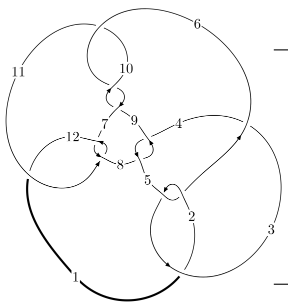
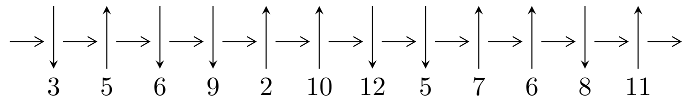
$12n_{0049}$ $(K12n_{0049})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -484296105u^{35} - 876453979u^{34} + \cdots + 5825897536b + 2936630968,$$
$$2622553061u^{35} + 6852014457u^{34} + \cdots + 11651795072a + 6583505056,\ u^{36} + 2u^{35} + \cdots - 3u + 4\rangle$$
$$I_2^u = \langle -6a^3u + 44a^3 - 29a^2u + 50a^2 - 44au + 61b - 23a + 26u - 28,$$
$$2a^4 - 2a^3u + 5a^3 - 2a^2u + 4au - 6a + 5u - 3,\ u^2 - u + 1\rangle$$
$$I_3^u = \langle 26u^3a^2 + 8a^2u^2 - 12u^3a + 15a^2u - 31u^2a - 12u^3 + 6a^2 + 4au + 40u^2 + 71b - 41a + 4u + 30,$$
$$2u^3a^2 + 4a^2u^2 - 2u^3a + a^3 + 4a^2u - 5u^2a - u^3 - 7au - u^2 - 5a + u + 2,\ u^4 + u^3 + u^2 + 1\rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 56 representations.

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[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.
$\boldsymbol{I_1^u = \langle -4.84\times 10^{8}u^{35} - 8.76\times 10^{8}u^{34} + \cdots + 5.83\times 10^{9}b + 2.94\times 10^{9},\ 2.62\times 10^{9}u^{35} + 6.85\times 10^{9}u^{34} + \cdots + 1.17\times 10^{10}a + 6.58\times 10^{9},\ u^{36} + 2u^{35} + \cdots - 3u + 4\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -0.225077u^{35} - 0.588065u^{34} + \cdots - 2.43489u - 0.565021 \\ 0.0831282u^{35} + 0.150441u^{34} + \cdots - 0.808963u - 0.504065 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -0.308205u^{35} - 0.738506u^{34} + \cdots - 1.62593u - 0.0609557 \\ 0.0831282u^{35} + 0.150441u^{34} + \cdots - 0.808963u - 0.504065 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0.00526049u^{35} + 0.0984092u^{34} + \cdots - 1.00467u + 1.90403 \\ -0.130367u^{35} - 0.265551u^{34} + \cdots + 0.257479u - 0.749489 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -0.315652u^{35} - 0.320533u^{34} + \cdots - 3.86030u + 1.93751 \\ -0.213900u^{35} - 0.524671u^{34} + \cdots + 1.76935u - 2.11821 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^3 \\ u^3 + u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -0.448719u^{35} - 0.603542u^{34} + \cdots - 4.28587u + 1.06239 \\ -0.174790u^{35} - 0.478417u^{34} + \cdots + 2.25099u - 2.05071 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0.0695792u^{35} + 0.105837u^{34} + \cdots - 0.289164u + 0.533612 \\ 0.106950u^{35} + 0.199836u^{34} + \cdots + 0.0528230u + 0.809104 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{1359975379}{2912948768}u^{35} + \frac{808893889}{1456474384}u^{34} + \cdots + \frac{371799183}{2912948768}u - \frac{4242546469}{728237192}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{36} + 10u^{35} + \cdots + 255u + 16$
c_2, c_5	$u^{36} + 2u^{35} + \cdots - 3u + 4$
c_3	$u^{36} - 2u^{35} + \cdots + 110445u + 62564$
c_4, c_8	$u^{36} - 2u^{35} + \cdots - 3584u + 2048$
c_6, c_9, c_{10}	$u^{36} + 3u^{35} + \cdots + 4u + 1$
c_7, c_{11}	$u^{36} + 3u^{35} + \cdots + 2u + 1$
c_{12}	$u^{36} - 23u^{35} + \cdots - 6u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{36} + 34y^{35} + \cdots + 19807y + 256$
c_2, c_5	$y^{36} + 10y^{35} + \cdots + 255y + 16$
c_3	$y^{36} + 58y^{35} + \cdots + 87628895247y + 3914254096$
c_4, c_8	$y^{36} + 30y^{35} + \cdots + 13893632y + 4194304$
c_6, c_9, c_{10}	$y^{36} + 27y^{35} + \cdots + 6y + 1$
c_7, c_{11}	$y^{36} + 23y^{35} + \cdots + 6y + 1$
c_{12}	$y^{36} - 17y^{35} + \cdots + 6y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.171600 + 1.110920I$ $a = -0.204619 + 1.345050I$ $b = -0.216810 - 1.196860I$	$-4.27639 + 3.16772I$	$-7.58797 - 3.35954I$
$u = 0.171600 - 1.110920I$ $a = -0.204619 - 1.345050I$ $b = -0.216810 + 1.196860I$	$-4.27639 - 3.16772I$	$-7.58797 + 3.35954I$
$u = 1.085660 + 0.293972I$ $a = 0.392792 - 0.045820I$ $b = 0.334592 + 0.680226I$	$4.30159 + 1.64830I$	$7.39222 - 3.81709I$
$u = 1.085660 - 0.293972I$ $a = 0.392792 + 0.045820I$ $b = 0.334592 - 0.680226I$	$4.30159 - 1.64830I$	$7.39222 + 3.81709I$
$u = -0.312081 + 0.807793I$ $a = 1.53056 + 0.47632I$ $b = -0.04471 - 1.51818I$	$-7.22153 + 1.57633I$	$-9.02842 - 6.04950I$
$u = -0.312081 - 0.807793I$ $a = 1.53056 - 0.47632I$ $b = -0.04471 + 1.51818I$	$-7.22153 - 1.57633I$	$-9.02842 + 6.04950I$
$u = 0.633550 + 0.959306I$ $a = 1.67177 + 0.11512I$ $b = 0.190966 + 0.946097I$	$-1.10855 + 3.29892I$	$-6.24385 - 2.89898I$
$u = 0.633550 - 0.959306I$ $a = 1.67177 - 0.11512I$ $b = 0.190966 - 0.946097I$	$-1.10855 - 3.29892I$	$-6.24385 + 2.89898I$
$u = 0.923008 + 0.689836I$ $a = -0.417168 - 0.169238I$ $b = -0.346298 + 0.404592I$	$3.90051 + 1.86347I$	$6.48131 - 1.21859I$
$u = 0.923008 - 0.689836I$ $a = -0.417168 + 0.169238I$ $b = -0.346298 - 0.404592I$	$3.90051 - 1.86347I$	$6.48131 + 1.21859I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.874677 + 0.761101I$ $a = -0.370685 - 0.647821I$ $b = -0.59935 - 1.30228I$	$3.00591 + 2.79905I$	$-0.254837 - 1.357172I$
$u = -0.874677 - 0.761101I$ $a = -0.370685 + 0.647821I$ $b = -0.59935 + 1.30228I$	$3.00591 - 2.79905I$	$-0.254837 + 1.357172I$
$u = -0.433561 + 0.706966I$ $a = -1.95347 - 0.21519I$ $b = -0.16134 + 1.55299I$	$-6.76494 - 4.64397I$	$-3.32082 - 3.17287I$
$u = -0.433561 - 0.706966I$ $a = -1.95347 + 0.21519I$ $b = -0.16134 - 1.55299I$	$-6.76494 + 4.64397I$	$-3.32082 + 3.17287I$
$u = 0.458151 + 0.676958I$ $a = 0.753522 - 0.718675I$ $b = 0.019557 - 0.666846I$	$-0.198612 + 1.374800I$	$-3.09098 - 4.69147I$
$u = 0.458151 - 0.676958I$ $a = 0.753522 + 0.718675I$ $b = 0.019557 + 0.666846I$	$-0.198612 - 1.374800I$	$-3.09098 + 4.69147I$
$u = 0.471893 + 1.096490I$ $a = 0.224206 + 0.323614I$ $b = 0.422956 - 0.007097I$	$1.60525 + 3.66384I$	$4.88856 - 3.83188I$
$u = 0.471893 - 1.096490I$ $a = 0.224206 - 0.323614I$ $b = 0.422956 + 0.007097I$	$1.60525 - 3.66384I$	$4.88856 + 3.83188I$
$u = -1.024050 + 0.695309I$ $a = 0.535986 + 0.556491I$ $b = 0.567012 + 1.295000I$	$7.75189 + 8.17134I$	$1.99685 - 4.00929I$
$u = -1.024050 - 0.695309I$ $a = 0.535986 - 0.556491I$ $b = 0.567012 - 1.295000I$	$7.75189 - 8.17134I$	$1.99685 + 4.00929I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.961809+0.820602I$ $a=1.181150+0.495596I$ $b=1.059240-0.084079I$	$11.48810+2.42769I$	$4.62667-0.56621I$
$u=-0.961809-0.820602I$ $a=1.181150-0.495596I$ $b=1.059240+0.084079I$	$11.48810-2.42769I$	$4.62667+0.56621I$
$u=-0.785168+1.017390I$ $a=-1.76172-0.30795I$ $b=-0.54057+1.40007I$	$2.20898-8.97826I$	$-1.63229+5.82526I$
$u=-0.785168-1.017390I$ $a=-1.76172+0.30795I$ $b=-0.54057-1.40007I$	$2.20898+8.97826I$	$-1.63229-5.82526I$
$u=-0.854722+1.028010I$ $a=1.038600+0.610663I$ $b=1.088070-0.034474I$	$10.81730-9.09210I$	$3.56135+5.43028I$
$u=-0.854722-1.028010I$ $a=1.038600-0.610663I$ $b=1.088070+0.034474I$	$10.81730+9.09210I$	$3.56135-5.43028I$
$u=-0.810811+1.108300I$ $a=1.71062+0.36230I$ $b=0.53618-1.37404I$	$6.4290-14.8448I$	$0.25659+8.03190I$
$u=-0.810811-1.108300I$ $a=1.71062-0.36230I$ $b=0.53618+1.37404I$	$6.4290+14.8448I$	$0.25659-8.03190I$
$u=0.310580+1.362320I$ $a=0.544180-0.799588I$ $b=0.307951+1.137470I$	$-1.47960+6.60474I$	$-1.77461-8.22994I$
$u=0.310580-1.362320I$ $a=0.544180+0.799588I$ $b=0.307951-1.137470I$	$-1.47960-6.60474I$	$-1.77461+8.22994I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.92557 + 1.09311I$ $a = -0.857998 + 0.114331I$ $b = -0.322915 - 0.915206I$	$2.65507 + 4.99154I$	$3.97038 - 7.84261I$
$u = 0.92557 - 1.09311I$ $a = -0.857998 - 0.114331I$ $b = -0.322915 + 0.915206I$	$2.65507 - 4.99154I$	$3.97038 + 7.84261I$
$u = -0.165244 + 0.479278I$ $a = -1.83465 - 0.61814I$ $b = -0.570372 + 0.472484I$	$0.02049 - 1.94674I$	$-0.99192 + 2.87831I$
$u = -0.165244 - 0.479278I$ $a = -1.83465 + 0.61814I$ $b = -0.570372 - 0.472484I$	$0.02049 + 1.94674I$	$-0.99192 - 2.87831I$
$u = 0.242112 + 0.308667I$ $a = 0.941920 - 0.135172I$ $b = -0.224155 - 0.681318I$	$-0.235696 + 1.266250I$	$-2.12322 - 5.45165I$
$u = 0.242112 - 0.308667I$ $a = 0.941920 + 0.135172I$ $b = -0.224155 + 0.681318I$	$-0.235696 - 1.266250I$	$-2.12322 + 5.45165I$

II.
$$\boldsymbol{I_2^u = \langle -6a^3u - 29a^2u + \cdots - 23a - 28,\ -2a^3u - 2a^2u + \cdots - 6a - 3,\ u^2 - u + 1\rangle}$$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ u-1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u \\ u-1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} a \\ 0.0983607a^3u + 0.475410a^2u + \cdots + 0.377049a + 0.459016 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -0.0983607a^3u - 0.475410a^2u + \cdots + 0.622951a - 0.459016 \\ 0.0983607a^3u + 0.475410a^2u + \cdots + 0.377049a + 0.459016 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1.18033a^3u - 0.295082a^2u + \cdots + 0.524590a - 0.491803 \\ -0.786885a^3u + 0.196721a^2u + \cdots + 0.983607a + 2.32787 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0.196721a^3u + 0.950820a^2u + \cdots + 0.754098a + 0.918033 \\ -1.44262a^3u - 1.63934a^2u + \cdots - 0.196721a + 0.934426 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ u-1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0.196721a^3u + 0.950820a^2u + \cdots + 0.754098a + 0.918033 \\ -1.44262a^3u - 1.63934a^2u + \cdots - 0.196721a + 0.934426 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0.393443a^3u - 0.0983607a^2u + \cdots + 1.50820a - 0.163934 \\ -0.786885a^3u + 0.196721a^2u + \cdots + 0.983607a + 2.32787 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{70}{61}a^3u - \frac{188}{61}a^3 - \frac{48}{61}a^2u - \frac{136}{61}a^2 - \frac{56}{61}au + \frac{248}{61}a - \frac{344}{61}u + \frac{347}{61}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_5	$(u^2 - u + 1)^4$
c_2	$(u^2 + u + 1)^4$
c_4, c_8	u^8
c_6	$(u^4 + u^3 + 3u^2 + 2u + 1)^2$
c_7	$(u^4 + u^3 + u^2 + 1)^2$
c_9, c_{10}, c_{12}	$(u^4 - u^3 + 3u^2 - 2u + 1)^2$
c_{11}	$(u^4 - u^3 + u^2 + 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_5	$(y^2 + y + 1)^4$
c_4, c_8	y^8
c_6, c_9, c_{10} c_{12}	$(y^4 + 5y^3 + 7y^2 + 2y + 1)^2$
c_7, c_{11}	$(y^4 + y^3 + 3y^2 + 2y + 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.500000 + 0.866025I$ $a = -0.334772 + 0.902624I$ $b = -0.395123 + 0.506844I$	$0.211005 + 0.614778I$	$2.28131 + 2.56093I$
$u = 0.500000 + 0.866025I$ $a = 1.118210 - 0.202000I$ $b = -0.10488 + 1.55249I$	$-6.79074 - 1.13408I$	$0.84181 - 3.00733I$
$u = 0.500000 + 0.866025I$ $a = -1.212650 - 0.218250I$ $b = -0.395123 - 0.506844I$	$0.21101 + 3.44499I$	$-0.06504 - 6.27596I$
$u = 0.500000 + 0.866025I$ $a = -1.57079 + 0.38365I$ $b = -0.10488 - 1.55249I$	$-6.79074 + 5.19385I$	$-4.18309 - 10.81465I$
$u = 0.500000 - 0.866025I$ $a = -0.334772 - 0.902624I$ $b = -0.395123 - 0.506844I$	$0.211005 - 0.614778I$	$2.28131 - 2.56093I$
$u = 0.500000 - 0.866025I$ $a = 1.118210 + 0.202000I$ $b = -0.10488 - 1.55249I$	$-6.79074 + 1.13408I$	$0.84181 + 3.00733I$
$u = 0.500000 - 0.866025I$ $a = -1.212650 + 0.218250I$ $b = -0.395123 + 0.506844I$	$0.21101 - 3.44499I$	$-0.06504 + 6.27596I$
$u = 0.500000 - 0.866025I$ $a = -1.57079 - 0.38365I$ $b = -0.10488 + 1.55249I$	$-6.79074 - 5.19385I$	$-4.18309 + 10.81465I$

III.

$$I_3^u = \langle 26u^3a^2-12u^3a+\cdots-41a+30,\ 2u^3a^2-2u^3a+\cdots-5a+2,\ u^4+u^3+u^2+1\rangle$$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u \\ u^3+u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^3 \\ u^3+u^2+1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} a \\ -0.366197a^2u^3+0.169014au^3+\cdots+0.577465a-0.422535 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0.366197a^2u^3-0.169014au^3+\cdots+0.422535a+0.422535 \\ -0.366197a^2u^3+0.169014au^3+\cdots+0.577465a-0.422535 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -0.267606a^2u^3+0.661972au^3+\cdots-1.15493a+0.845070 \\ 0.239437a^2u^3+0.197183au^3+\cdots+0.507042a+0.507042 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^2+1 \\ -u^3-u^2-1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^3 \\ u^3+u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -0.366197a^2u^3+0.169014au^3+\cdots-0.422535a-0.422535 \\ 0.366197a^2u^3-0.169014au^3+\cdots-0.577465a+0.422535 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^2-4u-2$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4, c_8	$(y^4+5y^3+7y^2+2y+1)^3$
c_2, c_5	$(y^4+y^3+3y^2+2y+1)^3$
c_3	$(y^4+9y^3+31y^2+19y+4)^3$
c_6, c_7, c_9 c_{10}, c_{11}	$y^{12}+8y^{11}+\cdots+10y+1$
c_{12}	$y^{12}-8y^{11}+\cdots+2y+1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.351808 + 0.720342I$ $a = 0.266204 - 0.424111I$ $b = -0.202218 - 0.425275I$	$-0.21101 + 1.41510I$	$-1.82674 - 4.90874I$
$u = 0.351808 + 0.720342I$ $a = 1.61961 - 0.46490I$ $b = 0.169110 - 0.735861I$	$-0.21101 + 1.41510I$	$-1.82674 - 4.90874I$
$u = 0.351808 + 0.720342I$ $a = -0.70433 - 3.80711I$ $b = 0.033108 + 1.161140I$	$-0.21101 + 1.41510I$	$-1.82674 - 4.90874I$
$u = 0.351808 - 0.720342I$ $a = 0.266204 + 0.424111I$ $b = -0.202218 + 0.425275I$	$-0.21101 - 1.41510I$	$-1.82674 + 4.90874I$
$u = 0.351808 - 0.720342I$ $a = 1.61961 + 0.46490I$ $b = 0.169110 + 0.735861I$	$-0.21101 - 1.41510I$	$-1.82674 + 4.90874I$
$u = 0.351808 - 0.720342I$ $a = -0.70433 + 3.80711I$ $b = 0.033108 - 1.161140I$	$-0.21101 - 1.41510I$	$-1.82674 + 4.90874I$
$u = -0.851808 + 0.911292I$ $a = -1.140580 - 0.606578I$ $b = -1.096690 + 0.070743I$	$6.79074 - 3.16396I$	$1.82674 + 2.56480I$
$u = -0.851808 + 0.911292I$ $a = 0.220330 + 0.512696I$ $b = 0.59056 + 1.34306I$	$6.79074 - 3.16396I$	$1.82674 + 2.56480I$
$u = -0.851808 + 0.911292I$ $a = 1.73877 + 0.20498I$ $b = 0.50613 - 1.41380I$	$6.79074 - 3.16396I$	$1.82674 + 2.56480I$
$u = -0.851808 - 0.911292I$ $a = -1.140580 + 0.606578I$ $b = -1.096690 - 0.070743I$	$6.79074 + 3.16396I$	$1.82674 - 2.56480I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.851808 - 0.911292I$ $a = 0.220330 - 0.512696I$ $b = 0.59056 - 1.34306I$	$6.79074 + 3.16396I$	$1.82674 - 2.56480I$
$u = -0.851808 - 0.911292I$ $a = 1.73877 - 0.20498I$ $b = 0.50613 + 1.41380I$	$6.79074 + 3.16396I$	$1.82674 - 2.56480I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^2-u+1)^4(u^4+u^3+3u^2+2u+1)^3$ $\cdot(u^{36}+10u^{35}+\cdots+255u+16)$
c_2	$((u^2+u+1)^4)(u^4+u^3+u^2+1)^3(u^{36}+2u^{35}+\cdots-3u+4)$
c_3	$(u^2-u+1)^4(u^4-u^3+5u^2+u+2)^3$ $\cdot(u^{36}-2u^{35}+\cdots+110445u+62564)$
c_4, c_8	$u^8(u^4+u^3+3u^2+2u+1)^3(u^{36}-2u^{35}+\cdots-3584u+2048)$
c_5	$((u^2-u+1)^4)(u^4+u^3+u^2+1)^3(u^{36}+2u^{35}+\cdots-3u+4)$
c_6	$((u^4+u^3+3u^2+2u+1)^2)(u^{12}+4u^{10}+\cdots-2u+1)$ $\cdot(u^{36}+3u^{35}+\cdots+4u+1)$
c_7	$((u^4+u^3+u^2+1)^2)(u^{12}+4u^{10}+\cdots-2u+1)(u^{36}+3u^{35}+\cdots+2u+1)$
c_9, c_{10}	$((u^4-u^3+3u^2-2u+1)^2)(u^{12}+4u^{10}+\cdots-2u+1)$ $\cdot(u^{36}+3u^{35}+\cdots+4u+1)$
c_{11}	$((u^4-u^3+u^2+1)^2)(u^{12}+4u^{10}+\cdots-2u+1)(u^{36}+3u^{35}+\cdots+2u+1)$
c_{12}	$((u^4-u^3+3u^2-2u+1)^2)(u^{12}-8u^{11}+\cdots-10u+1)$ $\cdot(u^{36}-23u^{35}+\cdots-6u+1)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^2+y+1)^4(y^4+5y^3+7y^2+2y+1)^3$ $\cdot(y^{36}+34y^{35}+\cdots+19807y+256)$
c_2, c_5	$(y^2+y+1)^4(y^4+y^3+3y^2+2y+1)^3$ $\cdot(y^{36}+10y^{35}+\cdots+255y+16)$
c_3	$(y^2+y+1)^4(y^4+9y^3+31y^2+19y+4)^3$ $\cdot(y^{36}+58y^{35}+\cdots+87628895247y+3914254096)$
c_4, c_8	$y^8(y^4+5y^3+7y^2+2y+1)^3$ $\cdot(y^{36}+30y^{35}+\cdots+13893632y+4194304)$
c_6, c_9, c_{10}	$((y^4+5y^3+7y^2+2y+1)^2)(y^{12}+8y^{11}+\cdots+10y+1)$ $\cdot(y^{36}+27y^{35}+\cdots+6y+1)$
c_7, c_{11}	$((y^4+y^3+3y^2+2y+1)^2)(y^{12}+8y^{11}+\cdots+10y+1)$ $\cdot(y^{36}+23y^{35}+\cdots+6y+1)$
c_{12}	$((y^4+5y^3+7y^2+2y+1)^2)(y^{12}-8y^{11}+\cdots+2y+1)$ $\cdot(y^{36}-17y^{35}+\cdots+6y+1)$