65338 - 0.27922I$ $a = -1.48835 + 0.26253I$ $b = 0.440671 + 0.719090I$	$-1.64855 + 1.14131I$	0
$u = 1.99926 + 0.23997I$ $a = -0.880769 + 0.552125I$ $b = 0.480145 - 0.968668I$	$-2.50789 - 2.71379I$	0
$u = 1.99926 - 0.23997I$ $a = -0.880769 - 0.552125I$ $b = 0.480145 + 0.968668I$	$-2.50789 + 2.71379I$	0
$u = -0.32117 + 2.20502I$ $a = -0.784033 - 0.270740I$ $b = 0.387453 - 0.868439I$	$-1.99674 - 1.66389I$	0
$u = -0.32117 - 2.20502I$ $a = -0.784033 + 0.270740I$ $b = 0.387453 + 0.868439I$	$-1.99674 + 1.66389I$	0

II.
$\boldsymbol{I_2^u = \langle -1.29\times 10^6 u^{15} - 1.13\times 10^6 u^{14} + \cdots + 1.20\times 10^6 b + 2.93\times 10^6,\ 9.53\times 10^5 u^{15} + 2.82\times 10^5 u^{14} + \cdots + 1.20\times 10^6 a - 2.56\times 10^6,\ u^{16} - 4u^{14} + \cdots - u^2 + 1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -0.795866u^{15} - 0.235352u^{14} + \cdots + 4.26342u + 2.13793 \\ 1.07702u^{15} + 0.944548u^{14} + \cdots - 1.60547u - 2.44303 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1.84022u^{15} + 1.64231u^{14} + \cdots - 1.35878u - 3.85692 \\ -1.74639u^{15} - 0.653460u^{14} + \cdots + 2.11509u + 0.759845 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0.0938287u^{15} + 0.988846u^{14} + \cdots + 0.756304u - 3.09708 \\ -1.74639u^{15} - 0.653460u^{14} + \cdots + 2.11509u + 0.759845 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0.382772u^{15} - 1.57347u^{14} + \cdots - 3.52755u + 3.36873 \\ 1.82910u^{15} - 0.0135134u^{14} + \cdots - 2.94809u + 0.179244 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 1.00004u^{15} + 1.75825u^{14} + \cdots - 0.705337u - 4.34914 \\ -1.24080u^{15} - 0.124557u^{14} + \cdots + 1.55966u + 0.277191 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0.810195u^{15} - 1.07195u^{14} + \cdots + 1.39686u + 3.07255 \\ 1.92689u^{15} + 0.984967u^{14} + \cdots - 2.74097u - 1.72000 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -0.551846u^{15} + 0.0325922u^{14} + \cdots - 0.915515u + 0.502171 \\ 1.10607u^{15} + 0.836355u^{14} + \cdots + 0.354325u - 0.956254 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -1.27414u^{15} + 1.26991u^{14} + \cdots + 3.19297u - 2.72388 \\ -0.979430u^{15} + 0.753485u^{14} + \cdots + 0.0728900u - 1.30945 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{83543923}{19164448}u^{15} - \frac{52495481}{19164448}u^{14} + \cdots - \frac{23352059}{19164448}u + \frac{87198417}{19164448}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$4(4u^{16} - 31u^{15} + \cdots - 9u + 1)$
c_2	$2(2u^{16} - 3u^{15} + \cdots - 3u + 1)$
c_3	$u^{16} - 4u^{14} + \cdots - u^2 + 1$
c_4	$u^{16} - 6u^{15} + \cdots - 90u + 11$
c_5	$2(2u^{16} - 7u^{15} + \cdots + 2u + 1)$
c_6	$2(2u^{16} + 3u^{15} + \cdots + 3u + 1)$
c_7	$2(2u^{16} + 5u^{15} + \cdots - 2u + 1)$
c_8	$u^{16} - 2u^{15} + \cdots - 13u + 4$
c_9	$u^{16} - 4u^{14} + \cdots - u^2 + 1$
c_{10}	$u^{16} + 6u^{15} + \cdots + 29u + 26$
c_{11}	$2(2u^{16} + 7u^{15} + \cdots - 2u + 1)$
c_{12}	$4(4u^{16} - 27u^{15} + \cdots - 10u + 1)$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$16(16y^{16}+127y^{15}+\cdots+9y+1)$
c_2, c_6	$4(4y^{16}+31y^{15}+\cdots+9y+1)$
c_3, c_9	$y^{16}-8y^{15}+\cdots-2y+1$
c_4	$y^{16}-8y^{15}+\cdots-752y+121$
c_5, c_{11}	$4(4y^{16}+3y^{15}+\cdots-8y+1)$
c_7	$4(4y^{16}-37y^{15}+\cdots+14y+1)$
c_8	$y^{16}-6y^{15}+\cdots+135y+16$
c_{10}	$y^{16}+2y^{15}+\cdots-269y+676$
c_{12}	$16(16y^{16}+55y^{15}+\cdots-10y+1)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.797657 + 0.343857I$ $a = 2.62392 - 1.53560I$ $b = 0.148206 - 0.607000I$	$-4.61528 + 2.55936I$	$-8.49339 - 5.18844I$
$u = 0.797657 - 0.343857I$ $a = 2.62392 + 1.53560I$ $b = 0.148206 + 0.607000I$	$-4.61528 - 2.55936I$	$-8.49339 + 5.18844I$
$u = -0.707983 + 0.173652I$ $a = 0.483804 - 1.222550I$ $b = 0.378031 - 1.204200I$	$-7.26365 - 4.94000I$	$-1.72505 + 10.21759I$
$u = -0.707983 - 0.173652I$ $a = 0.483804 + 1.222550I$ $b = 0.378031 + 1.204200I$	$-7.26365 + 4.94000I$	$-1.72505 - 10.21759I$
$u = 0.644670 + 0.122026I$ $a = 1.26759 - 1.06765I$ $b = -0.639556 + 1.085420I$	$-0.125269 - 0.619604I$	$-4.11600 - 1.34409I$
$u = 0.644670 - 0.122026I$ $a = 1.26759 + 1.06765I$ $b = -0.639556 - 1.085420I$	$-0.125269 + 0.619604I$	$-4.11600 + 1.34409I$
$u = -1.377210 + 0.155372I$ $a = -0.648145 + 0.541114I$ $b = 0.447066 - 0.459032I$	$5.30998 - 4.36295I$	$7.4979 + 13.3422I$
$u = -1.377210 - 0.155372I$ $a = -0.648145 - 0.541114I$ $b = 0.447066 + 0.459032I$	$5.30998 + 4.36295I$	$7.4979 - 13.3422I$
$u = 1.35263 + 0.51219I$ $a = -1.79117 + 0.24331I$ $b = 0.682041 + 1.016320I$	$5.25074 + 8.71932I$	$6.03301 - 7.80268I$
$u = 1.35263 - 0.51219I$ $a = -1.79117 - 0.24331I$ $b = 0.682041 - 1.016320I$	$5.25074 - 8.71932I$	$6.03301 + 7.80268I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.41542 + 0.38827I$ $a = -0.745369 - 0.818937I$ $b = 0.698052 + 0.669887I$	$6.31275 - 3.35729I$	$6.36373 + 1.01374I$
$u = -1.41542 - 0.38827I$ $a = -0.745369 + 0.818937I$ $b = 0.698052 - 0.669887I$	$6.31275 + 3.35729I$	$6.36373 - 1.01374I$
$u = -0.121039 + 0.395800I$ $a = 1.70352 + 2.40451I$ $b = -0.596112 + 0.848095I$	$0.37584 - 4.14012I$	$1.56359 + 5.26099I$
$u = -0.121039 - 0.395800I$ $a = 1.70352 - 2.40451I$ $b = -0.596112 - 0.848095I$	$0.37584 + 4.14012I$	$1.56359 - 5.26099I$
$u = 0.82670 + 1.79548I$ $a = 0.855849 - 0.349758I$ $b = -0.367727 - 0.826736I$	$-1.95525 + 1.59611I$	$37.6731 + 11.4660I$
$u = 0.82670 - 1.79548I$ $a = 0.855849 + 0.349758I$ $b = -0.367727 + 0.826736I$	$-1.95525 - 1.59611I$	$37.6731 - 11.4660I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$16(4u^{16} - 31u^{15} + \cdots - 9u + 1)(4u^{70} + 131u^{69} + \cdots + 48u + 1)$
c_2	$4(2u^{16} - 3u^{15} + \cdots - 3u + 1)(2u^{70} - 7u^{69} + \cdots + 24u^2 + 1)$
c_3	$(u^{16} - 4u^{14} + \cdots - u^2 + 1)(u^{70} + 5u^{69} + \cdots + 133u + 187)$
c_4	$(u^{16} - 6u^{15} + \cdots - 90u + 11)(u^{70} - 5u^{69} + \cdots - 149u - 23)$
c_5	$4(2u^{16} - 7u^{15} + \cdots + 2u + 1)(2u^{70} - u^{69} + \cdots + 4385u + 4757)$
c_6	$4(2u^{16} + 3u^{15} + \cdots + 3u + 1)(2u^{70} - 7u^{69} + \cdots + 24u^2 + 1)$
c_7	$4(2u^{16} + 5u^{15} + \cdots - 2u + 1)(2u^{70} - u^{69} + \cdots + 5245u + 337)$
c_8	$(u^{16} - 2u^{15} + \cdots - 13u + 4)(u^{70} - 3u^{69} + \cdots - 1069u + 284)$
c_9	$(u^{16} - 4u^{14} + \cdots - u^2 + 1)(u^{70} + 5u^{69} + \cdots + 133u + 187)$
c_{10}	$(u^{16} + 6u^{15} + \cdots + 29u + 26)(u^{70} - 5u^{69} + \cdots + 187129u - 210478)$
c_{11}	$4(2u^{16} + 7u^{15} + \cdots - 2u + 1)(2u^{70} - u^{69} + \cdots + 4385u + 4757)$
c_{12}	$16(4u^{16} - 27u^{15} + \cdots - 10u + 1)(4u^{70} + 49u^{69} + \cdots + 17u + 1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$256(16y^{16}+127y^{15}+\cdots+9y+1)(16y^{70}-209y^{69}+\cdots+68y+1)$
c_2, c_6	$16(4y^{16}+31y^{15}+\cdots+9y+1)(4y^{70}+131y^{69}+\cdots+48y+1)$
c_3, c_9	$(y^{16}-8y^{15}+\cdots-2y+1)(y^{70}-43y^{69}+\cdots-380095y+34969)$
c_4	$(y^{16}-8y^{15}+\cdots-752y+121)(y^{70}-91y^{69}+\cdots-5733y+529)$
c_5, c_{11}	$16(4y^{16}+3y^{15}+\cdots-8y+1)$ $\cdot\,(4y^{70}-297y^{69}+\cdots-560955385y+22629049)$
c_7	$16(4y^{16}-37y^{15}+\cdots+14y+1)$ $\cdot\,(4y^{70}-321y^{69}+\cdots-14255815y+113569)$
c_8	$(y^{16}-6y^{15}+\cdots+135y+16)$ $\cdot\,(y^{70}-13y^{69}+\cdots-1442097y+80656)$
c_{10}	$(y^{16}+2y^{15}+\cdots-269y+676)$ $\cdot\,(y^{70}-105y^{69}+\cdots-745406611913y+44300988484)$
c_{12}	$256(16y^{16}+55y^{15}+\cdots-10y+1)(16y^{70}-345y^{69}+\cdots-19y+1)$