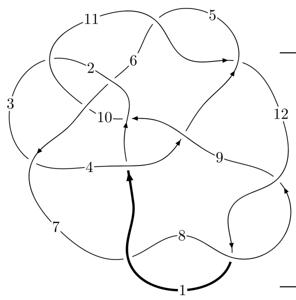
$12n_{0715}$ $(K12n_{0715})$



A knot diagram[1]

Linearized knot diagam

$$\to\downarrow_{4}\to\downarrow_{11}\to\downarrow_{7}\to\uparrow_{9}\to\uparrow_{11}\to\downarrow_{2}\to\uparrow_{1}\to\uparrow_{12}\to\downarrow_{2}\to\uparrow_{7}\to\uparrow_{5}\to\uparrow_{8}\to$$

Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & 4.60880 \times 10^{217} u^{59} + 2.22932 \times 10^{217} u^{58} + \cdots + 2.72986 \times 10^{221} b - 9.04649 \times 10^{220}, \\
& 2.36217 \times 10^{222} u^{59} + 8.17530 \times 10^{221} u^{58} + \cdots + 8.32334 \times 10^{224} a + 1.63524 \times 10^{225}, \\
& u^{60} + 31u^{58} + \cdots - 6806u + 3049 \rangle \\
I_2^u = \langle & 30594119u^{15} - 54613383u^{14} + \cdots + 339075961b + 341724092, \\
& -312874829u^{15} + 341866737u^{14} + \cdots + 339075961a - 448000694, \\
& u^{16} - u^{15} + 5u^{14} - 3u^{13} + 10u^{12} - 7u^{11} + u^{10} - 3u^9 + 10u^8 - u^7 - u^6 - 3u^5 + 11u^4 + 3u^3 - 4u^2 + 1 \rangle
\end{aligned}$$

* 2 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. $\boldsymbol{I^u_1 = \langle 4.61 \times 10^{217} u^{59} + 2.23 \times 10^{217} u^{58} + \cdots + 2.73 \times 10^{221} b - 9.05 \times 10^{220},\ 2.36 \times 10^{222} u^{59} + 8.18 \times 10^{221} u^{58} + \cdots + 8.32 \times 10^{224} a + 1.64 \times 10^{225},\ u^{60} + 31u^{58} + \cdots - 6806u + 3049 \rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -0.00283801u^{59} - 0.000982214u^{58} + \cdots - 46.8813u - 1.96465 \\ -0.000168829u^{59} - 0.0000816642u^{58} + \cdots - 3.57585u + 0.331390 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -0.000945087u^{59} + 0.000227941u^{58} + \cdots - 22.2070u + 11.7845 \\ -0.000433429u^{59} - 0.000247835u^{58} + \cdots - 8.68770u - 0.364595 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0.000218505u^{59} + 0.000327052u^{58} + \cdots + 4.01660u + 3.62050 \\ 0.000530540u^{59} - 0.0000863422u^{58} + \cdots + 10.7434u - 5.55537 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -0.00300684u^{59} - 0.00106388u^{58} + \cdots - 50.4571u - 1.63326 \\ -0.000168829u^{59} - 0.0000816642u^{58} + \cdots - 3.57585u + 0.331390 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -0.00300684u^{59} - 0.00106388u^{58} + \cdots - 50.4571u - 1.63326 \\ -0.0000163342u^{59} + 0.000121229u^{58} + \cdots - 1.64875u + 3.57516 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0.000720153u^{59} - 0.000752234u^{58} + \cdots + 22.6935u - 14.1062 \\ -0.000822043u^{59} + 0.000203348u^{58} + \cdots - 15.0493u + 9.22217 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -0.00155459u^{59} + 0.00108020u^{58} + \cdots - 39.1669u + 27.2099 \\ 0.000345116u^{59} - 0.000186298u^{58} + \cdots + 8.73955u - 6.17511 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -0.00120947u^{59} + 0.000893904u^{58} + \cdots - 30.4274u + 21.0348 \\ 0.000345116u^{59} - 0.000186298u^{58} + \cdots + 8.73955u - 6.17511 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -0.00175525u^{59} - 0.000468763u^{58} + \cdots - 34.3728u + 3.63194 \\ 0.000128794u^{59} - 0.000138534u^{58} + \cdots + 3.06900u - 1.69755 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.00272374u^{59} + 0.00105874u^{58} + \cdots + 53.4296u - 4.72817$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{60} - 8u^{59} + \cdots - 27u + 1$
c_2	$u^{60} + 31u^{58} + \cdots + 6806u + 3049$
c_3	$u^{60} - 4u^{58} + \cdots + 905u + 79$
c_4	$u^{60} + 3u^{59} + \cdots + 6612u + 977$
c_5, c_{11}	$u^{60} + 19u^{58} + \cdots + 1808u + 136$
c_6	$u^{60} + 3u^{59} + \cdots + 5062u + 484$
c_7, c_8, c_{12}	$u^{60} - 2u^{59} + \cdots + 12u + 1$
c_9	$u^{60} - 4u^{59} + \cdots + 232u + 8$
c_{10}	$u^{60} + 3u^{59} + \cdots + 1069u + 541$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{60} + 2y^{59} + \cdots - 233y + 1$
c_2	$y^{60} + 62y^{59} + \cdots + 271621986y + 9296401$
c_3	$y^{60} - 8y^{59} + \cdots - 193345y + 6241$
c_4	$y^{60} + 21y^{59} + \cdots + 18369806y + 954529$
c_5, c_{11}	$y^{60} + 38y^{59} + \cdots - 152832y + 18496$
c_6	$y^{60} + 63y^{59} + \cdots + 4369636y + 234256$
c_7, c_8, c_{12}	$y^{60} + 64y^{59} + \cdots - 6y + 1$
c_9	$y^{60} + 14y^{59} + \cdots + 2240y + 64$
c_{10}	$y^{60} - 75y^{59} + \cdots - 4777199y + 292681$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.643501 + 0.773438I$ $a = 0.477987 - 0.525534I$ $b = -0.480857 + 0.417860I$	$-1.32280 - 2.56367I$	$5.00187 + 5.20719I$
$u = 0.643501 - 0.773438I$ $a = 0.477987 + 0.525534I$ $b = -0.480857 - 0.417860I$	$-1.32280 + 2.56367I$	$5.00187 - 5.20719I$
$u = 0.926449 + 0.415748I$ $a = 0.352525 + 0.205719I$ $b = 0.272409 + 0.505392I$	$-1.76277 - 1.27508I$	$3.66951 + 0.I$
$u = 0.926449 - 0.415748I$ $a = 0.352525 - 0.205719I$ $b = 0.272409 - 0.505392I$	$-1.76277 + 1.27508I$	$3.66951 + 0.I$
$u = 0.053170 + 0.925086I$ $a = 0.623976 - 0.343376I$ $b = -1.53558 + 0.06817I$	$-1.87416 - 3.34982I$	$-1.36055 + 8.15563I$
$u = 0.053170 - 0.925086I$ $a = 0.623976 + 0.343376I$ $b = -1.53558 - 0.06817I$	$-1.87416 + 3.34982I$	$-1.36055 - 8.15563I$
$u = -0.500509 + 0.765670I$ $a = -1.83740 - 0.54894I$ $b = 0.75841 + 1.43263I$	$-4.99862 + 3.16468I$	$-14.6216 - 8.5416I$
$u = -0.500509 - 0.765670I$ $a = -1.83740 + 0.54894I$ $b = 0.75841 - 1.43263I$	$-4.99862 - 3.16468I$	$-14.6216 + 8.5416I$
$u = 0.034645 + 0.884579I$ $a = 0.286455 + 0.321976I$ $b = -1.59579 + 0.20592I$	$-9.60436 + 7.44720I$	$-1.12455 - 5.22316I$
$u = 0.034645 - 0.884579I$ $a = 0.286455 - 0.321976I$ $b = -1.59579 - 0.20592I$	$-9.60436 - 7.44720I$	$-1.12455 + 5.22316I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.544528 + 1.008840I$ $a = 0.813613 - 0.130165I$ $b = 0.488628 - 0.533810I$	$-6.88275 + 2.17208I$	0
$u = -0.544528 - 1.008840I$ $a = 0.813613 + 0.130165I$ $b = 0.488628 + 0.533810I$	$-6.88275 - 2.17208I$	0
$u = -0.318234 + 1.129480I$ $a = -0.32972 - 1.56989I$ $b = -0.46348 + 1.86984I$	$-3.89674 + 0.34222I$	0
$u = -0.318234 - 1.129480I$ $a = -0.32972 + 1.56989I$ $b = -0.46348 - 1.86984I$	$-3.89674 - 0.34222I$	0
$u = -0.378871 + 0.636122I$ $a = -2.18887 + 0.97531I$ $b = 0.262076 - 0.282529I$	$-10.56020 - 6.42506I$	$0.29601 + 1.69572I$
$u = -0.378871 - 0.636122I$ $a = -2.18887 - 0.97531I$ $b = 0.262076 + 0.282529I$	$-10.56020 + 6.42506I$	$0.29601 - 1.69572I$
$u = 0.596985 + 0.415802I$ $a = 0.630468 + 0.640731I$ $b = 0.421600 + 0.581478I$	$-1.70945 - 1.35880I$	$2.24467 + 5.29357I$
$u = 0.596985 - 0.415802I$ $a = 0.630468 - 0.640731I$ $b = 0.421600 - 0.581478I$	$-1.70945 + 1.35880I$	$2.24467 - 5.29357I$
$u = -1.295930 + 0.133460I$ $a = -0.279441 + 0.102123I$ $b = 0.068794 - 0.818384I$	$-1.99077 + 4.39001I$	0
$u = -1.295930 - 0.133460I$ $a = -0.279441 - 0.102123I$ $b = 0.068794 + 0.818384I$	$-1.99077 - 4.39001I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.540732+0.427519I$ $a=\ \ 0.760586+0.277873I$ $b=\ \ 1.34981-0.58688I$	$-8.08596+1.79714I$	$2.34826-0.92148I$
$u=-0.540732-0.427519I$ $a=\ \ 0.760586-0.277873I$ $b=\ \ 1.34981+0.58688I$	$-8.08596-1.79714I$	$2.34826+0.92148I$
$u=\ \ 0.345641+0.471474I$ $a=\ \ 1.388840-0.024076I$ $b=\ \ 0.015962-0.605849I$	$-4.31256+2.44729I$	$0.28400-3.32996I$
$u=\ \ 0.345641-0.471474I$ $a=\ \ 1.388840+0.024076I$ $b=\ \ 0.015962+0.605849I$	$-4.31256-2.44729I$	$0.28400+3.32996I$
$u=-1.29147+0.58402I$ $a=\ \ 0.565494-0.060409I$ $b=\ \ 0.438216-0.286617I$	$-7.55798+1.00360I$	0
$u=-1.29147-0.58402I$ $a=\ \ 0.565494+0.060409I$ $b=\ \ 0.438216+0.286617I$	$-7.55798-1.00360I$	0
$u=\ \ 0.05414+1.42407I$ $a=-0.319172+1.234000I$ $b=-0.01533-1.75620I$	$6.16440+0.67247I$	0
$u=\ \ 0.05414-1.42407I$ $a=-0.319172-1.234000I$ $b=-0.01533+1.75620I$	$6.16440-0.67247I$	0
$u=-0.298967+0.388601I$ $a=\ \ 1.068600+0.374239I$ $b=-0.238474+0.258177I$	$1.029620-0.495284I$	$8.01687+2.31808I$
$u=-0.298967-0.388601I$ $a=\ \ 1.068600-0.374239I$ $b=-0.238474-0.258177I$	$1.029620+0.495284I$	$8.01687-2.31808I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.32296 + 1.49533I$ $a = -0.014077 + 1.294100I$ $b = -0.62950 - 1.74634I$	$4.16311 - 5.16210I$	0
$u = 0.32296 - 1.49533I$ $a = -0.014077 - 1.294100I$ $b = -0.62950 + 1.74634I$	$4.16311 + 5.16210I$	0
$u = 1.53276 + 0.02218I$ $a = -0.430876 + 0.228519I$ $b = 0.008534 - 0.918471I$	$-8.47818 + 7.22559I$	0
$u = 1.53276 - 0.02218I$ $a = -0.430876 - 0.228519I$ $b = 0.008534 + 0.918471I$	$-8.47818 - 7.22559I$	0
$u = 0.160181 + 0.387104I$ $a = -3.57956 - 1.20981I$ $b = 0.505995 + 0.337305I$	$-3.56642 + 2.79917I$	$3.42811 - 0.46170I$
$u = 0.160181 - 0.387104I$ $a = -3.57956 + 1.20981I$ $b = 0.505995 - 0.337305I$	$-3.56642 - 2.79917I$	$3.42811 + 0.46170I$
$u = 0.206989 + 0.338042I$ $a = 1.055210 - 0.169889I$ $b = 0.929185 + 0.315681I$	$-1.68988 - 0.84367I$	$-1.15133 - 2.48572I$
$u = 0.206989 - 0.338042I$ $a = 1.055210 + 0.169889I$ $b = 0.929185 - 0.315681I$	$-1.68988 + 0.84367I$	$-1.15133 + 2.48572I$
$u = -0.53294 + 1.53814I$ $a = 0.207126 + 0.755558I$ $b = 0.57668 - 1.68015I$	$-3.90465 + 5.68518I$	0
$u = -0.53294 - 1.53814I$ $a = 0.207126 - 0.755558I$ $b = 0.57668 + 1.68015I$	$-3.90465 - 5.68518I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.34251 + 1.60989I$ $a = 0.257663 - 1.104060I$ $b = 0.313142 + 1.134510I$	$-0.04200 + 2.46645I$	0
$u = -0.34251 - 1.60989I$ $a = 0.257663 + 1.104060I$ $b = 0.313142 - 1.134510I$	$-0.04200 - 2.46645I$	0
$u = 0.37318 + 1.63255I$ $a = 0.196758 - 0.879828I$ $b = 0.39480 + 1.54627I$	$2.93179 - 4.03578I$	0
$u = 0.37318 - 1.63255I$ $a = 0.196758 + 0.879828I$ $b = 0.39480 - 1.54627I$	$2.93179 + 4.03578I$	0
$u = 0.07899 + 1.69652I$ $a = -0.205758 - 1.016470I$ $b = 0.04852 + 1.75392I$	$7.60928 - 4.45168I$	0
$u = 0.07899 - 1.69652I$ $a = -0.205758 + 1.016470I$ $b = 0.04852 - 1.75392I$	$7.60928 + 4.45168I$	0
$u = -0.48846 + 1.64668I$ $a = -0.076786 - 1.162360I$ $b = -0.55112 + 1.73815I$	$4.09640 + 10.99650I$	0
$u = -0.48846 - 1.64668I$ $a = -0.076786 + 1.162360I$ $b = -0.55112 - 1.73815I$	$4.09640 - 10.99650I$	0
$u = 0.95133 + 1.45075I$ $a = 0.334549 - 1.088470I$ $b = 0.08628 + 1.49845I$	$-0.33304 - 4.22189I$	0
$u = 0.95133 - 1.45075I$ $a = 0.334549 + 1.088470I$ $b = 0.08628 - 1.49845I$	$-0.33304 + 4.22189I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.67460 + 1.61393I$ $a = 0.214492 + 1.072810I$ $b = 0.09563 - 1.53472I$	$5.14342 + 3.33363I$	0
$u = -0.67460 - 1.61393I$ $a = 0.214492 - 1.072810I$ $b = 0.09563 + 1.53472I$	$5.14342 - 3.33363I$	0
$u = -0.05843 + 1.75203I$ $a = 0.238224 + 0.996234I$ $b = 0.301077 - 1.305630I$	$4.54407 + 0.89244I$	0
$u = -0.05843 - 1.75203I$ $a = 0.238224 - 0.996234I$ $b = 0.301077 + 1.305630I$	$4.54407 - 0.89244I$	0
$u = 0.64109 + 1.69574I$ $a = -0.124519 + 1.104800I$ $b = -0.52332 - 1.76203I$	$-2.9040 - 15.1991I$	0
$u = 0.64109 - 1.69574I$ $a = -0.124519 - 1.104800I$ $b = -0.52332 + 1.76203I$	$-2.9040 + 15.1991I$	0
$u = -0.18386 + 1.88121I$ $a = -0.161769 + 0.888934I$ $b = 0.08443 - 1.80565I$	$1.96683 + 7.20981I$	0
$u = -0.18386 - 1.88121I$ $a = -0.161769 - 0.888934I$ $b = 0.08443 + 1.80565I$	$1.96683 - 7.20981I$	0
$u = 0.52803 + 1.98863I$ $a = 0.197232 - 0.978791I$ $b = 0.11327 + 1.46699I$	$1.77020 - 3.01560I$	0
$u = 0.52803 - 1.98863I$ $a = 0.197232 + 0.978791I$ $b = 0.11327 - 1.46699I$	$1.77020 + 3.01560I$	0

II.

$\boldsymbol{I_2^u = \langle 3.06\times 10^7 u^{15} - 5.46\times 10^7 u^{14} + \cdots + 3.39\times 10^8 b + 3.42\times 10^8,\ -3.13\times 10^8 u^{15} + 3.42\times 10^8 u^{14} + \cdots + 3.39\times 10^8 a - 4.48\times 10^8,\ u^{16} - u^{15} + \cdots - 4u^2 + 1\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0.922728u^{15} - 1.00823u^{14} + \cdots + 1.66385u + 1.32124 \\ -0.0902279u^{15} + 0.161065u^{14} + \cdots + 0.181578u - 1.00781 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -0.832500u^{15} + 0.847165u^{14} + \cdots - 1.84543u + 1.68657 \\ 0.402236u^{15} - 0.549776u^{14} + \cdots - 0.832500u + 1.01467 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -0.555116u^{15} + 0.977164u^{14} + \cdots + 4.61473u - 2.80921 \\ -0.661929u^{15} + 1.03099u^{14} + \cdots + 1.18736u - 0.951848 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 0.832500u^{15} - 0.847165u^{14} + \cdots + 1.84543u + 0.313430 \\ -0.0902279u^{15} + 0.161065u^{14} + \cdots + 0.181578u - 1.00781 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0.832500u^{15} - 0.847165u^{14} + \cdots + 1.84543u + 0.313430 \\ 0.312008u^{15} - 0.388710u^{14} + \cdots - 0.650922u - 0.993145 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 1.94577u^{15} - 2.42341u^{14} + \cdots - 7.34438u + 0.702070 \\ 0.0154462u^{15} - 0.545396u^{14} + \cdots - 1.25235u + 0.998126 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -1.92294u^{15} + 1.59142u^{14} + \cdots + 5.80143u + 0.319406 \\ -0.0848705u^{15} + 0.506614u^{14} + \cdots + 2.23637u - 0.500984 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -2.00781u^{15} + 2.09804u^{14} + \cdots + 8.03780u - 0.181578 \\ -0.0848705u^{15} + 0.506614u^{14} + \cdots + 2.23637u - 0.500984 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -1.32494u^{15} + 2.35544u^{14} + \cdots + 3.78101u - 0.969814 \\ 0.286898u^{15} - 0.131334u^{14} + \cdots - 1.86529u + 0.366755 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{1384808610}{339075961}u^{15} - \frac{1263687753}{339075961}u^{14} + \cdots + \frac{226684056}{339075961}u - \frac{2103842549}{339075961}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{16} - 7u^{15} + \cdots - 3u + 1$
c_2	$u^{16} - u^{15} + \cdots - 4u^2 + 1$
c_3	$u^{16} + 5u^{15} + \cdots + 7u + 1$
c_4	$u^{16} + 2u^{14} + \cdots + 4u + 1$
c_5	$u^{16} - u^{15} + \cdots + 8u + 8$
c_6	$u^{16} + 2u^{15} + \cdots + 2u + 4$
c_7, c_8	$u^{16} - u^{15} + \cdots + 2u + 1$
c_9	$u^{16} + 3u^{15} + \cdots - 12u^2 + 8$
c_{10}	$u^{16} + 4u^{15} + \cdots + 7u + 1$
c_{11}	$u^{16} + u^{15} + \cdots - 8u + 8$
c_{12}	$u^{16} + u^{15} + \cdots - 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{16} + y^{15} + \cdots + 5y + 1$
c_2	$y^{16} + 9y^{15} + \cdots - 8y + 1$
c_3	$y^{16} - 13y^{15} + \cdots - 43y + 1$
c_4	$y^{16} + 4y^{15} + \cdots + 4y + 1$
c_5, c_{11}	$y^{16} + 13y^{15} + \cdots + 512y + 64$
c_6	$y^{16} + 6y^{15} + \cdots - 92y + 16$
c_7, c_8, c_{12}	$y^{16} + 19y^{15} + \cdots + 20y + 1$
c_9	$y^{16} - 3y^{15} + \cdots - 192y + 64$
c_{10}	$y^{16} - 8y^{15} + \cdots - 5y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.589845 + 0.800240I$ $a = 1.285810 - 0.335799I$ $b = -0.279376 + 1.265590I$	$-4.55161 - 2.96740I$	$1.92397 + 1.31396I$
$u = 0.589845 - 0.800240I$ $a = 1.285810 + 0.335799I$ $b = -0.279376 - 1.265590I$	$-4.55161 + 2.96740I$	$1.92397 - 1.31396I$
$u = -0.792730 + 0.515500I$ $a = 0.392996 - 0.239529I$ $b = 0.680353 - 0.403757I$	$-2.25688 + 1.35793I$	$-13.7316 - 4.6930I$
$u = -0.792730 - 0.515500I$ $a = 0.392996 + 0.239529I$ $b = 0.680353 + 0.403757I$	$-2.25688 - 1.35793I$	$-13.7316 + 4.6930I$
$u = 0.981379 + 0.390494I$ $a = 0.332946 + 0.042006I$ $b = 1.177310 + 0.586123I$	$-8.66211 - 1.81322I$	$-12.67811 + 2.30723I$
$u = 0.981379 - 0.390494I$ $a = 0.332946 - 0.042006I$ $b = 1.177310 - 0.586123I$	$-8.66211 + 1.81322I$	$-12.67811 - 2.30723I$
$u = -0.466983 + 0.965367I$ $a = -0.199192 - 0.619672I$ $b = 0.834189 + 0.461021I$	$-2.00166 + 2.21071I$	$-4.71974 - 0.56575I$
$u = -0.466983 - 0.965367I$ $a = -0.199192 + 0.619672I$ $b = 0.834189 - 0.461021I$	$-2.00166 - 2.21071I$	$-4.71974 + 0.56575I$
$u = -0.514231 + 0.162757I$ $a = -0.45194 + 2.42387I$ $b = -0.851422 - 0.181708I$	$-11.46830 - 6.99777I$	$-7.06193 + 5.14068I$
$u = -0.514231 - 0.162757I$ $a = -0.45194 - 2.42387I$ $b = -0.851422 + 0.181708I$	$-11.46830 + 6.99777I$	$-7.06193 - 5.14068I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.448216 + 0.292274I$ $a = 1.86115 + 1.85868I$ $b = -0.755540 + 0.212836I$	$-4.03868 - 3.30271I$	$-5.15759 + 8.58149I$
$u = 0.448216 - 0.292274I$ $a = 1.86115 - 1.85868I$ $b = -0.755540 - 0.212836I$	$-4.03868 + 3.30271I$	$-5.15759 - 8.58149I$
$u = -0.48663 + 1.59176I$ $a = 0.174458 + 1.123490I$ $b = 0.16570 - 1.57601I$	$5.02030 + 2.85883I$	$1.98205 + 2.55647I$
$u = -0.48663 - 1.59176I$ $a = 0.174458 - 1.123490I$ $b = 0.16570 + 1.57601I$	$5.02030 - 2.85883I$	$1.98205 - 2.55647I$
$u = 0.74113 + 1.80908I$ $a = 0.103771 - 1.009800I$ $b = 0.02879 + 1.43665I$	$1.63996 - 4.08509I$	$2.94294 + 6.31121I$
$u = 0.74113 - 1.80908I$ $a = 0.103771 + 1.009800I$ $b = 0.02879 - 1.43665I$	$1.63996 + 4.08509I$	$2.94294 - 6.31121I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{16} - 7u^{15} + \cdots - 3u + 1)(u^{60} - 8u^{59} + \cdots - 27u + 1)$
c_2	$(u^{16} - u^{15} + \cdots - 4u^2 + 1)(u^{60} + 31u^{58} + \cdots + 6806u + 3049)$
c_3	$(u^{16} + 5u^{15} + \cdots + 7u + 1)(u^{60} - 4u^{58} + \cdots + 905u + 79)$
c_4	$(u^{16} + 2u^{14} + \cdots + 4u + 1)(u^{60} + 3u^{59} + \cdots + 6612u + 977)$
c_5	$(u^{16} - u^{15} + \cdots + 8u + 8)(u^{60} + 19u^{58} + \cdots + 1808u + 136)$
c_6	$(u^{16} + 2u^{15} + \cdots + 2u + 4)(u^{60} + 3u^{59} + \cdots + 5062u + 484)$
c_7, c_8	$(u^{16} - u^{15} + \cdots + 2u + 1)(u^{60} - 2u^{59} + \cdots + 12u + 1)$
c_9	$(u^{16} + 3u^{15} + \cdots - 12u^2 + 8)(u^{60} - 4u^{59} + \cdots + 232u + 8)$
c_{10}	$(u^{16} + 4u^{15} + \cdots + 7u + 1)(u^{60} + 3u^{59} + \cdots + 1069u + 541)$
c_{11}	$(u^{16} + u^{15} + \cdots - 8u + 8)(u^{60} + 19u^{58} + \cdots + 1808u + 136)$
c_{12}	$(u^{16} + u^{15} + \cdots - 2u + 1)(u^{60} - 2u^{59} + \cdots + 12u + 1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{16}+y^{15}+\cdots+5y+1)(y^{60}+2y^{59}+\cdots-233y+1)$
c_2	$(y^{16}+9y^{15}+\cdots-8y+1)$ $\cdot(y^{60}+62y^{59}+\cdots+271621986y+9296401)$
c_3	$(y^{16}-13y^{15}+\cdots-43y+1)(y^{60}-8y^{59}+\cdots-193345y+6241)$
c_4	$(y^{16}+4y^{15}+\cdots+4y+1)(y^{60}+21y^{59}+\cdots+1.83698\times10^{7}y+954529)$
c_5, c_{11}	$(y^{16}+13y^{15}+\cdots+512y+64)$ $\cdot(y^{60}+38y^{59}+\cdots-152832y+18496)$
c_6	$(y^{16}+6y^{15}+\cdots-92y+16)$ $\cdot(y^{60}+63y^{59}+\cdots+4369636y+234256)$
c_7, c_8, c_{12}	$(y^{16}+19y^{15}+\cdots+20y+1)(y^{60}+64y^{59}+\cdots-6y+1)$
c_9	$(y^{16}-3y^{15}+\cdots-192y+64)(y^{60}+14y^{59}+\cdots+2240y+64)$
c_{10}	$(y^{16}-8y^{15}+\cdots-5y+1)(y^{60}-75y^{59}+\cdots-4777199y+292681)$