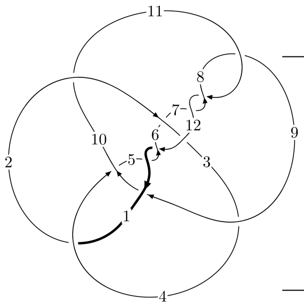
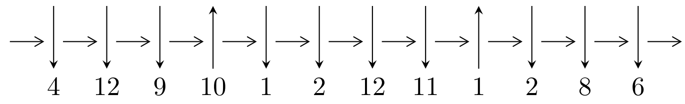
$12n_{0744}$ ($K12n_{0744}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & -170628010722u^{28} - 1866088423702u^{27} + \cdots + 214215715127b + 903136739857, \\
& -903136739857u^{28} - 9593248116983u^{27} + \cdots + 428431430254a + 3314728870309, \\
& u^{29} + 11u^{28} + \cdots - 9u - 2\rangle \\
I_2^u = \langle & -u^{10} + 5u^9 - 13u^8 + 20u^7 - 20u^6 + 11u^5 - u^4 - 4u^3 - au + u^2 + b + u - 1,\ -u^{10}a - u^{10} + \cdots - a + 3, \\
& u^{11} - 5u^{10} + 12u^9 - 15u^8 + 8u^7 + 4u^6 - 8u^5 + 3u^4 + 3u^3 - 3u^2 + 1\rangle \\
I_3^u = \langle & u^{15} - 6u^{14} + \cdots + b + 1,\ -u^{16} + 8u^{15} + \cdots + a + 1,\ u^{17} - 8u^{16} + \cdots - 5u^2 + 1\rangle
\end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 68 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. $\boldsymbol{I_1^u = \langle -1.71 \times 10^{11}u^{28} - 1.87 \times 10^{12}u^{27} + \cdots + 2.14 \times 10^{11}b + 9.03 \times 10^{11},\ -9.03 \times 10^{11}u^{28} - 9.59 \times 10^{12}u^{27} + \cdots + 4.28 \times 10^{11}a + 3.31 \times 10^{12},\ u^{29} + 11u^{28} + \cdots - 9u - 2\rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 2.10801u^{28} + 22.3916u^{27} + \cdots - 23.6508u - 7.73689 \\ 0.796524u^{28} + 8.71126u^{27} + \cdots - 11.2352u - 4.21602 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.303942u^{28} + 3.37670u^{27} + \cdots - 1.68222u + 0.481415 \\ -0.0333470u^{28} - 0.309258u^{27} + \cdots - 2.21689u - 0.607883 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.337289u^{28} + 3.68596u^{27} + \cdots + 0.534668u + 1.08930 \\ -0.0333470u^{28} - 0.309258u^{27} + \cdots - 2.21689u - 0.607883 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.270964u^{28} - 2.09093u^{27} + \cdots + 3.20823u + 1.64876 \\ -1.00627u^{28} - 10.9830u^{27} + \cdots + 4.79161u + 1.21989 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1.36199u^{28} + 14.4817u^{27} + \cdots - 15.3684u - 5.11393 \\ 1.06901u^{28} + 10.7545u^{27} + \cdots - 10.0600u - 3.62329 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1.31148u^{28} + 13.6803u^{27} + \cdots - 12.4157u - 3.52088 \\ 0.796524u^{28} + 8.71126u^{27} + \cdots - 11.2352u - 4.21602 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.313077u^{28} + 2.77803u^{27} + \cdots + 5.65956u + 1.76387 \\ 0.0242119u^{28} + 0.907930u^{27} + \cdots - 3.12489u - 0.674577 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.365788u^{28} + 3.53413u^{27} + \cdots + 2.53468u + 1.66264 \\ 0.286543u^{28} + 3.52311u^{27} + \cdots - 7.55846u - 2.08245 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.473567u^{28} - 5.70993u^{27} + \cdots + 3.97518u + 2.84095 \\ 0.727878u^{28} + 7.72192u^{27} + \cdots - 2.77982u - 0.441928 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes

$$= \frac{591062458684}{214215715127}u^{28} + \frac{6286984528582}{214215715127}u^{27} + \cdots - \frac{7402417712510}{214215715127}u - \frac{3687661591178}{214215715127}$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{29} - 11u^{28} + \cdots - 9u + 2$
c_2, c_6	$u^{29} - u^{28} + \cdots - 2u + 1$
c_3, c_{10}	$u^{29} + u^{28} + \cdots - 21u + 61$
c_4, c_9	$u^{29} + 17u^{27} + \cdots + u + 1$
c_5, c_{12}	$u^{29} + 23u^{28} + \cdots + 30720u + 2048$
c_7, c_8, c_{11}	$u^{29} - 8u^{28} + \cdots - 5u + 4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{29} + 7y^{28} + \cdots + 9y - 4$
c_2, c_6	$y^{29} - 31y^{28} + \cdots - 8y - 1$
c_3, c_{10}	$y^{29} - 33y^{28} + \cdots - 3829y - 3721$
c_4, c_9	$y^{29} + 34y^{28} + \cdots + 21y - 1$
c_5, c_{12}	$y^{29} + 11y^{28} + \cdots + 10485760y - 4194304$
c_7, c_8, c_{11}	$y^{29} + 24y^{28} + \cdots + 249y - 16$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.098165 + 1.116340I$ $a = 0.500410 + 0.496116I$ $b = 0.602958 - 0.509928I$	$8.55456 - 1.35151I$	$-1.44678 + 5.66145I$
$u = -0.098165 - 1.116340I$ $a = 0.500410 - 0.496116I$ $b = 0.602958 + 0.509928I$	$8.55456 + 1.35151I$	$-1.44678 - 5.66145I$
$u = 0.548183 + 0.560700I$ $a = 0.520202 - 0.557055I$ $b = -0.597507 + 0.013691I$	$1.15086 - 2.34551I$	$-4.15925 + 5.49477I$
$u = 0.548183 - 0.560700I$ $a = 0.520202 + 0.557055I$ $b = -0.597507 - 0.013691I$	$1.15086 + 2.34551I$	$-4.15925 - 5.49477I$
$u = 0.260946 + 1.189770I$ $a = 0.036619 - 0.297728I$ $b = -0.363784 + 0.034123I$	$2.53104 - 2.04396I$	$1.60323 + 2.96059I$
$u = 0.260946 - 1.189770I$ $a = 0.036619 + 0.297728I$ $b = -0.363784 - 0.034123I$	$2.53104 + 2.04396I$	$1.60323 - 2.96059I$
$u = -0.615626 + 0.456161I$ $a = -0.08330 + 1.86759I$ $b = 0.80064 + 1.18774I$	$6.05487 + 4.19684I$	$-2.11903 + 4.96577I$
$u = -0.615626 - 0.456161I$ $a = -0.08330 - 1.86759I$ $b = 0.80064 - 1.18774I$	$6.05487 - 4.19684I$	$-2.11903 - 4.96577I$
$u = 0.694406 + 0.054995I$ $a = -0.636984 - 0.496719I$ $b = 0.415008 + 0.379955I$	$-0.269382 + 0.537269I$	$-7.35658 - 1.73614I$
$u = 0.694406 - 0.054995I$ $a = -0.636984 + 0.496719I$ $b = 0.415008 - 0.379955I$	$-0.269382 - 0.537269I$	$-7.35658 + 1.73614I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.103300 + 0.861575I$ $a = 0.376035 - 1.243150I$ $b = -0.65619 - 1.69554I$	$-7.90254 + 3.02678I$	$-9.76473 - 1.78042I$
$u = -1.103300 - 0.861575I$ $a = 0.376035 + 1.243150I$ $b = -0.65619 + 1.69554I$	$-7.90254 - 3.02678I$	$-9.76473 + 1.78042I$
$u = 0.32044 + 1.44374I$ $a = -0.257368 + 0.140851I$ $b = 0.285822 + 0.326437I$	$4.37255 - 4.79804I$	$-8.00000 + 0.I$
$u = 0.32044 - 1.44374I$ $a = -0.257368 - 0.140851I$ $b = 0.285822 - 0.326437I$	$4.37255 + 4.79804I$	$-8.00000 + 0.I$
$u = 0.510259$ $a = -0.688382$ $b = 0.351253$	-0.807989	-12.5760
$u = -0.91528 + 1.17700I$ $a = -0.862893 + 0.570733I$ $b = -0.11804 + 1.53800I$	$-6.84831 + 4.41259I$	$-8.00000 + 0.I$
$u = -0.91528 - 1.17700I$ $a = -0.862893 - 0.570733I$ $b = -0.11804 - 1.53800I$	$-6.84831 - 4.41259I$	$-8.00000 + 0.I$
$u = -1.10567 + 1.01770I$ $a = -0.451102 + 1.142920I$ $b = 0.66438 + 1.72279I$	$-12.0141 + 9.0716I$	$-8.00000 + 0.I$
$u = -1.10567 - 1.01770I$ $a = -0.451102 - 1.142920I$ $b = 0.66438 - 1.72279I$	$-12.0141 - 9.0716I$	$-8.00000 + 0.I$
$u = -0.472362 + 0.098700I$ $a = -0.18874 - 2.17189I$ $b = -0.303518 - 1.007290I$	$-0.75815 + 1.61312I$	$-5.38396 - 3.22860I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.472362 - 0.098700I$ $a = -0.18874 + 2.17189I$ $b = -0.303518 + 1.007290I$	$-0.75815 - 1.61312I$	$-5.38396 + 3.22860I$
$u = -1.04583 + 1.12396I$ $a = 0.524247 - 1.088190I$ $b = -0.67480 - 1.72730I$	$-7.6508 + 14.9381I$	0
$u = -1.04583 - 1.12396I$ $a = 0.524247 + 1.088190I$ $b = -0.67480 + 1.72730I$	$-7.6508 - 14.9381I$	0
$u = -1.17801 + 0.98698I$ $a = -0.711549 + 0.760443I$ $b = -0.08767 + 1.59810I$	$-8.15639 - 6.90751I$	0
$u = -1.17801 - 0.98698I$ $a = -0.711549 - 0.760443I$ $b = -0.08767 - 1.59810I$	$-8.15639 + 6.90751I$	0
$u = -1.06954 + 1.11198I$ $a = 0.772171 - 0.666300I$ $b = 0.08496 - 1.57128I$	$-11.73330 - 1.13215I$	0
$u = -1.06954 - 1.11198I$ $a = 0.772171 + 0.666300I$ $b = 0.08496 + 1.57128I$	$-11.73330 + 1.13215I$	0
$u = 0.024689 + 0.424590I$ $a = 2.55644 - 0.38810I$ $b = -0.227898 - 1.075860I$	$0.174514 - 0.084806I$	$-5.47486 - 0.21908I$
$u = 0.024689 - 0.424590I$ $a = 2.55644 + 0.38810I$ $b = -0.227898 + 1.075860I$	$0.174514 + 0.084806I$	$-5.47486 + 0.21908I$

II.

$$\boldsymbol{I_2^u = \langle -u^{10}+5u^9+\cdots+b-1,\ -u^{10}a-u^{10}+\cdots-a+3,\ u^{11}-5u^{10}+\cdots-3u^2+1\rangle}$$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} a \\ u^{10} - 5u^9 + 13u^8 - 20u^7 + 20u^6 - 11u^5 + u^4 + 4u^3 + au - u^2 - u + 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^{10}a + u^{10} + \cdots - a - 1 \\ -1 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^{10}a + u^{10} + \cdots - a - 3u \\ -1 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -2u^{10}a + u^{10} + \cdots - a + 1 \\ -u^8a + 3u^7a - 4u^6a + u^5a + 2u^4a - 2u^3a - u^3 + au + u^2 - 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^{10} + 5u^9 + \cdots + a - 1 \\ u^8 - 5u^7 + 11u^6 + u^4a - 12u^5 - u^3a + 5u^4 + 2u^3 + au - 2u^2 + 1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^{10} + 5u^9 + \cdots + a - 1 \\ u^{10} - 5u^9 + 13u^8 - 20u^7 + 20u^6 - 11u^5 + u^4 + 4u^3 + au - u^2 - u + 1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^{10} - 5u^9 + \cdots - a - 1 \\ -u^{10}a + 5u^9a + \cdots - u + 1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u^{10} - 5u^9 + \cdots + a + 1 \\ -u^8a + 3u^7a - 4u^6a + u^5a + 2u^4a - 2u^3a + u^4 - 3u^3 + au + 3u^2 - 1 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -u^{10}a + u^{10} + \cdots - a + 1 \\ -1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u^9 - 20u^8 + 52u^7 - 72u^6 + 48u^5 + 12u^4 - 40u^3 + 20u^2 + 12u - 26$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u^{11}+5u^{10}+12u^9+15u^8+8u^7-4u^6-8u^5-3u^4+3u^3+3u^2-1)^2$
c_2, c_6	$u^{22}+u^{21}+\cdots+124u-113$
c_3, c_{10}	$u^{22}-u^{21}+\cdots-1074u-361$
c_4, c_9	$u^{22}-3u^{21}+\cdots-94u+31$
c_5, c_{12}	$(u-1)^{22}$
c_7, c_8, c_{11}	$(u^{11}+3u^{10}+\cdots+2u+1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$(y^{11} - y^{10} + \cdots + 6y - 1)^2$
c_2, c_6	$y^{22} - 9y^{21} + \cdots - 218776y + 12769$
c_3, c_{10}	$y^{22} - 29y^{21} + \cdots - 1134704y + 130321$
c_4, c_9	$y^{22} + 15y^{21} + \cdots - 36736y + 961$
c_5, c_{12}	$(y - 1)^{22}$
c_7, c_8, c_{11}	$(y^{11} + 7y^{10} + \cdots - 6y - 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.326966 + 0.916688I$ $a = -0.529318 - 1.119230I$ $b = -0.242110 - 1.316380I$	$1.34086 - 5.00074I$	$-4.15941 + 6.22751I$
$u = 0.326966 + 0.916688I$ $a = 1.357520 + 0.220088I$ $b = -0.852918 + 0.851171I$	$1.34086 - 5.00074I$	$-4.15941 + 6.22751I$
$u = 0.326966 - 0.916688I$ $a = -0.529318 + 1.119230I$ $b = -0.242110 + 1.316380I$	$1.34086 + 5.00074I$	$-4.15941 - 6.22751I$
$u = 0.326966 - 0.916688I$ $a = 1.357520 - 0.220088I$ $b = -0.852918 - 0.851171I$	$1.34086 + 5.00074I$	$-4.15941 - 6.22751I$
$u = 0.864248 + 0.407709I$ $a = 0.217689 + 1.032910I$ $b = 0.03362 + 1.89151I$	$-3.71387 - 2.24779I$	$-15.6358 + 5.0636I$
$u = 0.864248 + 0.407709I$ $a = -0.87635 - 1.77520I$ $b = 0.232990 - 0.981446I$	$-3.71387 - 2.24779I$	$-15.6358 + 5.0636I$
$u = 0.864248 - 0.407709I$ $a = 0.217689 - 1.032910I$ $b = 0.03362 - 1.89151I$	$-3.71387 + 2.24779I$	$-15.6358 - 5.0636I$
$u = 0.864248 - 0.407709I$ $a = -0.87635 + 1.77520I$ $b = 0.232990 + 0.981446I$	$-3.71387 + 2.24779I$	$-15.6358 - 5.0636I$
$u = -0.577598 + 0.283449I$ $a = -0.202380 - 0.311959I$ $b = -2.12332 - 0.11036I$	$-1.52964 + 5.92443I$	$-15.1705 - 10.0235I$
$u = -0.577598 + 0.283449I$ $a = -2.88708 - 1.60787I$ $b = -0.205319 - 0.122822I$	$-1.52964 + 5.92443I$	$-15.1705 - 10.0235I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.577598 - 0.283449I$ $a = -0.202380 + 0.311959I$ $b = -2.12332 + 0.11036I$	$-1.52964 - 5.92443I$	$-15.1705 + 10.0235I$
$u = -0.577598 - 0.283449I$ $a = -2.88708 + 1.60787I$ $b = -0.205319 + 0.122822I$	$-1.52964 - 5.92443I$	$-15.1705 + 10.0235I$
$u = 1.110200 + 0.862988I$ $a = 0.385481 + 0.834174I$ $b = -0.28166 + 1.74173I$	$-4.09276 - 2.70441I$	$-15.4676 - 0.0833I$
$u = 1.110200 + 0.862988I$ $a = -0.602034 - 1.100870I$ $b = 0.291922 - 1.258760I$	$-4.09276 - 2.70441I$	$-15.4676 - 0.0833I$
$u = 1.110200 - 0.862988I$ $a = 0.385481 - 0.834174I$ $b = -0.28166 - 1.74173I$	$-4.09276 + 2.70441I$	$-15.4676 + 0.0833I$
$u = 1.110200 - 0.862988I$ $a = -0.602034 + 1.100870I$ $b = 0.291922 + 1.258760I$	$-4.09276 + 2.70441I$	$-15.4676 + 0.0833I$
$u = -0.566454$ $a = 0.335833$ $b = 2.27902$	-5.66863	-24.2610
$u = -0.566454$ $a = 4.02330$ $b = 0.190234$	-5.66863	-24.2610
$u = 1.05941 + 1.17096I$ $a = 0.500509 + 0.981987I$ $b = -0.207452 + 1.345270I$	$-3.15221 - 5.21629I$	$-12.4360 + 9.0128I$
$u = 1.05941 + 1.17096I$ $a = -0.543605 - 0.668985I$ $b = 0.61962 - 1.62640I$	$-3.15221 - 5.21629I$	$-12.4360 + 9.0128I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.05941 - 1.17096I$ $a = 0.500509 - 0.981987I$ $b = -0.207452 - 1.345270I$	$-3.15221 + 5.21629I$	$-12.4360 - 9.0128I$
$u = 1.05941 - 1.17096I$ $a = -0.543605 + 0.668985I$ $b = 0.61962 + 1.62640I$	$-3.15221 + 5.21629I$	$-12.4360 - 9.0128I$

III.

$I_3^u = \langle u^{15}-6u^{14}+\cdots+b+1,\ -u^{16}+8u^{15}+\cdots+a+1,\ u^{17}-8u^{16}+\cdots-5u^2+1\rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^{16} - 8u^{15} + \cdots - 4u - 1 \\ -u^{15} + 6u^{14} + \cdots - u - 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -2u^{16} + 15u^{15} + \cdots + 3u - 1 \\ -u^{16} + 8u^{15} + \cdots - 7u^2 + 2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^{16} + 7u^{15} + \cdots + 3u - 3 \\ -u^{16} + 8u^{15} + \cdots - 7u^2 + 2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -u^{16} + 7u^{15} + \cdots + 4u - 4 \\ -u^{16} + 8u^{15} + \cdots - 8u^2 + 2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^{15} + 7u^{14} + \cdots + 13u^2 - 4u \\ -u^{14} + 6u^{13} + \cdots + 10u^3 - 3u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u^{16} - 7u^{15} + \cdots + 14u^2 - 3u \\ -u^{15} + 6u^{14} + \cdots - u - 1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^{14} + 7u^{13} + \cdots + 7u - 4 \\ -u^{16} + 7u^{15} + \cdots - 2u + 1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 2u^{16} - 13u^{15} + \cdots - u - 2 \\ 2u^{16} - 16u^{15} + \cdots - u - 2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -u^{16} + 8u^{15} + \cdots - 2u + 6 \\ u^{16} - 7u^{15} + \cdots + 2u - 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 10u^{16} - 77u^{15} + 334u^{14} - 998u^{13} + 2257u^{12} - 3997u^{11} + 5638u^{10} - 6311u^9 + 5497u^8 - 3528u^7 + 1459u^6 - 209u^5 - 102u^4 - 11u^3 + 73u^2 - 14u - 22$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{17} - 8u^{16} + \cdots - 5u^2 + 1$
c_2, c_6	$u^{17} + u^{16} + \cdots + 3u + 1$
c_3, c_{10}	$u^{17} + u^{16} + \cdots + 4u - 1$
c_4, c_9	$u^{17} + 4u^{15} + \cdots - 2u - 1$
c_5	$u^{17} + 6u^{15} + \cdots + 7u^2 + 1$
c_7, c_8	$u^{17} - 5u^{16} + \cdots + 28u - 5$
c_{11}	$u^{17} + 5u^{16} + \cdots + 28u + 5$
c_{12}	$u^{17} + 6u^{15} + \cdots - 7u^2 - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{17} + 8y^{16} + \cdots + 10y - 1$
c_2, c_6	$y^{17} - 5y^{16} + \cdots + 9y - 1$
c_3, c_{10}	$y^{17} - 15y^{16} + \cdots + 8y - 1$
c_4, c_9	$y^{17} + 8y^{16} + \cdots - 10y - 1$
c_5, c_{12}	$y^{17} + 12y^{16} + \cdots - 14y - 1$
c_7, c_8, c_{11}	$y^{17} + 17y^{16} + \cdots - 106y - 25$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.893251 + 0.264630I$ $a = 0.018964 - 1.091470I$ $b = 0.305775 - 0.969935I$	$-1.90214 - 2.23369I$	$-11.12752 + 4.61502I$
$u = 0.893251 - 0.264630I$ $a = 0.018964 + 1.091470I$ $b = 0.305775 + 0.969935I$	$-1.90214 + 2.23369I$	$-11.12752 - 4.61502I$
$u = 0.684501 + 0.597554I$ $a = 0.15020 + 1.59282I$ $b = -0.84898 + 1.18004I$	$5.93338 - 4.62482I$	$-7.02513 + 11.80589I$
$u = 0.684501 - 0.597554I$ $a = 0.15020 - 1.59282I$ $b = -0.84898 - 1.18004I$	$5.93338 + 4.62482I$	$-7.02513 - 11.80589I$
$u = 0.345763 + 1.168970I$ $a = -0.699467 + 0.234907I$ $b = -0.516447 - 0.736431I$	$7.99739 + 0.51870I$	$-7.58791 + 1.24109I$
$u = 0.345763 - 1.168970I$ $a = -0.699467 - 0.234907I$ $b = -0.516447 + 0.736431I$	$7.99739 - 0.51870I$	$-7.58791 - 1.24109I$
$u = 0.291791 + 1.326680I$ $a = 0.365592 + 0.062889I$ $b = 0.023243 + 0.503375I$	$1.96562 - 2.04249I$	$-13.40328 + 2.16297I$
$u = 0.291791 - 1.326680I$ $a = 0.365592 - 0.062889I$ $b = 0.023243 - 0.503375I$	$1.96562 + 2.04249I$	$-13.40328 - 2.16297I$
$u = 1.085990 + 0.881688I$ $a = -0.437409 - 0.954977I$ $b = 0.36697 - 1.42275I$	$-3.08880 - 3.07648I$	$-5.91787 + 2.85067I$
$u = 1.085990 - 0.881688I$ $a = -0.437409 + 0.954977I$ $b = 0.36697 + 1.42275I$	$-3.08880 + 3.07648I$	$-5.91787 - 2.85067I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.16949 + 1.42715I$ $a = -0.256405 - 0.318176I$ $b = 0.410628 - 0.419856I$	$4.55049 - 5.52863I$	$-2.59452 + 8.92048I$
$u = 0.16949 - 1.42715I$ $a = -0.256405 + 0.318176I$ $b = 0.410628 + 0.419856I$	$4.55049 + 5.52863I$	$-2.59452 - 8.92048I$
$u = 0.98406 + 1.15345I$ $a = 0.582475 + 0.763289I$ $b = -0.30723 + 1.42298I$	$-2.24300 - 4.51220I$	$-5.31497 + 2.60777I$
$u = 0.98406 - 1.15345I$ $a = 0.582475 - 0.763289I$ $b = -0.30723 - 1.42298I$	$-2.24300 + 4.51220I$	$-5.31497 - 2.60777I$
$u = -0.300698 + 0.295414I$ $a = -2.03045 - 1.73448I$ $b = 1.122940 - 0.078268I$	$-0.82315 + 5.54249I$	$-4.57099 - 3.83728I$
$u = -0.300698 - 0.295414I$ $a = -2.03045 + 1.73448I$ $b = 1.122940 + 0.078268I$	$-0.82315 - 5.54249I$	$-4.57099 + 3.83728I$
$u = -0.308277$ $a = 3.61299$ $b = -1.11380$	-5.04041	-7.91560

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{11}+5u^{10}+12u^9+15u^8+8u^7-4u^6-8u^5-3u^4+3u^3+3u^2-1)^2$ $\cdot(u^{17}-8u^{16}+\cdots-5u^2+1)(u^{29}-11u^{28}+\cdots-9u+2)$
c_2, c_6	$(u^{17}+u^{16}+\cdots+3u+1)(u^{22}+u^{21}+\cdots+124u-113)$ $\cdot(u^{29}-u^{28}+\cdots-2u+1)$
c_3, c_{10}	$(u^{17}+u^{16}+\cdots+4u-1)(u^{22}-u^{21}+\cdots-1074u-361)$ $\cdot(u^{29}+u^{28}+\cdots-21u+61)$
c_4, c_9	$(u^{17}+4u^{15}+\cdots-2u-1)(u^{22}-3u^{21}+\cdots-94u+31)$ $\cdot(u^{29}+17u^{27}+\cdots+u+1)$
c_5	$((u-1)^{22})(u^{17}+6u^{15}+\cdots+7u^2+1)$ $\cdot(u^{29}+23u^{28}+\cdots+30720u+2048)$
c_7, c_8	$((u^{11}+3u^{10}+\cdots+2u+1)^2)(u^{17}-5u^{16}+\cdots+28u-5)$ $\cdot(u^{29}-8u^{28}+\cdots-5u+4)$
c_{11}	$((u^{11}+3u^{10}+\cdots+2u+1)^2)(u^{17}+5u^{16}+\cdots+28u+5)$ $\cdot(u^{29}-8u^{28}+\cdots-5u+4)$
c_{12}	$((u-1)^{22})(u^{17}+6u^{15}+\cdots-7u^2-1)$ $\cdot(u^{29}+23u^{28}+\cdots+30720u+2048)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^{11} - y^{10} + \cdots + 6y - 1)^2)(y^{17} + 8y^{16} + \cdots + 10y - 1)$ $\cdot (y^{29} + 7y^{28} + \cdots + 9y - 4)$
c_2, c_6	$(y^{17} - 5y^{16} + \cdots + 9y - 1)(y^{22} - 9y^{21} + \cdots - 218776y + 12769)$ $\cdot (y^{29} - 31y^{28} + \cdots - 8y - 1)$
c_3, c_{10}	$(y^{17} - 15y^{16} + \cdots + 8y - 1)(y^{22} - 29y^{21} + \cdots - 1134704y + 130321)$ $\cdot (y^{29} - 33y^{28} + \cdots - 3829y - 3721)$
c_4, c_9	$(y^{17} + 8y^{16} + \cdots - 10y - 1)(y^{22} + 15y^{21} + \cdots - 36736y + 961)$ $\cdot (y^{29} + 34y^{28} + \cdots + 21y - 1)$
c_5, c_{12}	$((y - 1)^{22})(y^{17} + 12y^{16} + \cdots - 14y - 1)$ $\cdot (y^{29} + 11y^{28} + \cdots + 10485760y - 4194304)$
c_7, c_8, c_{11}	$((y^{11} + 7y^{10} + \cdots - 6y - 1)^2)(y^{17} + 17y^{16} + \cdots - 106y - 25)$ $\cdot (y^{29} + 24y^{28} + \cdots + 249y - 16)$