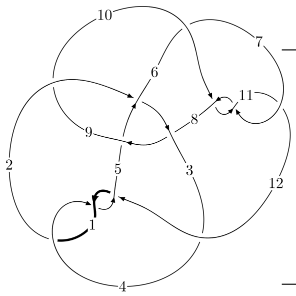
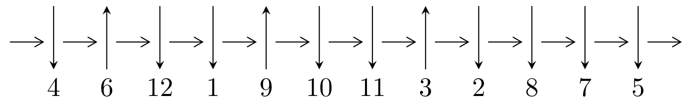
$12a_{1010}$ $(K12a_{1010})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -u^{11} - 2u^{10} - 6u^9 - 9u^8 - 12u^7 - 13u^6 - 8u^5 - 5u^4 + u^2 + b,$$
$$u^{11} + 2u^{10} + 7u^9 + 10u^8 + 17u^7 + 17u^6 + 16u^5 + 10u^4 + 3u^3 + a - 2u - 1,$$
$$u^{13} + 2u^{12} + 8u^{11} + 12u^{10} + 23u^9 + 26u^8 + 28u^7 + 22u^6 + 10u^5 + 2u^4 - 4u^3 - 4u^2 - u - 1\rangle$$
$$I_2^u = \langle -1.77519 \times 10^{76}u^{83} + 3.36042 \times 10^{76}u^{82} + \cdots + 4.02015 \times 10^{76}b - 3.79501 \times 10^{75},$$
$$1.26819 \times 10^{76}u^{83} - 1.95398 \times 10^{76}u^{82} + \cdots + 4.02015 \times 10^{76}a - 7.98274 \times 10^{76},\ u^{84} - u^{83} + \cdots - 8u + 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 97 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.

$$\boldsymbol{I_1^u = \langle -u^{11} - 2u^{10} + \cdots + u^2 + b,\ u^{11} + 2u^{10} + \cdots + a - 1,\ u^{13} + 2u^{12} + \cdots - u - 1\rangle}$$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^{11} - 2u^{10} + \cdots + 2u + 1 \\ u^{11} + 2u^{10} + 6u^9 + 9u^8 + 12u^7 + 13u^6 + 8u^5 + 5u^4 - u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u^8 + u^7 + 4u^6 + 3u^5 + 5u^4 + 2u^3 + u^2 - u - 1 \\ -u^8 - u^7 - 3u^6 - 3u^5 - 2u^4 - 2u^3 + u^2 + u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^{11} - 2u^{10} + \cdots - 2u^2 + u \\ u^{11} + 2u^{10} + 6u^9 + 8u^8 + 11u^7 + 10u^6 + 6u^5 + 3u^4 - u^3 - 2u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^{10} + 2u^9 + 7u^8 + 10u^7 + 16u^6 + 16u^5 + 13u^4 + 8u^3 + u^2 - 1 \\ u^{12} + 2u^{11} + 6u^{10} + 8u^9 + 10u^8 + 8u^7 + 2u^6 - 2u^5 - 5u^4 - 4u^3 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u^2 + 1 \\ -u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^5 + 2u^3 + u \\ -u^5 - u^3 + u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^{12} - 2u^{11} + \cdots + u + 1 \\ u^{12} + 2u^{11} + 7u^{10} + 10u^9 + 16u^8 + 16u^7 + 13u^6 + 8u^5 + u^4 - u^3 - u^2 - u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^{11} - 2u^{10} + \cdots + u + 1 \\ 2u^{11} + 4u^{10} + \cdots - u - 1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= 4u^{12} + 4u^{11} + 24u^{10} + 20u^9 + 52u^8 + 36u^7 + 48u^6 + 32u^5 + 24u^4 + 24u^3 + 16u^2 + 12u + 2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4, c_7 c_{10}, c_{11}, c_{12}	$u^{13} - 2u^{12} + \cdots - u + 1$
c_2, c_5	$u^{13} + 2u^{10} + 7u^9 + 10u^6 + 12u^5 - 8u^4 + 4u^3 + 4u^2 + u - 1$
c_3, c_6	$u^{13} + 2u^{12} + \cdots + 5u + 2$
c_8	$u^{13} - 19u^{12} + \cdots + 1856u - 256$
c_9	$u^{13} - 19u^{12} + \cdots + 1344u - 192$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4, c_7 c_{10}, c_{11}, c_{12}	$y^{13} + 12y^{12} + \cdots - 7y - 1$
c_2, c_5	$y^{13} + 14y^{11} + \cdots + 9y - 1$
c_3, c_6	$y^{13} - 4y^{12} + \cdots - 39y - 4$
c_8	$y^{13} - 35y^{12} + \cdots + 135168y - 65536$
c_9	$y^{13} - 37y^{12} + \cdots + 49152y - 36864$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.345201 + 1.021440I$ $a = 0.383027 + 0.071451I$ $b = 0.786816 + 0.242416I$	$-0.092600 - 0.790634I$	$-5.74730 - 0.20798I$
$u = -0.345201 - 1.021440I$ $a = 0.383027 - 0.071451I$ $b = 0.786816 - 0.242416I$	$-0.092600 + 0.790634I$	$-5.74730 + 0.20798I$
$u = -0.816966 + 0.218516I$ $a = -1.090410 - 0.648020I$ $b = 0.316522 - 0.929361I$	$-4.93693 + 9.42698I$	$-10.17355 - 7.65318I$
$u = -0.816966 - 0.218516I$ $a = -1.090410 + 0.648020I$ $b = 0.316522 + 0.929361I$	$-4.93693 - 9.42698I$	$-10.17355 + 7.65318I$
$u = 0.242549 + 1.320770I$ $a = 2.31317 + 2.33263I$ $b = -2.01116 - 2.58449I$	$5.96169 - 6.15155I$	$2.5842 - 14.2195I$
$u = 0.242549 - 1.320770I$ $a = 2.31317 - 2.33263I$ $b = -2.01116 + 2.58449I$	$5.96169 + 6.15155I$	$2.5842 + 14.2195I$
$u = 0.609274$ $a = -2.87003$ $b = 2.28717$	-2.44873	31.6660
$u = -0.08989 + 1.44411I$ $a = 0.86609 + 1.34154I$ $b = -1.31236 - 2.11003I$	$13.07620 + 0.19322I$	$5.00344 + 0.65090I$
$u = -0.08989 - 1.44411I$ $a = 0.86609 - 1.34154I$ $b = -1.31236 + 2.11003I$	$13.07620 - 0.19322I$	$5.00344 - 0.65090I$
$u = -0.34207 + 1.41123I$ $a = -0.20187 - 2.15080I$ $b = -0.37276 + 3.06306I$	$5.4451 + 17.8321I$	$-1.52643 - 9.77243I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.34207 - 1.41123I$ $a = -0.20187 + 2.15080I$ $b = -0.37276 - 3.06306I$	$5.4451 - 17.8321I$	$-1.52643 + 9.77243I$
$u = 0.046940 + 0.495776I$ $a = 0.665010 + 1.116330I$ $b = 0.449357 + 0.078161I$	$0.68765 - 1.39515I$	$-0.97323 + 4.26024I$
$u = 0.046940 - 0.495776I$ $a = 0.665010 - 1.116330I$ $b = 0.449357 - 0.078161I$	$0.68765 + 1.39515I$	$-0.97323 - 4.26024I$

II.

$\boldsymbol{I^u_2 = \langle -1.78\times10^{76}u^{83}+3.36\times10^{76}u^{82}+\cdots+4.02\times10^{76}b-3.80\times10^{75},\ 1.27\times10^{76}u^{83}-1.95\times10^{76}u^{82}+\cdots+4.02\times10^{76}a-7.98\times10^{76},\ u^{84}-u^{83}+\cdots-8u+1\rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_4 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_2 = \begin{pmatrix}1\\u^2\end{pmatrix}$$
$$a_5 = \begin{pmatrix}-u\\u\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-0.315458u^{83}+0.486047u^{82}+\cdots+5.80096u+1.98568\\0.441574u^{83}-0.835893u^{82}+\cdots-5.12507u+0.0943996\end{pmatrix}$$
$$a_6 = \begin{pmatrix}0.789727u^{83}-0.878458u^{82}+\cdots+11.7409u-0.991810\\0.518038u^{83}-0.964879u^{82}+\cdots-4.65016u+0.772193\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}-0.0980563u^{83}+0.387555u^{82}+\cdots+12.6062u+1.72069\\0.0831270u^{83}-0.0730730u^{82}+\cdots-4.39119u-0.0245108\end{pmatrix}$$
$$a_7 = \begin{pmatrix}0.0825732u^{83}+0.185608u^{82}+\cdots-8.24132u-0.987882\\0.241456u^{83}-1.04811u^{82}+\cdots+5.35494u-0.163213\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}u^2+1\\-u^2\end{pmatrix}$$
$$a_3 = \begin{pmatrix}u^5+2u^3+u\\-u^5-u^3+u\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-0.567135u^{83}+0.694103u^{82}+\cdots+11.9492u+1.30203\\0.271257u^{83}-0.00854034u^{82}+\cdots-3.68237u-0.132308\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-0.934228u^{83}+0.597004u^{82}+\cdots+6.80551u+0.971587\\-0.0459951u^{83}+0.774208u^{82}+\cdots-3.42474u+0.306200\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4.70327u^{83}+5.21911u^{82}+\cdots+16.9568u-8.13028$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4, c_7 c_{10}, c_{11}, c_{12}	$u^{84} + u^{83} + \cdots + 8u + 1$
c_2, c_5	$u^{84} - 7u^{83} + \cdots + 8u^2 + 1$
c_3, c_6	$u^{84} - u^{83} + \cdots + 124914u + 10897$
c_8	$(u^{42} + 9u^{41} + \cdots - 19u - 1)^2$
c_9	$(u^{42} + 8u^{41} + \cdots + 4u - 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4, c_7 c_{10}, c_{11}, c_{12}	$y^{84} + 71y^{83} + \cdots + 392y^2 + 1$
c_2, c_5	$y^{84} + 7y^{83} + \cdots + 16y + 1$
c_3, c_6	$y^{84} - 29y^{83} + \cdots + 1118832658y + 118744609$
c_8	$(y^{42} - 29y^{41} + \cdots - 99y + 1)^2$
c_9	$(y^{42} - 42y^{41} + \cdots - 64y + 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.518175 + 0.869909I$ $a = -0.038515 - 0.361398I$ $b = -0.396322 - 0.279186I$	$-2.21491 - 3.65443I$	0
$u = 0.518175 - 0.869909I$ $a = -0.038515 + 0.361398I$ $b = -0.396322 + 0.279186I$	$-2.21491 + 3.65443I$	0
$u = -0.486616 + 0.918991I$ $a = 0.669010 - 0.149675I$ $b = 0.548977 + 0.391483I$	$2.27560 - 8.94034I$	0
$u = -0.486616 - 0.918991I$ $a = 0.669010 + 0.149675I$ $b = 0.548977 - 0.391483I$	$2.27560 + 8.94034I$	0
$u = -0.433633 + 0.954309I$ $a = -0.568715 + 0.074268I$ $b = -0.630900 - 0.351516I$	$-2.64853 - 4.93654I$	0
$u = -0.433633 - 0.954309I$ $a = -0.568715 - 0.074268I$ $b = -0.630900 + 0.351516I$	$-2.64853 + 4.93654I$	0
$u = 0.874722 + 0.339102I$ $a = 0.230055 - 0.515951I$ $b = -0.327717 - 0.197359I$	$-0.08162 - 4.63366I$	0
$u = 0.874722 - 0.339102I$ $a = 0.230055 + 0.515951I$ $b = -0.327717 + 0.197359I$	$-0.08162 + 4.63366I$	0
$u = 0.922673 + 0.158839I$ $a = 0.134609 - 0.475277I$ $b = -0.171410 - 0.216206I$	$-0.40808 + 2.05165I$	0
$u = 0.922673 - 0.158839I$ $a = 0.134609 + 0.475277I$ $b = -0.171410 + 0.216206I$	$-0.40808 - 2.05165I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.875995 + 0.247622I$ $a = -0.202518 + 0.483595I$ $b = 0.264623 + 0.227684I$	$-4.19534 - 1.24503I$	$-19.3254 + 4.7543I$
$u = 0.875995 - 0.247622I$ $a = -0.202518 - 0.483595I$ $b = 0.264623 - 0.227684I$	$-4.19534 + 1.24503I$	$-19.3254 - 4.7543I$
$u = 0.589935 + 0.687179I$ $a = -0.092443 + 0.519015I$ $b = 0.441781 + 0.227681I$	$1.163260 - 0.381253I$	$-6.00000 + 5.04367I$
$u = 0.589935 - 0.687179I$ $a = -0.092443 - 0.519015I$ $b = 0.441781 - 0.227681I$	$1.163260 + 0.381253I$	$-6.00000 - 5.04367I$
$u = 0.542934 + 0.983292I$ $a = 0.024629 + 0.211855I$ $b = 0.392576 + 0.359601I$	$2.14428 - 7.17345I$	0
$u = 0.542934 - 0.983292I$ $a = 0.024629 - 0.211855I$ $b = 0.392576 - 0.359601I$	$2.14428 + 7.17345I$	0
$u = -0.829852 + 0.247067I$ $a = 1.064070 + 0.579575I$ $b = -0.354088 + 0.962644I$	$0.17793 + 13.60140I$	$-5.67868 - 8.84142I$
$u = -0.829852 - 0.247067I$ $a = 1.064070 - 0.579575I$ $b = -0.354088 - 0.962644I$	$0.17793 - 13.60140I$	$-5.67868 + 8.84142I$
$u = -0.782980 + 0.182023I$ $a = 1.108420 + 0.771590I$ $b = -0.240622 + 0.900055I$	$-2.64853 + 4.93654I$	$-8.21045 - 3.85583I$
$u = -0.782980 - 0.182023I$ $a = 1.108420 - 0.771590I$ $b = -0.240622 - 0.900055I$	$-2.64853 - 4.93654I$	$-8.21045 + 3.85583I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.181275 + 1.215690I$ $a = -0.97248 - 1.68480I$ $b = 0.82732 + 2.93963I$	$4.16290 - 2.67804I$	0
$u = -0.181275 - 1.215690I$ $a = -0.97248 + 1.68480I$ $b = 0.82732 - 2.93963I$	$4.16290 + 2.67804I$	0
$u = -0.213038 + 1.221080I$ $a = -0.273011 + 0.639939I$ $b = 1.57872 - 0.41599I$	$1.163260 - 0.381253I$	0
$u = -0.213038 - 1.221080I$ $a = -0.273011 - 0.639939I$ $b = 1.57872 + 0.41599I$	$1.163260 + 0.381253I$	0
$u = 0.223743 + 1.261850I$ $a = 1.64598 + 2.46908I$ $b = -1.44659 - 2.87840I$	5.38892	0
$u = 0.223743 - 1.261850I$ $a = 1.64598 - 2.46908I$ $b = -1.44659 + 2.87840I$	5.38892	0
$u = -0.243997 + 1.261430I$ $a = 0.79293 + 2.00931I$ $b = -0.39956 - 3.42872I$	$-0.40808 + 2.05165I$	0
$u = -0.243997 - 1.261430I$ $a = 0.79293 - 2.00931I$ $b = -0.39956 + 3.42872I$	$-0.40808 - 2.05165I$	0
$u = 0.191076 + 1.275400I$ $a = 1.83468 + 0.25198I$ $b = -1.397140 - 0.155462I$	$2.23419 - 2.19201I$	0
$u = 0.191076 - 1.275400I$ $a = 1.83468 - 0.25198I$ $b = -1.397140 + 0.155462I$	$2.23419 + 2.19201I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.654693+0.253029I$ $a=-0.661570-0.897779I$ $b=\ \ 0.126788-1.087400I$	$5.45130+4.89000I$	$-2.04083-7.34150I$
$u=-0.654693-0.253029I$ $a=-0.661570+0.897779I$ $b=\ \ 0.126788+1.087400I$	$5.45130-4.89000I$	$-2.04083+7.34150I$
$u=-0.097059+1.295830I$ $a=-0.31003-1.38850I$ $b=-0.73782+1.56661I$	$7.82402-3.09693I$	0
$u=-0.097059-1.295830I$ $a=-0.31003+1.38850I$ $b=-0.73782-1.56661I$	$7.82402+3.09693I$	0
$u=-0.689220+0.080903I$ $a=\ \ 1.30178+1.19981I$ $b=\ \ 0.002720+0.837825I$	$-2.21491+3.65443I$	$-12.4846-8.5699I$
$u=-0.689220-0.080903I$ $a=\ \ 1.30178-1.19981I$ $b=\ \ 0.002720-0.837825I$	$-2.21491-3.65443I$	$-12.4846+8.5699I$
$u=-0.396279+0.566081I$ $a=-1.262610-0.217005I$ $b=-0.358488-0.131013I$	$6.62858-1.39134I$	$1.290119+0.468519I$
$u=-0.396279-0.566081I$ $a=-1.262610+0.217005I$ $b=-0.358488+0.131013I$	$6.62858+1.39134I$	$1.290119-0.468519I$
$u=-0.264019+1.290660I$ $a=\ \ 0.906071-0.047046I$ $b=-2.26160-0.54402I$	$-0.08162+4.63366I$	0
$u=-0.264019-1.290660I$ $a=\ \ 0.906071+0.047046I$ $b=-2.26160+0.54402I$	$-0.08162-4.63366I$	0

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.232670 + 1.297620I$ $a = -2.13788 - 2.73733I$ $b = 1.91976 + 3.02429I$	$1.63132 - 3.03620I$	0
$u = 0.232670 - 1.297620I$ $a = -2.13788 + 2.73733I$ $b = 1.91976 - 3.02429I$	$1.63132 + 3.03620I$	0
$u = -0.665673 + 0.116795I$ $a = 1.98351 - 0.73015I$ $b = 0.186269 - 0.357589I$	$0.97628 + 5.72904I$	$-8.53885 - 9.66512I$
$u = -0.665673 - 0.116795I$ $a = 1.98351 + 0.73015I$ $b = 0.186269 + 0.357589I$	$0.97628 - 5.72904I$	$-8.53885 + 9.66512I$
$u = -0.671665 + 0.028872I$ $a = -1.86929 + 1.10308I$ $b = -0.181551 + 0.595117I$	$-4.19534 + 1.24503I$	$-19.3254 - 4.7543I$
$u = -0.671665 - 0.028872I$ $a = -1.86929 - 1.10308I$ $b = -0.181551 - 0.595117I$	$-4.19534 - 1.24503I$	$-19.3254 + 4.7543I$
$u = -0.279831 + 1.311700I$ $a = -0.44458 - 2.14417I$ $b = -0.20861 + 3.37194I$	$2.14428 + 7.17345I$	0
$u = -0.279831 - 1.311700I$ $a = -0.44458 + 2.14417I$ $b = -0.20861 - 3.37194I$	$2.14428 - 7.17345I$	0
$u = 0.169101 + 1.333000I$ $a = -1.96189 - 1.30999I$ $b = 1.49632 + 1.40578I$	6.83951	0
$u = 0.169101 - 1.333000I$ $a = -1.96189 + 1.30999I$ $b = 1.49632 - 1.40578I$	6.83951	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.271899 + 1.335600I$ $a = -0.976790 - 0.436319I$ $b = 2.12600 + 1.18794I$	$5.55420 + 9.14579I$	0
$u = -0.271899 - 1.335600I$ $a = -0.976790 + 0.436319I$ $b = 2.12600 - 1.18794I$	$5.55420 - 9.14579I$	0
$u = 0.253751 + 1.345840I$ $a = -0.46166 + 1.46887I$ $b = 0.20067 - 1.82877I$	$3.26207 - 3.66273I$	0
$u = 0.253751 - 1.345840I$ $a = -0.46166 - 1.46887I$ $b = 0.20067 + 1.82877I$	$3.26207 + 3.66273I$	0
$u = 0.400341 + 1.315590I$ $a = -0.151092 + 0.581745I$ $b = -0.210879 - 0.996363I$	$4.16290 - 2.67804I$	0
$u = 0.400341 - 1.315590I$ $a = -0.151092 - 0.581745I$ $b = -0.210879 + 0.996363I$	$4.16290 + 2.67804I$	0
$u = 0.618543 + 0.047649I$ $a = 2.80528 + 0.04414I$ $b = -2.15290 + 0.03638I$	$1.63132 - 3.03620I$	$16.2002 - 11.9033I$
$u = 0.618543 - 0.047649I$ $a = 2.80528 - 0.04414I$ $b = -2.15290 - 0.03638I$	$1.63132 + 3.03620I$	$16.2002 + 11.9033I$
$u = 0.601189 + 0.103705I$ $a = 0.620455 - 0.101552I$ $b = -0.499415 - 0.638711I$	$-1.35422 - 0.52269I$	$-7.55055 - 0.33202I$
$u = 0.601189 - 0.103705I$ $a = 0.620455 + 0.101552I$ $b = -0.499415 + 0.638711I$	$-1.35422 + 0.52269I$	$-7.55055 + 0.33202I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.012027 + 1.402540I$ $a = -0.83750 - 1.49408I$ $b = 1.12949 + 2.23412I$	$6.62858 - 1.39134I$	0
$u = -0.012027 - 1.402540I$ $a = -0.83750 + 1.49408I$ $b = 1.12949 - 2.23412I$	$6.62858 + 1.39134I$	0
$u = -0.325385 + 1.374120I$ $a = -0.25382 - 2.11881I$ $b = -0.35289 + 3.10453I$	$2.27560 + 8.94034I$	0
$u = -0.325385 - 1.374120I$ $a = -0.25382 + 2.11881I$ $b = -0.35289 - 3.10453I$	$2.27560 - 8.94034I$	0
$u = -0.26872 + 1.38872I$ $a = 0.27275 + 2.17820I$ $b = 0.48372 - 3.10703I$	$10.65060 + 8.27956I$	0
$u = -0.26872 - 1.38872I$ $a = 0.27275 - 2.17820I$ $b = 0.48372 + 3.10703I$	$10.65060 - 8.27956I$	0
$u = -0.33963 + 1.39512I$ $a = 0.21657 + 2.13132I$ $b = 0.36363 - 3.07248I$	$0.17793 + 13.60140I$	0
$u = -0.33963 - 1.39512I$ $a = 0.21657 - 2.13132I$ $b = 0.36363 + 3.07248I$	$0.17793 - 13.60140I$	0
$u = 0.36831 + 1.39668I$ $a = -0.009205 - 0.851401I$ $b = 0.340567 + 1.271450I$	$0.97628 - 5.72904I$	0
$u = 0.36831 - 1.39668I$ $a = -0.009205 + 0.851401I$ $b = 0.340567 - 1.271450I$	$0.97628 + 5.72904I$	0

Solutions to I_2^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.21161 + 1.45666I$ $a = -0.30774 - 1.38801I$ $b = 0.58867 + 1.86348I$	$7.82402 - 3.09693I$	0
$u = 0.21161 - 1.45666I$ $a = -0.30774 + 1.38801I$ $b = 0.58867 - 1.86348I$	$7.82402 + 3.09693I$	0
$u = 0.04309 + 1.47202I$ $a = 0.69091 + 1.44752I$ $b = -1.01399 - 2.06695I$	$5.45130 - 4.89000I$	0
$u = 0.04309 - 1.47202I$ $a = 0.69091 - 1.44752I$ $b = -1.01399 + 2.06695I$	$5.45130 + 4.89000I$	0
$u = 0.36652 + 1.44263I$ $a = 0.150102 + 0.905438I$ $b = -0.47705 - 1.33644I$	$5.55420 - 9.14579I$	0
$u = 0.36652 - 1.44263I$ $a = 0.150102 - 0.905438I$ $b = -0.47705 + 1.33644I$	$5.55420 + 9.14579I$	0
$u = 0.02486 + 1.51626I$ $a = -0.69442 - 1.38331I$ $b = 1.06466 + 1.98709I$	$10.65060 - 8.27956I$	0
$u = 0.02486 - 1.51626I$ $a = -0.69442 + 1.38331I$ $b = 1.06466 - 1.98709I$	$10.65060 + 8.27956I$	0
$u = 0.411613 + 0.144017I$ $a = -2.50177 - 0.61683I$ $b = 1.344230 + 0.260671I$	$2.23419 + 2.19201I$	$-3.74038 - 7.88851I$
$u = 0.411613 - 0.144017I$ $a = -2.50177 + 0.61683I$ $b = 1.344230 - 0.260671I$	$2.23419 - 2.19201I$	$-3.74038 + 7.88851I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.014444 + 0.316245I$ $a = -2.50337 + 0.43646I$ $b = 0.643308 + 0.986079I$	$3.26207 - 3.66273I$	$-0.562666 + 0.820436I$
$u = 0.014444 - 0.316245I$ $a = -2.50337 - 0.43646I$ $b = 0.643308 - 0.986079I$	$3.26207 + 3.66273I$	$-0.562666 - 0.820436I$
$u = 0.152196 + 0.142659I$ $a = 3.54109 + 0.72739I$ $b = -0.751283 - 0.524651I$	$-1.35422 - 0.52269I$	$-7.55055 - 0.33202I$
$u = 0.152196 - 0.142659I$ $a = 3.54109 - 0.72739I$ $b = -0.751283 + 0.524651I$	$-1.35422 + 0.52269I$	$-7.55055 + 0.33202I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_4, c_7 c_{10}, c_{11}, c_{12}	$(u^{13} - 2u^{12} + \cdots - u + 1)(u^{84} + u^{83} + \cdots + 8u + 1)$
c_2, c_5	$(u^{13} + 2u^{10} + 7u^9 + 10u^6 + 12u^5 - 8u^4 + 4u^3 + 4u^2 + u - 1)$ $\cdot (u^{84} - 7u^{83} + \cdots + 8u^2 + 1)$
c_3, c_6	$(u^{13} + 2u^{12} + \cdots + 5u + 2)(u^{84} - u^{83} + \cdots + 124914u + 10897)$
c_8	$(u^{13} - 19u^{12} + \cdots + 1856u - 256)(u^{42} + 9u^{41} + \cdots - 19u - 1)^2$
c_9	$(u^{13} - 19u^{12} + \cdots + 1344u - 192)(u^{42} + 8u^{41} + \cdots + 4u - 1)^2$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4, c_7 c_{10}, c_{11}, c_{12}	$(y^{13} + 12y^{12} + \cdots - 7y - 1)(y^{84} + 71y^{83} + \cdots + 392y^2 + 1)$
c_2, c_5	$(y^{13} + 14y^{11} + \cdots + 9y - 1)(y^{84} + 7y^{83} + \cdots + 16y + 1)$
c_3, c_6	$(y^{13} - 4y^{12} + \cdots - 39y - 4)$ $\cdot (y^{84} - 29y^{83} + \cdots + 1118832658y + 118744609)$
c_8	$(y^{13} - 35y^{12} + \cdots + 135168y - 65536)$ $\cdot (y^{42} - 29y^{41} + \cdots - 99y + 1)^2$
c_9	$(y^{13} - 37y^{12} + \cdots + 49152y - 36864)(y^{42} - 42y^{41} + \cdots - 64y + 1)^2$