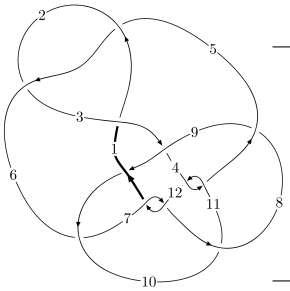
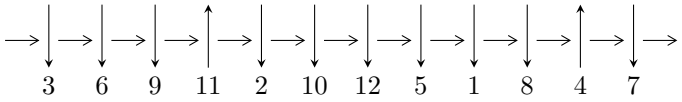
$12a_{0393}$ $(K12a_{0393})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$$\underset{c_4}{4,11} \to \underset{c_8}{5,8} \to \underset{c_{11}}{9} \to \underset{c_3}{12} \to \underset{c_7}{3} \to \underset{c_{12}}{7} \to \underset{c_{10}}{1} \to \underset{c_6}{10} \to \underset{c_2}{6} \to 2 \longrightarrow\!\!\!\!\rightarrow c_1, c_5, c_9$$

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

$$\begin{aligned} I_1^u = \langle & 2.16436 \times 10^{820} u^{170} - 7.16961 \times 10^{820} u^{169} + \cdots + 1.69091 \times 10^{821} b - 3.15772 \times 10^{824}, \\ & 2.26218 \times 10^{824} u^{170} - 1.11946 \times 10^{825} u^{169} + \cdots + 1.66706 \times 10^{825} a - 9.23150 \times 10^{828}, \\ & u^{171} - 2u^{170} + \cdots + 4671u + 9859 \rangle \\ I_2^u = \langle & -1.47468 \times 10^{22} u^{40} - 9.65322 \times 10^{22} u^{39} + \cdots + 1.45371 \times 10^{21} b - 2.19717 \times 10^{23}, \\ & 4.08057 \times 10^{20} u^{40} - 2.19309 \times 10^{23} u^{39} + \cdots + 1.45371 \times 10^{21} a - 5.58423 \times 10^{23}, \ u^{41} + u^{40} + \cdots + 16u^2 + \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 212 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. $\boldsymbol{I_1^u = \langle 2.16 \times 10^{820} u^{170} - 7.17 \times 10^{820} u^{169} + \cdots + 1.69 \times 10^{821} b - 3.16 \times 10^{824},\ 2.26 \times 10^{824} u^{170} - 1.12 \times 10^{825} u^{169} + \cdots + 1.67 \times 10^{825} a - 9.23 \times 10^{828},\ u^{171} - 2u^{170} + \cdots + 4671u + 9859 \rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.135698u^{170} + 0.671518u^{169} + \cdots + 3689.38u + 5537.58 \\ -0.128000u^{170} + 0.424010u^{169} + \cdots + 603.968u + 1867.47 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.319349u^{170} + 1.10997u^{169} + \cdots + 3616.53u + 7614.90 \\ -0.305108u^{170} + 0.760621u^{169} + \cdots - 874.296u + 2568.95 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.632479u^{170} + 1.87166u^{169} + \cdots + 2965.36u + 12068.5 \\ -0.678695u^{170} + 1.60465u^{169} + \cdots - 1882.78u + 7820.21 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.231129u^{170} + 0.997129u^{169} + \cdots + 4697.68u + 7825.97 \\ -0.223431u^{170} + 0.749621u^{169} + \cdots + 1612.26u + 4155.86 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.697139u^{170} - 1.39628u^{169} + \cdots + 5773.34u - 2258.59 \\ 0.597639u^{170} - 1.19850u^{169} + \cdots + 4279.61u - 2387.93 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -1.50364u^{170} + 2.34391u^{169} + \cdots - 21755.3u - 2660.63 \\ -0.880774u^{170} + 1.08735u^{169} + \cdots - 16968.6u - 4931.27 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.828240u^{170} + 0.786031u^{169} + \cdots - 18991.7u - 7508.20 \\ -0.511994u^{170} + 0.263356u^{169} + \cdots - 14937.7u - 7521.50 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.482941u^{170} + 0.744544u^{169} + \cdots - 5025.31u + 1650.19 \\ -0.152795u^{170} + 0.157950u^{169} + \cdots - 2168.84u + 595.438 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 1.62396u^{170} - 2.54230u^{169} + \cdots + 19935.1u + 2386.95$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{171} + 78u^{170} + \cdots + 2521u + 49$
c_2, c_5	$u^{171} + 4u^{170} + \cdots + 111u + 7$
c_3	$u^{171} - u^{170} + \cdots - 404430848u + 29671424$
c_4, c_{11}	$u^{171} - 2u^{170} + \cdots + 4671u + 9859$
c_6	$u^{171} - 3u^{170} + \cdots + 37835u + 2123$
c_7, c_{12}	$u^{171} + 2u^{170} + \cdots - 528354u + 43591$
c_8	$u^{171} + 5u^{170} + \cdots + 61115146u + 5504449$
c_9	$u^{171} + 8u^{170} + \cdots - 25208926u + 28448137$
c_{10}	$u^{171} + 8u^{170} + \cdots + 208397u + 48167$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{171} + 46y^{170} + \cdots + 1499345y - 2401$
c_2, c_5	$y^{171} - 78y^{170} + \cdots + 2521y - 49$
c_3	$y^{171} + 15y^{170} + \cdots - 5219403641651200y - 880393402187776$
c_4, c_{11}	$y^{171} + 92y^{170} + \cdots - 778002993y - 97199881$
c_6	$y^{171} + 41y^{170} + \cdots + 1410817697y - 4507129$
c_7, c_{12}	$y^{171} + 126y^{170} + \cdots - 157098337588y - 1900175281$
c_8	$y^{171} - 47y^{170} + \cdots + 638582748630030y - 30298958793601$
c_9	$y^{171} + 46y^{170} + \cdots - 25343801026808550y - 809296498770769$
c_{10}	$y^{171} - 10y^{170} + \cdots + 163308109881y - 2320059889$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 0.522816 + 0.862319I$ $a = -1.38476 + 0.76073I$ $b = -0.23131 + 1.56919I$	$2.60729 - 1.52346I$	0
$u = \ 0.522816 - 0.862319I$ $a = -1.38476 - 0.76073I$ $b = -0.23131 - 1.56919I$	$2.60729 + 1.52346I$	0
$u = \ 0.909426 + 0.435762I$ $a = -0.119413 - 0.866013I$ $b = \ 0.390430 + 0.327958I$	$4.06706 + 0.85033I$	0
$u = \ 0.909426 - 0.435762I$ $a = -0.119413 + 0.866013I$ $b = \ 0.390430 - 0.327958I$	$4.06706 - 0.85033I$	0
$u = -0.408687 + 0.900797I$ $a = \ 0.513684 - 0.597894I$ $b = \ 1.42692 - 1.76208I$	$5.28982 - 5.58495I$	0
$u = -0.408687 - 0.900797I$ $a = \ 0.513684 + 0.597894I$ $b = \ 1.42692 + 1.76208I$	$5.28982 + 5.58495I$	0
$u = \ 0.360268 + 0.917654I$ $a = \ 0.520539 + 1.062350I$ $b = \ 1.47874 + 1.40925I$	$-0.0998941 - 0.0172681I$	0
$u = \ 0.360268 - 0.917654I$ $a = \ 0.520539 - 1.062350I$ $b = \ 1.47874 - 1.40925I$	$-0.0998941 + 0.0172681I$	0
$u = \ 0.245163 + 0.991099I$ $a = -0.008836 - 0.982029I$ $b = -1.27704 - 1.77108I$	$-1.25424 + 5.11311I$	0
$u = \ 0.245163 - 0.991099I$ $a = -0.008836 + 0.982029I$ $b = -1.27704 + 1.77108I$	$-1.25424 - 5.11311I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.959438+0.132908I$ $a=\ \ 0.752972+0.258045I$ $b=-0.185217+0.308499I$	$-3.70458-0.52517I$	0
$u=-0.959438-0.132908I$ $a=\ \ 0.752972-0.258045I$ $b=-0.185217-0.308499I$	$-3.70458+0.52517I$	0
$u=\ \ 0.450784+0.931709I$ $a=-0.641768-0.682341I$ $b=-1.45912-1.78519I$	$3.89033+11.06030I$	0
$u=\ \ 0.450784-0.931709I$ $a=-0.641768+0.682341I$ $b=-1.45912+1.78519I$	$3.89033-11.06030I$	0
$u=\ \ 0.143513+0.952277I$ $a=-0.126743+0.262061I$ $b=\ \ 0.268539+0.771000I$	$-0.77746+1.36820I$	0
$u=\ \ 0.143513-0.952277I$ $a=-0.126743-0.262061I$ $b=\ \ 0.268539-0.771000I$	$-0.77746-1.36820I$	0
$u=-0.327368+0.999695I$ $a=-0.525772+0.390138I$ $b=-0.047209+1.285440I$	$-0.24255+1.97395I$	0
$u=-0.327368-0.999695I$ $a=-0.525772-0.390138I$ $b=-0.047209-1.285440I$	$-0.24255-1.97395I$	0
$u=-0.892591+0.560383I$ $a=\ \ 0.126506-0.724879I$ $b=-0.481848+0.396131I$	$3.64192-5.10552I$	0
$u=-0.892591-0.560383I$ $a=\ \ 0.126506+0.724879I$ $b=-0.481848-0.396131I$	$3.64192+5.10552I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.372716+0.988870I$ $a=\ \ 0.460916-1.169530I$ $b=-0.23905-1.70014I$	$-2.77213-1.78404I$	0
$u=-0.372716-0.988870I$ $a=\ \ 0.460916+1.169530I$ $b=-0.23905+1.70014I$	$-2.77213+1.78404I$	0
$u=\ \ 0.274336+1.024780I$ $a=\ \ 0.571806+0.302014I$ $b=-1.38226+0.57658I$	$0.50931+6.41538I$	0
$u=\ \ 0.274336-1.024780I$ $a=\ \ 0.571806-0.302014I$ $b=-1.38226-0.57658I$	$0.50931-6.41538I$	0
$u=-0.254872+0.898952I$ $a=-0.959077+0.046936I$ $b=\ \ 1.022820-0.168338I$	$3.63281-0.53934I$	0
$u=-0.254872-0.898952I$ $a=-0.959077-0.046936I$ $b=\ \ 1.022820+0.168338I$	$3.63281+0.53934I$	0
$u=-0.766566+0.742347I$ $a=\ \ 0.187282-0.294692I$ $b=-0.574949+0.697972I$	$3.14382-0.82943I$	0
$u=-0.766566-0.742347I$ $a=\ \ 0.187282+0.294692I$ $b=-0.574949-0.697972I$	$3.14382+0.82943I$	0
$u=\ \ 0.665772+0.843021I$ $a=-0.209489+0.100833I$ $b=\ \ 0.612905+0.963363I$	$2.99332+4.80623I$	0
$u=\ \ 0.665772-0.843021I$ $a=-0.209489-0.100833I$ $b=\ \ 0.612905-0.963363I$	$2.99332-4.80623I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.292872 + 0.873573I$ $a = 0.78424 + 1.95800I$ $b = 1.87599 + 2.23240I$	$2.88872 - 6.87672I$	0
$u = 0.292872 - 0.873573I$ $a = 0.78424 - 1.95800I$ $b = 1.87599 - 2.23240I$	$2.88872 + 6.87672I$	0
$u = -0.422237 + 0.814113I$ $a = 1.75628 + 0.42376I$ $b = 0.505283 + 1.221520I$	$4.82984 - 2.83468I$	0
$u = -0.422237 - 0.814113I$ $a = 1.75628 - 0.42376I$ $b = 0.505283 - 1.221520I$	$4.82984 + 2.83468I$	0
$u = -0.314631 + 0.855483I$ $a = -0.41465 + 1.87494I$ $b = -1.51920 + 2.19832I$	$4.75267 + 1.76525I$	0
$u = -0.314631 - 0.855483I$ $a = -0.41465 - 1.87494I$ $b = -1.51920 - 2.19832I$	$4.75267 - 1.76525I$	0
$u = 0.236266 + 0.872240I$ $a = -2.96674 + 0.18166I$ $b = -1.59394 + 0.69961I$	$3.00396 + 9.29509I$	0
$u = 0.236266 - 0.872240I$ $a = -2.96674 - 0.18166I$ $b = -1.59394 - 0.69961I$	$3.00396 - 9.29509I$	0
$u = -0.899123 + 0.016968I$ $a = 1.049410 - 0.458297I$ $b = 0.061777 - 0.424488I$	$-0.18450 + 9.24033I$	0
$u = -0.899123 - 0.016968I$ $a = 1.049410 + 0.458297I$ $b = 0.061777 + 0.424488I$	$-0.18450 - 9.24033I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.274759+0.844572I$ $a=\ \ 2.61389+0.22936I$ $b=\ \ 1.23531+0.83487I$	$4.85993-4.46120I$	0
$u=-0.274759-0.844572I$ $a=\ \ 2.61389-0.22936I$ $b=\ \ 1.23531-0.83487I$	$4.85993+4.46120I$	0
$u=\ \ 0.430302+1.026590I$ $a=-0.410664-1.274410I$ $b=\ \ 0.32087-1.70052I$	$-3.73105+5.90089I$	0
$u=\ \ 0.430302-1.026590I$ $a=-0.410664+1.274410I$ $b=\ \ 0.32087+1.70052I$	$-3.73105-5.90089I$	0
$u=\ \ 0.707719+0.863811I$ $a=\ \ 1.08340-0.92715I$ $b=\ \ 0.48199-1.56754I$	$-2.63787-0.95993I$	0
$u=\ \ 0.707719-0.863811I$ $a=\ \ 1.08340+0.92715I$ $b=\ \ 0.48199+1.56754I$	$-2.63787+0.95993I$	0
$u=-0.238291+1.095200I$ $a=\ \ 0.398044-1.127660I$ $b=\ \ 0.05045-1.70633I$	$-3.72734-2.25632I$	0
$u=-0.238291-1.095200I$ $a=\ \ 0.398044+1.127660I$ $b=\ \ 0.05045+1.70633I$	$-3.72734+2.25632I$	0
$u=-0.390649+0.786306I$ $a=\ \ 0.50511+1.49272I$ $b=-0.66572+2.00062I$	$4.93676-0.71005I$	0
$u=-0.390649-0.786306I$ $a=\ \ 0.50511-1.49272I$ $b=-0.66572-2.00062I$	$4.93676+0.71005I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.115242 + 0.857886I$ $a = 1.45827 - 0.76807I$ $b = -0.321149 - 0.984223I$	$-0.47057 - 3.45920I$	0
$u = 0.115242 - 0.857886I$ $a = 1.45827 + 0.76807I$ $b = -0.321149 + 0.984223I$	$-0.47057 + 3.45920I$	0
$u = 0.859103 + 0.011211I$ $a = -0.940607 + 0.513658I$ $b = 0.025476 + 0.460900I$	$2.03834 + 3.63505I$	0
$u = 0.859103 - 0.011211I$ $a = -0.940607 - 0.513658I$ $b = 0.025476 - 0.460900I$	$2.03834 - 3.63505I$	0
$u = 0.120820 + 1.149140I$ $a = -0.261231 - 1.286510I$ $b = -0.12370 - 1.95510I$	$-6.29019 - 0.80071I$	0
$u = 0.120820 - 1.149140I$ $a = -0.261231 + 1.286510I$ $b = -0.12370 + 1.95510I$	$-6.29019 + 0.80071I$	0
$u = 1.106340 + 0.335545I$ $a = -0.892783 - 0.385309I$ $b = -0.165992 + 0.564515I$	$-0.03939 - 5.59646I$	0
$u = 1.106340 - 0.335545I$ $a = -0.892783 + 0.385309I$ $b = -0.165992 - 0.564515I$	$-0.03939 + 5.59646I$	0
$u = -0.208012 + 0.817367I$ $a = -0.045393 - 0.296055I$ $b = 1.41154 - 1.85724I$	$3.97238 - 1.73980I$	0
$u = -0.208012 - 0.817367I$ $a = -0.045393 + 0.296055I$ $b = 1.41154 + 1.85724I$	$3.97238 + 1.73980I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.443856 + 0.706608I$ $a = -1.10179 + 1.23259I$ $b = 0.17499 + 1.89028I$	$3.11287 + 5.57851I$	0
$u = 0.443856 - 0.706608I$ $a = -1.10179 - 1.23259I$ $b = 0.17499 - 1.89028I$	$3.11287 - 5.57851I$	0
$u = -0.377519 + 1.105720I$ $a = -0.411133 - 0.495722I$ $b = -1.083460 - 0.467912I$	$-3.10737 + 2.60472I$	0
$u = -0.377519 - 1.105720I$ $a = -0.411133 + 0.495722I$ $b = -1.083460 + 0.467912I$	$-3.10737 - 2.60472I$	0
$u = 1.141560 + 0.273493I$ $a = -0.925304 - 0.570444I$ $b = -0.285548 + 0.438239I$	$4.0738 - 14.1133I$	0
$u = 1.141560 - 0.273493I$ $a = -0.925304 + 0.570444I$ $b = -0.285548 - 0.438239I$	$4.0738 + 14.1133I$	0
$u = 0.415281 + 1.106680I$ $a = -0.201541 - 1.230520I$ $b = 0.46732 - 1.54298I$	$-4.54754 + 0.61795I$	0
$u = 0.415281 - 1.106680I$ $a = -0.201541 + 1.230520I$ $b = 0.46732 + 1.54298I$	$-4.54754 - 0.61795I$	0
$u = 0.359487 + 1.128460I$ $a = 0.419687 + 0.572015I$ $b = -0.04631 + 1.55412I$	$0.28034 + 3.67321I$	0
$u = 0.359487 - 1.128460I$ $a = 0.419687 - 0.572015I$ $b = -0.04631 - 1.55412I$	$0.28034 - 3.67321I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.148170+0.295364I$ $a=\ \ 0.870882-0.541423I$ $b=\ \ 0.228446+0.436299I$	$6.18565+8.35593I$	0
$u=-1.148170-0.295364I$ $a=\ \ 0.870882+0.541423I$ $b=\ \ 0.228446-0.436299I$	$6.18565-8.35593I$	0
$u=\ \ 0.156475+0.782638I$ $a=-2.65771-0.48023I$ $b=-1.029510-0.011476I$	$0.78856+2.58407I$	0
$u=\ \ 0.156475-0.782638I$ $a=-2.65771+0.48023I$ $b=-1.029510+0.011476I$	$0.78856-2.58407I$	0
$u=-0.388171+1.141170I$ $a=\ \ 0.019116-0.992835I$ $b=-0.593102-1.180020I$	$-4.34916-3.57966I$	0
$u=-0.388171-1.141170I$ $a=\ \ 0.019116+0.992835I$ $b=-0.593102+1.180020I$	$-4.34916+3.57966I$	0
$u=-0.419844+0.671040I$ $a=-1.60421+0.77038I$ $b=\ \ 0.221550+0.210808I$	$5.98352+2.02173I$	0
$u=-0.419844-0.671040I$ $a=-1.60421-0.77038I$ $b=\ \ 0.221550-0.210808I$	$5.98352-2.02173I$	0
$u=\ \ 0.436436+1.129700I$ $a=\ \ 0.001555-0.319600I$ $b=\ \ 0.520056-0.249339I$	$-1.05269+1.66505I$	0
$u=\ \ 0.436436-1.129700I$ $a=\ \ 0.001555+0.319600I$ $b=\ \ 0.520056+0.249339I$	$-1.05269-1.66505I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.738744+0.258733I$ $a=-1.22091+0.81500I$ $b=-0.708497-0.264821I$	$-0.694702-0.275037I$	0
$u=-0.738744-0.258733I$ $a=-1.22091-0.81500I$ $b=-0.708497+0.264821I$	$-0.694702+0.275037I$	0
$u=0.225192+1.197090I$ $a=-0.527945-1.273280I$ $b=-0.36794-1.77147I$	$-5.86598+5.62963I$	0
$u=0.225192-1.197090I$ $a=-0.527945+1.273280I$ $b=-0.36794+1.77147I$	$-5.86598-5.62963I$	0
$u=0.492463+0.605874I$ $a=1.63519+1.01348I$ $b=-0.093735+0.292088I$	$4.85467-7.15417I$	0
$u=0.492463-0.605874I$ $a=1.63519-1.01348I$ $b=-0.093735-0.292088I$	$4.85467+7.15417I$	0
$u=0.620395+1.064620I$ $a=0.38314-1.46906I$ $b=-0.22856-2.01854I$	$-3.44295+6.23211I$	0
$u=0.620395-1.064620I$ $a=0.38314+1.46906I$ $b=-0.22856+2.01854I$	$-3.44295-6.23211I$	0
$u=-0.321074+1.191310I$ $a=0.613365-0.923046I$ $b=0.364120-1.194290I$	$-4.39198-2.68022I$	0
$u=-0.321074-1.191310I$ $a=0.613365+0.923046I$ $b=0.364120+1.194290I$	$-4.39198+2.68022I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.189110+0.371110I$ $a=\ \ 0.622727-0.428024I$ $b=\ \ 0.013470+0.406843I$	$7.28017+3.81548I$	0
$u=-1.189110-0.371110I$ $a=\ \ 0.622727+0.428024I$ $b=\ \ 0.013470-0.406843I$	$7.28017-3.81548I$	0
$u=\ \ 0.472184+1.156310I$ $a=-0.59336-1.32160I$ $b=-1.28367-1.98916I$	$-0.73295+6.48144I$	0
$u=\ \ 0.472184-1.156310I$ $a=-0.59336+1.32160I$ $b=-1.28367+1.98916I$	$-0.73295-6.48144I$	0
$u=-0.502038+1.155380I$ $a=\ \ 0.68290-1.48024I$ $b=\ \ 1.28742-2.14190I$	$-2.24635-10.55610I$	0
$u=-0.502038-1.155380I$ $a=\ \ 0.68290+1.48024I$ $b=\ \ 1.28742+2.14190I$	$-2.24635+10.55610I$	0
$u=-0.712297+0.191516I$ $a=-1.31149+1.30360I$ $b=-0.521245+0.041234I$	$0.54925+5.96235I$	0
$u=-0.712297-0.191516I$ $a=-1.31149-1.30360I$ $b=-0.521245-0.041234I$	$0.54925-5.96235I$	0
$u=-0.517576+1.157000I$ $a=\ \ 0.38791-1.62308I$ $b=\ \ 0.99696-2.19800I$	$-3.38588-4.47085I$	0
$u=-0.517576-1.157000I$ $a=\ \ 0.38791+1.62308I$ $b=\ \ 0.99696+2.19800I$	$-3.38588+4.47085I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.428089 + 1.194050I$ $a = -0.512233 - 1.265770I$ $b = -1.27779 - 1.87533I$	$-0.86391 + 6.40475I$	0
$u = 0.428089 - 1.194050I$ $a = -0.512233 + 1.265770I$ $b = -1.27779 + 1.87533I$	$-0.86391 - 6.40475I$	0
$u = 0.077315 + 0.720625I$ $a = 0.282842 - 0.173027I$ $b = -0.99146 - 2.02770I$	$1.89574 - 4.40727I$	0
$u = 0.077315 - 0.720625I$ $a = 0.282842 + 0.173027I$ $b = -0.99146 + 2.02770I$	$1.89574 + 4.40727I$	0
$u = 0.720261 + 0.072252I$ $a = 0.78213 + 1.37239I$ $b = 0.384496 - 0.155217I$	$2.37177 - 2.16911I$	0
$u = 0.720261 - 0.072252I$ $a = 0.78213 - 1.37239I$ $b = 0.384496 + 0.155217I$	$2.37177 + 2.16911I$	0
$u = -0.300750 + 1.254370I$ $a = 0.52386 - 1.33141I$ $b = 1.40445 - 1.83298I$	$-2.59933 - 3.36377I$	0
$u = -0.300750 - 1.254370I$ $a = 0.52386 + 1.33141I$ $b = 1.40445 + 1.83298I$	$-2.59933 + 3.36377I$	0
$u = 1.230950 + 0.414044I$ $a = -0.453333 - 0.353159I$ $b = 0.089262 + 0.381206I$	$6.09815 + 2.21552I$	0
$u = 1.230950 - 0.414044I$ $a = -0.453333 + 0.353159I$ $b = 0.089262 - 0.381206I$	$6.09815 - 2.21552I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.363759+1.250300I$ $a=\ 0.869644-0.391526I$ $b=\ 0.725913-0.403659I$	$-1.67404-8.42737I$	0
$u=-0.363759-1.250300I$ $a=\ 0.869644+0.391526I$ $b=\ 0.725913+0.403659I$	$-1.67404+8.42737I$	0
$u=\ 0.391387+1.243600I$ $a=-0.647592-0.298947I$ $b=-0.415732-0.263693I$	$-0.18558+3.44846I$	0
$u=\ 0.391387-1.243600I$ $a=-0.647592+0.298947I$ $b=-0.415732+0.263693I$	$-0.18558-3.44846I$	0
$u=-0.814721+1.018870I$ $a=-0.531460-0.837492I$ $b=\ 0.015260-1.409170I$	$0.03542-3.21441I$	0
$u=-0.814721-1.018870I$ $a=-0.531460+0.837492I$ $b=\ 0.015260+1.409170I$	$0.03542+3.21441I$	0
$u=\ 0.161018+1.306420I$ $a=\ 0.180923+0.441279I$ $b=-0.605033+0.882738I$	$-6.43143-1.68566I$	0
$u=\ 0.161018-1.306420I$ $a=\ 0.180923-0.441279I$ $b=-0.605033-0.882738I$	$-6.43143+1.68566I$	0
$u=-0.382459+0.566458I$ $a=-0.943960-0.302728I$ $b=-0.417876+0.733678I$	$-1.57334-1.53009I$	0
$u=-0.382459-0.566458I$ $a=-0.943960+0.302728I$ $b=-0.417876-0.733678I$	$-1.57334+1.53009I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.470125+1.238920I$		
$a=$	$0.317987+0.898592I$	$-1.68286+8.35218I$	0
$b=$	$0.03987+1.82267I$		
$u=$	$0.470125-1.238920I$		
$a=$	$0.317987-0.898592I$	$-1.68286-8.35218I$	0
$b=$	$0.03987-1.82267I$		
$u=$	$-0.488091+1.250130I$		
$a=$	$-0.310242+0.967239I$	$-3.8982-14.1640I$	0
$b=$	$-0.04273+1.85787I$		
$u=$	$-0.488091-1.250130I$		
$a=$	$-0.310242-0.967239I$	$-3.8982+14.1640I$	0
$b=$	$-0.04273-1.85787I$		
$u=$	$-0.434696+1.284700I$		
$a=$	$-0.157892+0.815977I$	$-8.04984-5.26008I$	0
$b=$	$0.01363+1.81951I$		
$u=$	$-0.434696-1.284700I$		
$a=$	$-0.157892-0.815977I$	$-8.04984+5.26008I$	0
$b=$	$0.01363-1.81951I$		
$u=$	$0.450723+1.283490I$		
$a=$	$-0.181582+0.687267I$	$-1.78545+1.21839I$	0
$b=$	$0.061831+1.391640I$		
$u=$	$0.450723-1.283490I$		
$a=$	$-0.181582-0.687267I$	$-1.78545-1.21839I$	0
$b=$	$0.061831-1.391640I$		
$u=$	$0.475367+0.398286I$		
$a=$	$1.254560-0.480802I$	$-1.99917-2.12741I$	$-8.00000+2.51382I$
$b=$	$0.577393+0.525369I$		
$u=$	$0.475367-0.398286I$		
$a=$	$1.254560+0.480802I$	$-1.99917+2.12741I$	$-8.00000-2.51382I$
$b=$	$0.577393-0.525369I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.442386+1.308270I$ $a=\ 0.251345+0.780246I$ $b=\ 0.12685+1.45490I$	$-4.24368+4.33829I$	0
$u=-0.442386-1.308270I$ $a=\ 0.251345-0.780246I$ $b=\ 0.12685-1.45490I$	$-4.24368-4.33829I$	0
$u=\ 0.647761+1.237630I$ $a=\ 0.169953+0.856109I$ $b=\ 0.81887+1.69652I$	$3.27782+4.21966I$	0
$u=\ 0.647761-1.237630I$ $a=\ 0.169953-0.856109I$ $b=\ 0.81887-1.69652I$	$3.27782-4.21966I$	0
$u=\ 0.594032+0.001320I$ $a=-0.648130+1.057640I$ $b=\ 0.313222+0.666446I$	$3.35777+0.21005I$	$-1.70819-1.96335I$
$u=\ 0.594032-0.001320I$ $a=-0.648130-1.057640I$ $b=\ 0.313222-0.666446I$	$3.35777-0.21005I$	$-1.70819+1.96335I$
$u=-0.374077+1.357760I$ $a=\ 0.609691-1.213940I$ $b=\ 1.40098-1.66595I$	$-2.23995-9.20664I$	0
$u=-0.374077-1.357760I$ $a=\ 0.609691+1.213940I$ $b=\ 1.40098+1.66595I$	$-2.23995+9.20664I$	0
$u=-0.656233+1.251970I$ $a=-0.211218+0.974269I$ $b=-0.88810+1.80620I$	$4.37338-10.24420I$	0
$u=-0.656233-1.251970I$ $a=-0.211218-0.974269I$ $b=-0.88810-1.80620I$	$4.37338+10.24420I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.64172 + 1.26295I$ $a = 0.133193 + 1.183320I$ $b = 0.85766 + 2.00847I$	$-3.03118 + 11.83030I$	0
$u = 0.64172 - 1.26295I$ $a = 0.133193 - 1.183320I$ $b = 0.85766 - 2.00847I$	$-3.03118 - 11.83030I$	0
$u = -0.50624 + 1.33298I$ $a = 0.062793 + 0.715903I$ $b = -0.22845 + 1.71817I$	$-7.50335 - 5.04059I$	0
$u = -0.50624 - 1.33298I$ $a = 0.062793 - 0.715903I$ $b = -0.22845 - 1.71817I$	$-7.50335 + 5.04059I$	0
$u = 0.520857 + 0.236165I$ $a = 1.60435 + 1.81934I$ $b = 0.227801 + 0.071552I$	$2.03566 - 2.41610I$	$-1.86591 + 1.09875I$
$u = 0.520857 - 0.236165I$ $a = 1.60435 - 1.81934I$ $b = 0.227801 - 0.071552I$	$2.03566 + 2.41610I$	$-1.86591 - 1.09875I$
$u = -0.64901 + 1.27560I$ $a = -0.271825 + 1.199250I$ $b = -0.98087 + 2.00240I$	$3.0608 - 14.6941I$	0
$u = -0.64901 - 1.27560I$ $a = -0.271825 - 1.199250I$ $b = -0.98087 - 2.00240I$	$3.0608 + 14.6941I$	0
$u = 0.544892 + 0.162581I$ $a = 1.42807 - 0.63202I$ $b = 0.679826 + 0.218593I$	$-1.92563 + 3.11240I$	$-9.93844 - 6.49156I$
$u = 0.544892 - 0.162581I$ $a = 1.42807 + 0.63202I$ $b = 0.679826 - 0.218593I$	$-1.92563 - 3.11240I$	$-9.93844 + 6.49156I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.64444 + 1.28179I$ $a = 0.288296 + 1.258350I$ $b = 1.00264 + 2.05279I$	$0.8786 + 20.4203I$	0
$u = 0.64444 - 1.28179I$ $a = 0.288296 - 1.258350I$ $b = 1.00264 - 2.05279I$	$0.8786 - 20.4203I$	0
$u = 0.47267 + 1.35967I$ $a = -0.520671 - 1.113190I$ $b = -1.24876 - 1.57396I$	$-1.27419 + 5.60333I$	0
$u = 0.47267 - 1.35967I$ $a = -0.520671 + 1.113190I$ $b = -1.24876 + 1.57396I$	$-1.27419 - 5.60333I$	0
$u = -0.01229 + 1.45574I$ $a = -0.113439 + 0.362821I$ $b = 0.503699 + 0.685443I$	$-0.82468 + 3.68210I$	0
$u = -0.01229 - 1.45574I$ $a = -0.113439 - 0.362821I$ $b = 0.503699 - 0.685443I$	$-0.82468 - 3.68210I$	0
$u = 1.50110 + 0.00916I$ $a = 0.142621 + 0.318709I$ $b = 0.193413 - 0.394151I$	$5.80454 - 2.48084I$	0
$u = 1.50110 - 0.00916I$ $a = 0.142621 - 0.318709I$ $b = 0.193413 + 0.394151I$	$5.80454 + 2.48084I$	0
$u = 0.10474 + 1.51348I$ $a = 0.069136 + 0.391493I$ $b = -0.598683 + 0.654252I$	$-2.60975 - 9.16870I$	0
$u = 0.10474 - 1.51348I$ $a = 0.069136 - 0.391493I$ $b = -0.598683 - 0.654252I$	$-2.60975 + 9.16870I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.478701+0.026645I$ $a=-1.130160+0.700094I$ $b=-0.632644+0.032512I$	$-1.087000-0.269208I$	$-7.50861-1.22660I$
$u=-0.478701-0.026645I$ $a=-1.130160-0.700094I$ $b=-0.632644-0.032512I$	$-1.087000+0.269208I$	$-7.50861+1.22660I$
$u=-0.474330+0.044991I$ $a=\ \ 0.70887-1.51617I$ $b=-0.483206-0.789765I$	$1.97022-5.09274I$	$-4.00700+4.13201I$
$u=-0.474330-0.044991I$ $a=\ \ 0.70887+1.51617I$ $b=-0.483206+0.789765I$	$1.97022+5.09274I$	$-4.00700-4.13201I$
$u=-0.78245+1.38030I$ $a=\ \ 0.145855-0.721295I$ $b=\ \ 0.722185-1.153840I$	$2.23739-4.72523I$	0
$u=-0.78245-1.38030I$ $a=\ \ 0.145855+0.721295I$ $b=\ \ 0.722185+1.153840I$	$2.23739+4.72523I$	0
$u=\ \ 0.69871+1.43611I$ $a=-0.307780-0.755402I$ $b=-0.92272-1.16743I$	$1.28246+9.82011I$	0
$u=\ \ 0.69871-1.43611I$ $a=-0.307780+0.755402I$ $b=-0.92272+1.16743I$	$1.28246-9.82011I$	0
$u=-1.60498+0.35017I$ $a=-0.245929+0.154231I$ $b=-0.146754-0.476689I$	$5.84641-3.29781I$	0
$u=-1.60498-0.35017I$ $a=-0.245929-0.154231I$ $b=-0.146754+0.476689I$	$5.84641+3.29781I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.341138$		
$a=-1.64479$	-0.864587	-11.3420
$b=-0.425108$		

II. $I_2^u = \langle -1.47\times 10^{22}u^{40} - 9.65\times 10^{22}u^{39} + \cdots + 1.45\times 10^{21}b - 2.20\times 10^{23},\ 4.08\times 10^{20}u^{40} - 2.19\times 10^{23}u^{39} + \cdots + 1.45\times 10^{21}a - 5.58\times 10^{23},\ u^{41} + u^{40} + \cdots + 16u^2 + 1\rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.280700u^{40} + 150.861u^{39} + \cdots - 91.8952u + 384.136 \\ 10.1443u^{40} + 66.4040u^{39} + \cdots - 0.280700u + 151.142 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.719300u^{40} + 151.861u^{39} + \cdots - 91.8952u + 384.136 \\ 11.1443u^{40} + 67.4040u^{39} + \cdots + 0.719300u + 151.142 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -284.587u^{40} - 187.873u^{39} + \cdots - 688.029u + 188.609 \\ -204.233u^{40} - 143.941u^{39} + \cdots - 523.057u + 122.095 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 3.88878u^{40} + 190.990u^{39} + \cdots - 102.320u + 479.018 \\ 14.3137u^{40} + 106.532u^{39} + \cdots - 10.7057u + 246.024 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 92.2701u^{40} + 124.294u^{39} + \cdots + 185.120u + 46.7070 \\ 66.5579u^{40} + 134.994u^{39} + \cdots + 124.515u + 156.462 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -213.271u^{40} - 434.044u^{39} + \cdots - 397.779u - 542.363 \\ -126.187u^{40} - 305.229u^{39} + \cdots - 238.371u - 459.244 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -93.3704u^{40} - 283.715u^{39} + \cdots - 145.530u - 518.477 \\ -2.74709u^{40} - 97.3313u^{39} + \cdots + 5.71575u - 275.659 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -187.050u^{40} - 245.106u^{39} + \cdots - 526.273u - 126.714 \\ -74.8426u^{40} - 103.662u^{39} + \cdots - 248.151u - 97.0573 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{5681773412310883215079 90}{145371175726855375038 1}u^{40} + \frac{4182504647384113149739 23}{145371175726855375038 1}u^{39} + \cdots + \frac{1157014307294773757273725}{145371175726855375038 1}u - \frac{3858239382985148616994 65}{145371175726855375038 1}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{41} - 23u^{40} + \cdots + 138u - 9$
c_2	$u^{41} + 3u^{40} + \cdots + 23u^2 - 3$
c_3	$u^{41} - 7u^{39} + \cdots - u + 1$
c_4	$u^{41} + u^{40} + \cdots + 16u^2 + 1$
c_5	$u^{41} - 3u^{40} + \cdots - 23u^2 + 3$
c_6	$u^{41} + 4u^{40} + \cdots + 4u - 1$
c_7	$u^{41} + u^{40} + \cdots - 7u - 1$
c_8	$u^{41} - 8u^{39} + \cdots + u - 1$
c_9	$u^{41} - u^{40} + \cdots + 7u - 1$
c_{10}	$u^{41} + 19u^{40} + \cdots + 160u + 11$
c_{11}	$u^{41} - u^{40} + \cdots - 16u^2 - 1$
c_{12}	$u^{41} - u^{40} + \cdots - 7u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{41} + 5y^{40} + \cdots - 414y - 81$
c_2, c_5	$y^{41} - 23y^{40} + \cdots + 138y - 9$
c_3	$y^{41} - 14y^{40} + \cdots - 5y - 1$
c_4, c_{11}	$y^{41} + 19y^{40} + \cdots - 32y - 1$
c_6	$y^{41} + 24y^{40} + \cdots - 2y - 1$
c_7, c_{12}	$y^{41} + 37y^{40} + \cdots - 55y - 1$
c_8	$y^{41} - 16y^{40} + \cdots + 31y - 1$
c_9	$y^{41} + 5y^{40} + \cdots - 21y - 1$
c_{10}	$y^{41} + 9y^{40} + \cdots - 118y - 121$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.409777+0.900801I$ $a=-0.544341-1.119450I$ $b=-0.730677-1.094590I$	$-4.03483+1.67732I$	$-15.7065-1.9092I$
$u=-0.409777-0.900801I$ $a=-0.544341+1.119450I$ $b=-0.730677+1.094590I$	$-4.03483-1.67732I$	$-15.7065+1.9092I$
$u=-0.657601+0.825266I$ $a=\ \ 0.601074-0.268176I$ $b=-0.357033+0.531973I$	$3.12416-2.18877I$	$-5.69210+4.74067I$
$u=-0.657601-0.825266I$ $a=\ \ 0.601074+0.268176I$ $b=-0.357033-0.531973I$	$3.12416+2.18877I$	$-5.69210-4.74067I$
$u=\ \ 0.302331+1.034790I$ $a=-0.637238-0.149825I$ $b=\ \ 0.950086-0.176237I$	$0.25466+6.20458I$	$-14.8235-3.5089I$
$u=\ \ 0.302331-1.034790I$ $a=-0.637238+0.149825I$ $b=\ \ 0.950086+0.176237I$	$0.25466-6.20458I$	$-14.8235+3.5089I$
$u=-0.331807+1.036480I$ $a=\ \ 0.21858-1.49669I$ $b=-0.28766-1.69564I$	$-4.71056-4.64876I$	$-15.0367+4.9275I$
$u=-0.331807-1.036480I$ $a=\ \ 0.21858+1.49669I$ $b=-0.28766+1.69564I$	$-4.71056+4.64876I$	$-15.0367-4.9275I$
$u=-0.874408$ $a=-0.824516$ $b=\ \ 0.134886$	-3.51423	-6.86190
$u=\ \ 0.317154+1.082840I$ $a=-0.574788-1.214640I$ $b=\ \ 0.06114-1.52733I$	$-3.95324+1.56546I$	$-8.00000+0.I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.317154 - 1.082840I$ $a = -0.574788 + 1.214640I$ $b = 0.06114 + 1.52733I$	$-3.95324 - 1.56546I$	$-8.00000 + 0.I$
$u = -0.188677 + 0.809103I$ $a = 0.686531 + 0.487499I$ $b = -1.06188 + 1.56291I$	$3.95567 - 1.37596I$	$-0.82626 - 3.55586I$
$u = -0.188677 - 0.809103I$ $a = 0.686531 - 0.487499I$ $b = -1.06188 - 1.56291I$	$3.95567 + 1.37596I$	$-0.82626 + 3.55586I$
$u = 0.113083 + 0.798094I$ $a = -0.047789 + 0.770469I$ $b = 1.18245 + 2.09762I$	$1.57638 - 4.35308I$	$-16.7694 + 3.0661I$
$u = 0.113083 - 0.798094I$ $a = -0.047789 - 0.770469I$ $b = 1.18245 - 2.09762I$	$1.57638 + 4.35308I$	$-16.7694 - 3.0661I$
$u = 0.568179 + 1.064920I$ $a = 0.134359 - 0.780118I$ $b = 0.095548 - 1.119810I$	$-1.70449 + 2.54931I$	0
$u = 0.568179 - 1.064920I$ $a = 0.134359 + 0.780118I$ $b = 0.095548 + 1.119810I$	$-1.70449 - 2.54931I$	0
$u = 0.466980 + 1.200370I$ $a = -0.32410 - 1.49493I$ $b = -1.12190 - 2.07011I$	$-1.81978 + 7.59271I$	0
$u = 0.466980 - 1.200370I$ $a = -0.32410 + 1.49493I$ $b = -1.12190 + 2.07011I$	$-1.81978 - 7.59271I$	0
$u = -0.417071 + 1.236700I$ $a = 0.72424 - 1.41848I$ $b = 1.49790 - 1.90624I$	$-1.99856 - 4.69047I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.417071-1.236700I$ $a=0.72424+1.41848I$ $b=1.49790+1.90624I$	$-1.99856+4.69047I$	0
$u=0.188229+0.655395I$ $a=0.720166-0.397307I$ $b=0.830114+0.485063I$	$-2.35382+0.82742I$	$-15.8192-0.6411I$
$u=0.188229-0.655395I$ $a=0.720166+0.397307I$ $b=0.830114-0.485063I$	$-2.35382-0.82742I$	$-15.8192+0.6411I$
$u=0.022708+0.633531I$ $a=-3.07327+1.11819I$ $b=-1.11126+1.58977I$	$3.36999+8.29380I$	$-6.06255-6.83732I$
$u=0.022708-0.633531I$ $a=-3.07327-1.11819I$ $b=-1.11126-1.58977I$	$3.36999-8.29380I$	$-6.06255+6.83732I$
$u=-0.086889+0.626552I$ $a=2.50876+0.84786I$ $b=0.56171+1.56319I$	$5.04306-3.42296I$	$-3.69821+1.80474I$
$u=-0.086889-0.626552I$ $a=2.50876-0.84786I$ $b=0.56171-1.56319I$	$5.04306+3.42296I$	$-3.69821-1.80474I$
$u=0.542734+0.300118I$ $a=1.81316+1.01197I$ $b=0.441570-0.678988I$	$1.11164-3.56856I$	$-6.21674+4.42673I$
$u=0.542734-0.300118I$ $a=1.81316-1.01197I$ $b=0.441570+0.678988I$	$1.11164+3.56856I$	$-6.21674-4.42673I$
$u=-0.421374+1.348100I$ $a=0.776685-0.793038I$ $b=1.43231-1.20697I$	$-0.34046-9.79113I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.421374-1.348100I$ $a=\ 0.776685+0.793038I$ $b=\ 1.43231+1.20697I$	$-0.34046+9.79113I$	0
$u=-0.49193+1.33074I$ $a=\ 0.012829-0.712139I$ $b=\ 0.20866-1.74798I$	$-7.41515-5.23834I$	0
$u=-0.49193-1.33074I$ $a=\ 0.012829+0.712139I$ $b=\ 0.20866+1.74798I$	$-7.41515+5.23834I$	0
$u=\ 0.50139+1.35961I$ $a=-0.476937-0.723090I$ $b=-1.04603-1.17966I$	$0.64916+4.85096I$	0
$u=\ 0.50139-1.35961I$ $a=-0.476937+0.723090I$ $b=-1.04603+1.17966I$	$0.64916-4.85096I$	0
$u=-0.094409+0.473427I$ $a=-3.73968+0.43889I$ $b=-1.030680+0.342171I$	$1.21017+1.96907I$	$-8.16010+2.84355I$
$u=-0.094409-0.473427I$ $a=-3.73968-0.43889I$ $b=-1.030680-0.342171I$	$1.21017-1.96907I$	$-8.16010-2.84355I$
$u=-1.52636+0.19413I$ $a=-0.099227-0.242342I$ $b=-0.088320+0.472941I$	$5.91001-3.70013I$	0
$u=-1.52636-0.19413I$ $a=-0.099227+0.242342I$ $b=-0.088320-0.472941I$	$5.91001+3.70013I$	0
$u=\ 1.54031+0.22352I$ $a=\ 0.233244+0.131215I$ $b=\ 0.006487-0.492983I$	$5.52803+2.16433I$	0

	Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$1.54031-0.22352I$		
$a=$	$0.233244-0.131215I$	$5.52803-2.16433I$	0
$b=$	$0.006487+0.492983I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{41}-23u^{40}+\cdots+138u-9)(u^{171}+78u^{170}+\cdots+2521u+49)$
c_2	$(u^{41}+3u^{40}+\cdots+23u^2-3)(u^{171}+4u^{170}+\cdots+111u+7)$
c_3	$(u^{41}-7u^{39}+\cdots-u+1)$ $\cdot(u^{171}-u^{170}+\cdots-404430848u+29671424)$
c_4	$(u^{41}+u^{40}+\cdots+16u^2+1)(u^{171}-2u^{170}+\cdots+4671u+9859)$
c_5	$(u^{41}-3u^{40}+\cdots-23u^2+3)(u^{171}+4u^{170}+\cdots+111u+7)$
c_6	$(u^{41}+4u^{40}+\cdots+4u-1)(u^{171}-3u^{170}+\cdots+37835u+2123)$
c_7	$(u^{41}+u^{40}+\cdots-7u-1)(u^{171}+2u^{170}+\cdots-528354u+43591)$
c_8	$(u^{41}-8u^{39}+\cdots+u-1)(u^{171}+5u^{170}+\cdots+6.11151\times10^7u+5504449)$
c_9	$(u^{41}-u^{40}+\cdots+7u-1)$ $\cdot(u^{171}+8u^{170}+\cdots-25208926u+28448137)$
c_{10}	$(u^{41}+19u^{40}+\cdots+160u+11)$ $\cdot(u^{171}+8u^{170}+\cdots+208397u+48167)$
c_{11}	$(u^{41}-u^{40}+\cdots-16u^2-1)(u^{171}-2u^{170}+\cdots+4671u+9859)$
c_{12}	$(u^{41}-u^{40}+\cdots-7u+1)(u^{171}+2u^{170}+\cdots-528354u+43591)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{41}+5y^{40}+\cdots-414y-81)$ $\cdot(y^{171}+46y^{170}+\cdots+1499345y-2401)$
c_2, c_5	$(y^{41}-23y^{40}+\cdots+138y-9)(y^{171}-78y^{170}+\cdots+2521y-49)$
c_3	$(y^{41}-14y^{40}+\cdots-5y-1)$ $\cdot(y^{171}+15y^{170}+\cdots-5219403641651200y-880393402187776)$
c_4, c_{11}	$(y^{41}+19y^{40}+\cdots-32y-1)$ $\cdot(y^{171}+92y^{170}+\cdots-778002993y-97199881)$
c_6	$(y^{41}+24y^{40}+\cdots-2y-1)$ $\cdot(y^{171}+41y^{170}+\cdots+1410817697y-4507129)$
c_7, c_{12}	$(y^{41}+37y^{40}+\cdots-55y-1)$ $\cdot(y^{171}+126y^{170}+\cdots-157098337588y-1900175281)$
c_8	$(y^{41}-16y^{40}+\cdots+31y-1)$ $\cdot(y^{171}-47y^{170}+\cdots+638582748630030y-30298958793601)$
c_9	$(y^{41}+5y^{40}+\cdots-21y-1)$ $\cdot(y^{171}+46y^{170}+\cdots-25343801026808550y-809296498770769)$
c_{10}	$(y^{41}+9y^{40}+\cdots-118y-121)$ $\cdot(y^{171}-10y^{170}+\cdots+163308109881y-2320059889)$