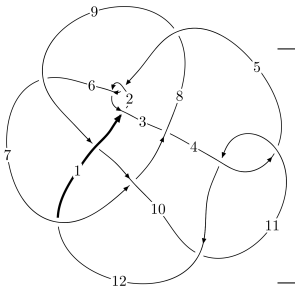
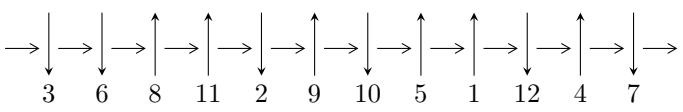
$12a_{0316}$ $(K12a_{0316})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 6.27132 \times 10^{469} u^{176} + 1.45967 \times 10^{471} u^{175} + \cdots + 6.67248 \times 10^{470} b + 1.46517 \times 10^{471}, \\ & 4.71016 \times 10^{471} u^{176} + 1.68292 \times 10^{472} u^{175} + \cdots + 6.67248 \times 10^{470} a + 1.35006 \times 10^{472}, \\ & u^{177} + 4u^{176} + \cdots + 10u + 1 \rangle \\ I_2^u = \langle & 3206229u^{36} - 851287u^{35} + \cdots + 53147b - 2921496, \\ & 3206229u^{36} - 851287u^{35} + \cdots + 53147a - 3134084,\ u^{37} + u^{36} + \cdots + 2u - 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 214 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. $\boldsymbol{I_1^u = \langle 6.27 \times 10^{469} u^{176} + 1.46 \times 10^{471} u^{175} + \cdots + 6.67 \times 10^{470} b + 1.47 \times 10^{471},\ 4.71 \times 10^{471} u^{176} + 1.68 \times 10^{472} u^{175} + \cdots + 6.67 \times 10^{470} a + 1.35 \times 10^{472},\ u^{177} + 4u^{176} + \cdots + 10u + 1 \rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -7.05907u^{176} - 25.2217u^{175} + \cdots - 135.362u - 20.2332 \\ -0.0939879u^{176} - 2.18760u^{175} + \cdots - 25.6168u - 2.19583 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -1.26084u^{176} - 3.18185u^{175} + \cdots + 0.522136u + 4.94160 \\ -1.02841u^{176} - 2.49536u^{175} + \cdots + 7.10073u + 1.76271 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^2 + 1 \\ -u^4 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -11.7961u^{176} - 40.9296u^{175} + \cdots - 191.660u - 25.4602 \\ -4.25227u^{176} - 15.3984u^{175} + \cdots - 63.4411u - 6.27080 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -10.8853u^{176} - 37.9312u^{175} + \cdots - 176.659u - 25.0594 \\ -3.92024u^{176} - 14.8971u^{175} + \cdots - 66.9138u - 7.02204 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 5.45380u^{176} + 22.5815u^{175} + \cdots + 155.803u + 18.4036 \\ -3.53508u^{176} - 8.38983u^{175} + \cdots - 20.8326u - 2.85652 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -2.20492u^{176} - 9.94931u^{175} + \cdots - 123.233u - 13.6295 \\ 3.43657u^{176} + 12.3261u^{175} + \cdots + 48.1433u + 6.89118 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -14.5338u^{176} - 46.8491u^{175} + \cdots - 189.484u - 18.3827 \\ -7.41726u^{176} - 23.1558u^{175} + \cdots - 69.7149u - 6.96208 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -18.8317u^{176} - 63.9674u^{175} + \cdots - 313.568u - 37.3249$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{177} + 80u^{176} + \cdots + 34u + 1$
c_2, c_5	$u^{177} + 4u^{176} + \cdots + 10u + 1$
c_3	$u^{177} + u^{176} + \cdots + 220952u - 6793$
c_4, c_{11}	$u^{177} + 36u^{175} + \cdots - 195u + 59$
c_6	$u^{177} - 17u^{176} + \cdots - 962894u + 202189$
c_7	$u^{177} + 8u^{176} + \cdots + 79u - 1$
c_8	$u^{177} + u^{176} + \cdots - 377547059u - 63518701$
c_9	$u^{177} + 18u^{176} + \cdots - 5792u - 523$
c_{10}	$u^{177} + 72u^{176} + \cdots - 103103u - 3481$
c_{12}	$u^{177} + 5u^{176} + \cdots + 895865u - 154903$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{177} + 44y^{176} + \cdots - 2218y - 1$
c_2, c_5	$y^{177} - 80y^{176} + \cdots + 34y - 1$
c_3	$y^{177} - 17y^{176} + \cdots + 37538868580y - 46144849$
c_4, c_{11}	$y^{177} + 72y^{176} + \cdots - 103103y - 3481$
c_6	$y^{177} - 27y^{176} + \cdots - 44453979886y - 40880391721$
c_7	$y^{177} + 12y^{176} + \cdots + 549y - 1$
c_8	$y^{177} - 37y^{176} + \cdots + 270860312130815791y - 4034625376727401$
c_9	$y^{177} + 8y^{176} + \cdots - 28982616y - 273529$
c_{10}	$y^{177} + 72y^{176} + \cdots - 1149837415y - 12117361$
c_{12}	$y^{177} + 31y^{176} + \cdots - 1661817074137y - 23994939409$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.864110 + 0.503380I$ $a = 1.64210 - 0.28849I$ $b = 0.453580 + 0.130110I$	$3.02236 + 0.80080I$	0
$u = 0.864110 - 0.503380I$ $a = 1.64210 + 0.28849I$ $b = 0.453580 - 0.130110I$	$3.02236 - 0.80080I$	0
$u = 0.854454 + 0.530174I$ $a = 0.581132 - 1.206900I$ $b = 1.18512 - 2.00320I$	$3.02605 - 4.97258I$	0
$u = 0.854454 - 0.530174I$ $a = 0.581132 + 1.206900I$ $b = 1.18512 + 2.00320I$	$3.02605 + 4.97258I$	0
$u = 0.628733 + 0.785612I$ $a = -0.722882 + 0.572565I$ $b = 0.538006 - 0.109119I$	$6.22275 + 0.33470I$	0
$u = 0.628733 - 0.785612I$ $a = -0.722882 - 0.572565I$ $b = 0.538006 + 0.109119I$	$6.22275 - 0.33470I$	0
$u = -0.995131 + 0.150101I$ $a = -0.730128 + 0.587590I$ $b = -1.69476 + 1.26240I$	$0.137829 + 1.011590I$	0
$u = -0.995131 - 0.150101I$ $a = -0.730128 - 0.587590I$ $b = -1.69476 - 1.26240I$	$0.137829 - 1.011590I$	0
$u = 0.429828 + 0.910229I$ $a = -1.26729 + 0.89068I$ $b = -0.0504466 + 0.0116262I$	$5.31765 + 9.00835I$	0
$u = 0.429828 - 0.910229I$ $a = -1.26729 - 0.89068I$ $b = -0.0504466 - 0.0116262I$	$5.31765 - 9.00835I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.431978+0.909727I$ $a=\ \ 1.099430+0.678193I$ $b=-0.0703223+0.1208490I$	$-1.84822-7.07977I$	0
$u=-0.431978-0.909727I$ $a=\ \ 1.099430-0.678193I$ $b=-0.0703223-0.1208490I$	$-1.84822+7.07977I$	0
$u=-0.430940+0.912090I$ $a=\ \ 1.35273+0.84882I$ $b=\ \ 0.0209828-0.0429838I$	$3.6105-15.0225I$	0
$u=-0.430940-0.912090I$ $a=\ \ 1.35273-0.84882I$ $b=\ \ 0.0209828+0.0429838I$	$3.6105+15.0225I$	0
$u=-0.689258+0.741416I$ $a=-1.51421-0.54650I$ $b=-0.990121-0.092074I$	$4.35698+0.21526I$	0
$u=-0.689258-0.741416I$ $a=-1.51421+0.54650I$ $b=-0.990121+0.092074I$	$4.35698-0.21526I$	0
$u=-0.983063+0.244776I$ $a=\ \ 0.086827-0.874000I$ $b=-0.92991-1.40928I$	$-3.69375+1.07233I$	0
$u=-0.983063-0.244776I$ $a=\ \ 0.086827+0.874000I$ $b=-0.92991+1.40928I$	$-3.69375-1.07233I$	0
$u=\ \ 0.556234+0.847392I$ $a=\ \ 1.232020-0.344639I$ $b=\ \ 0.306913+0.299878I$	$2.34667+1.51020I$	0
$u=\ \ 0.556234-0.847392I$ $a=\ \ 1.232020+0.344639I$ $b=\ \ 0.306913-0.299878I$	$2.34667-1.51020I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.814374+0.549309I$ $a=-0.779171-0.971826I$ $b=-1.14533-1.70016I$	$3.39876-0.49100I$	0
$u=-0.814374-0.549309I$ $a=-0.779171+0.971826I$ $b=-1.14533+1.70016I$	$3.39876+0.49100I$	0
$u=-0.880785+0.526592I$ $a=-1.42262-0.63982I$ $b=-0.325054-0.362166I$	$3.20866+4.81840I$	0
$u=-0.880785-0.526592I$ $a=-1.42262+0.63982I$ $b=-0.325054+0.362166I$	$3.20866-4.81840I$	0
$u=0.673023+0.777597I$ $a=1.54096-0.46393I$ $b=0.891807+0.136620I$	$4.16997+4.65462I$	0
$u=0.673023-0.777597I$ $a=1.54096+0.46393I$ $b=0.891807-0.136620I$	$4.16997-4.65462I$	0
$u=1.016800+0.178760I$ $a=0.839498+0.723029I$ $b=1.74110+1.69079I$	$-0.10196+3.78125I$	0
$u=1.016800-0.178760I$ $a=0.839498-0.723029I$ $b=1.74110-1.69079I$	$-0.10196-3.78125I$	0
$u=0.413682+0.948840I$ $a=-0.745949+0.906108I$ $b=-0.053103+0.298477I$	$4.35149+3.60655I$	0
$u=0.413682-0.948840I$ $a=-0.745949-0.906108I$ $b=-0.053103-0.298477I$	$4.35149-3.60655I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.993594 + 0.291384I$ $a = 0.844216 + 0.946999I$ $b = 0.93027 + 2.29117I$	$-1.66504 + 0.52353I$	0
$u = 0.993594 - 0.291384I$ $a = 0.844216 - 0.946999I$ $b = 0.93027 - 2.29117I$	$-1.66504 - 0.52353I$	0
$u = 0.895649 + 0.357166I$ $a = 1.025610 + 0.918358I$ $b = 0.45506 + 1.74939I$	$-1.23431 + 0.87708I$	0
$u = 0.895649 - 0.357166I$ $a = 1.025610 - 0.918358I$ $b = 0.45506 - 1.74939I$	$-1.23431 - 0.87708I$	0
$u = -0.605031 + 0.748752I$ $a = 0.843894 + 0.498704I$ $b = -0.709249 - 0.239796I$	$4.30109 - 6.39022I$	0
$u = -0.605031 - 0.748752I$ $a = 0.843894 - 0.498704I$ $b = -0.709249 + 0.239796I$	$4.30109 + 6.39022I$	0
$u = 0.966875 + 0.380234I$ $a = -0.52633 + 1.66575I$ $b = 0.39230 + 2.53238I$	$-2.02402 + 4.85256I$	0
$u = 0.966875 - 0.380234I$ $a = -0.52633 - 1.66575I$ $b = 0.39230 - 2.53238I$	$-2.02402 - 4.85256I$	0
$u = -0.969471 + 0.379442I$ $a = 0.287010 + 1.361120I$ $b = -0.58379 + 2.08508I$	$-0.854958 + 0.471035I$	0
$u = -0.969471 - 0.379442I$ $a = 0.287010 - 1.361120I$ $b = -0.58379 - 2.08508I$	$-0.854958 - 0.471035I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.334151+0.990251I$ $a=-0.463534-0.392409I$ $b=-0.004647+0.230446I$	$-0.814141+0.510005I$	0
$u=-0.334151-0.990251I$ $a=-0.463534+0.392409I$ $b=-0.004647-0.230446I$	$-0.814141-0.510005I$	0
$u=\ \ 0.981019+0.368545I$ $a=-1.02461+0.98094I$ $b=-0.46481+1.88356I$	$-6.14172-1.19459I$	0
$u=\ \ 0.981019-0.368545I$ $a=-1.02461-0.98094I$ $b=-0.46481-1.88356I$	$-6.14172+1.19459I$	0
$u=-0.954229+0.434373I$ $a=-0.738335+0.615680I$ $b=\ \ 0.40593+2.03400I$	$-4.50486+1.86213I$	0
$u=-0.954229-0.434373I$ $a=-0.738335-0.615680I$ $b=\ \ 0.40593-2.03400I$	$-4.50486-1.86213I$	0
$u=\ \ 0.482512+0.810071I$ $a=\ \ 1.120650-0.605325I$ $b=\ \ 0.180308+0.169055I$	$2.43714+1.63530I$	0
$u=\ \ 0.482512-0.810071I$ $a=\ \ 1.120650+0.605325I$ $b=\ \ 0.180308-0.169055I$	$2.43714-1.63530I$	0
$u=\ \ 0.968611+0.427868I$ $a=-0.466538-0.976942I$ $b=\ \ 0.23731-1.57700I$	$-1.71516-3.91586I$	0
$u=\ \ 0.968611-0.427868I$ $a=-0.466538+0.976942I$ $b=\ \ 0.23731+1.57700I$	$-1.71516+3.91586I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.007150+0.358789I$ $a=-0.779760+0.932037I$ $b=-0.41402+2.57889I$	$-2.82839-4.64321I$	0
$u=-1.007150-0.358789I$ $a=-0.779760-0.932037I$ $b=-0.41402-2.57889I$	$-2.82839+4.64321I$	0
$u=0.953295+0.486416I$ $a=0.397010-0.541125I$ $b=-1.47341-1.50063I$	$-4.20211-3.46738I$	0
$u=0.953295-0.486416I$ $a=0.397010+0.541125I$ $b=-1.47341+1.50063I$	$-4.20211+3.46738I$	0
$u=-0.533783+0.934684I$ $a=-0.976099-0.139686I$ $b=-0.106331+0.396116I$	$1.03900-5.79820I$	0
$u=-0.533783-0.934684I$ $a=-0.976099+0.139686I$ $b=-0.106331-0.396116I$	$1.03900+5.79820I$	0
$u=-0.981695+0.447205I$ $a=0.364521+0.474478I$ $b=-0.228931+1.035680I$	$-1.59398+1.86715I$	0
$u=-0.981695-0.447205I$ $a=0.364521-0.474478I$ $b=-0.228931-1.035680I$	$-1.59398-1.86715I$	0
$u=-0.686189+0.838109I$ $a=0.422512+0.531598I$ $b=-0.115585+0.289545I$	$-0.33435+2.65275I$	0
$u=-0.686189-0.838109I$ $a=0.422512-0.531598I$ $b=-0.115585-0.289545I$	$-0.33435-2.65275I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.641662 + 0.873189I$ $a = -0.467333 + 0.778610I$ $b = 0.0584398 - 0.0639245I$	$6.61970 - 4.57530I$	0
$u = 0.641662 - 0.873189I$ $a = -0.467333 - 0.778610I$ $b = 0.0584398 + 0.0639245I$	$6.61970 + 4.57530I$	0
$u = 0.976335 + 0.497172I$ $a = -1.08695 - 1.54329I$ $b = -0.69036 - 2.42165I$	$-0.15175 - 5.18017I$	0
$u = 0.976335 - 0.497172I$ $a = -1.08695 + 1.54329I$ $b = -0.69036 + 2.42165I$	$-0.15175 + 5.18017I$	0
$u = -0.643816 + 0.892856I$ $a = 0.394328 + 0.823883I$ $b = 0.0398039 - 0.0652166I$	$4.88923 + 10.48330I$	0
$u = -0.643816 - 0.892856I$ $a = 0.394328 - 0.823883I$ $b = 0.0398039 + 0.0652166I$	$4.88923 - 10.48330I$	0
$u = -0.984038 + 0.507492I$ $a = 1.39816 - 1.54570I$ $b = 1.12239 - 2.46986I$	$-1.20216 + 10.51620I$	0
$u = -0.984038 - 0.507492I$ $a = 1.39816 + 1.54570I$ $b = 1.12239 + 2.46986I$	$-1.20216 - 10.51620I$	0
$u = 1.074180 + 0.314145I$ $a = -1.187290 + 0.107309I$ $b = -1.30256 + 0.80314I$	$-1.71410 - 6.86279I$	0
$u = 1.074180 - 0.314145I$ $a = -1.187290 - 0.107309I$ $b = -1.30256 - 0.80314I$	$-1.71410 + 6.86279I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.986129+0.529695I$ $a=-0.446989-0.969513I$ $b=\ 0.45388-2.03741I$	$0.06124+6.22009I$	0
$u=-0.986129-0.529695I$ $a=-0.446989+0.969513I$ $b=\ 0.45388+2.03741I$	$0.06124-6.22009I$	0
$u=\ 0.766407+0.418178I$ $a=\ 0.318503-0.142059I$ $b=-0.02476-2.36651I$	$-3.49282-0.33241I$	0
$u=\ 0.766407-0.418178I$ $a=\ 0.318503+0.142059I$ $b=-0.02476+2.36651I$	$-3.49282+0.33241I$	0
$u=\ 1.013210+0.498461I$ $a=\ 0.181595-0.942807I$ $b=-0.88594-2.57967I$	$-1.94333-10.80760I$	0
$u=\ 1.013210-0.498461I$ $a=\ 0.181595+0.942807I$ $b=-0.88594+2.57967I$	$-1.94333+10.80760I$	0
$u=-0.203869+0.844369I$ $a=\ 0.240509+1.358190I$ $b=\ 0.129274+0.558191I$	$2.35834+3.63220I$	0
$u=-0.203869-0.844369I$ $a=\ 0.240509-1.358190I$ $b=\ 0.129274-0.558191I$	$2.35834-3.63220I$	0
$u=-1.020510+0.488503I$ $a=\ 1.28197-0.78165I$ $b=\ 1.10918-1.32805I$	$-5.32571+4.91021I$	0
$u=-1.020510-0.488503I$ $a=\ 1.28197+0.78165I$ $b=\ 1.10918+1.32805I$	$-5.32571-4.91021I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.454584 + 0.720457I$ $a = 1.76325 - 0.93699I$ $b = 0.0092184 + 0.1017300I$	$4.72116 + 0.61300I$	0
$u = 0.454584 - 0.720457I$ $a = 1.76325 + 0.93699I$ $b = 0.0092184 - 0.1017300I$	$4.72116 - 0.61300I$	0
$u = -1.107280 + 0.360761I$ $a = -0.046154 - 0.532157I$ $b = -1.35787 - 0.75946I$	$-2.80776 + 5.90177I$	0
$u = -1.107280 - 0.360761I$ $a = -0.046154 + 0.532157I$ $b = -1.35787 + 0.75946I$	$-2.80776 - 5.90177I$	0
$u = -0.443082 + 0.704654I$ $a = -1.89935 - 0.78762I$ $b = 0.0903060 + 0.0571122I$	$4.33274 - 5.54339I$	0
$u = -0.443082 - 0.704654I$ $a = -1.89935 + 0.78762I$ $b = 0.0903060 - 0.0571122I$	$4.33274 + 5.54339I$	0
$u = -0.972572 + 0.650132I$ $a = -0.57392 - 1.55176I$ $b = -0.79279 - 1.91590I$	$3.48309 + 5.08902I$	0
$u = -0.972572 - 0.650132I$ $a = -0.57392 + 1.55176I$ $b = -0.79279 + 1.91590I$	$3.48309 - 5.08902I$	0
$u = 1.071370 + 0.472682I$ $a = -0.125573 + 0.151807I$ $b = 0.754288 + 0.695071I$	$-2.42037 - 5.73814I$	0
$u = 1.071370 - 0.472682I$ $a = -0.125573 - 0.151807I$ $b = 0.754288 - 0.695071I$	$-2.42037 + 5.73814I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.727816+0.388140I$		
$a=$	$1.46503+1.79064I$	$0.80530+1.36238I$	0
$b=$	$0.71399+1.66257I$		
$u=$	$0.727816-0.388140I$		
$a=$	$1.46503-1.79064I$	$0.80530-1.36238I$	0
$b=$	$0.71399-1.66257I$		
$u=$	$-1.034940+0.566622I$		
$a=$	$-0.385371-1.274380I$	$0.18035+6.67560I$	0
$b=$	$-0.26876-2.61647I$		
$u=$	$-1.034940-0.566622I$		
$a=$	$-0.385371+1.274380I$	$0.18035-6.67560I$	0
$b=$	$-0.26876+2.61647I$		
$u=$	$1.110490+0.400960I$		
$a=$	$0.047678-0.338435I$	$-2.57340-1.75170I$	0
$b=$	$1.338290-0.291718I$		
$u=$	$1.110490-0.400960I$		
$a=$	$0.047678+0.338435I$	$-2.57340+1.75170I$	0
$b=$	$1.338290+0.291718I$		
$u=$	$-0.539683+0.613755I$		
$a=$	$-1.52577-0.32011I$	$1.66757-1.98030I$	0
$b=$	$-0.093355-0.463207I$		
$u=$	$-0.539683-0.613755I$		
$a=$	$-1.52577+0.32011I$	$1.66757+1.98030I$	0
$b=$	$-0.093355+0.463207I$		
$u=$	$-0.962996+0.686956I$		
$a=$	$0.305789+0.479406I$	$-1.20390+2.99860I$	0
$b=$	$0.09079+1.45512I$		
$u=$	$-0.962996-0.686956I$		
$a=$	$0.305789-0.479406I$	$-1.20390-2.99860I$	0
$b=$	$0.09079-1.45512I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.991259 + 0.667775I$ $a = 0.44316 - 1.57914I$ $b = 0.84090 - 2.04373I$	$3.18592 - 10.11620I$	0
$u = 0.991259 - 0.667775I$ $a = 0.44316 + 1.57914I$ $b = 0.84090 + 2.04373I$	$3.18592 + 10.11620I$	0
$u = 1.197360 + 0.034337I$ $a = -0.093939 - 0.740294I$ $b = 0.29093 - 1.49255I$	$-5.70441 - 3.92320I$	0
$u = 1.197360 - 0.034337I$ $a = -0.093939 + 0.740294I$ $b = 0.29093 + 1.49255I$	$-5.70441 + 3.92320I$	0
$u = 0.431035 + 0.673409I$ $a = 0.89934 - 1.58988I$ $b = 0.0987438 - 0.0201630I$	$4.73101 + 1.60483I$	0
$u = 0.431035 - 0.673409I$ $a = 0.89934 + 1.58988I$ $b = 0.0987438 + 0.0201630I$	$4.73101 - 1.60483I$	0
$u = -1.016480 + 0.639805I$ $a = 0.261850 + 0.617497I$ $b = 0.96848 + 2.09567I$	$3.05948 + 11.67370I$	0
$u = -1.016480 - 0.639805I$ $a = 0.261850 - 0.617497I$ $b = 0.96848 - 2.09567I$	$3.05948 - 11.67370I$	0
$u = 1.009950 + 0.661821I$ $a = -0.304566 + 0.574109I$ $b = -0.88678 + 1.82908I$	$5.06254 - 5.78643I$	0
$u = 1.009950 - 0.661821I$ $a = -0.304566 - 0.574109I$ $b = -0.88678 - 1.82908I$	$5.06254 + 5.78643I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.207770+0.111088I$ $a=-0.090639+0.505906I$ $b=-0.501734+0.876122I$	$-3.11096+0.52478I$	0
$u=-1.207770-0.111088I$ $a=-0.090639-0.505906I$ $b=-0.501734-0.876122I$	$-3.11096-0.52478I$	0
$u=-0.677011+0.401193I$ $a=-1.33922+2.14785I$ $b=-0.58887+1.74981I$	$-0.12774-6.56719I$	0
$u=-0.677011-0.401193I$ $a=-1.33922-2.14785I$ $b=-0.58887-1.74981I$	$-0.12774+6.56719I$	0
$u=-1.150310+0.396663I$ $a=\ \ 1.029900+0.068782I$ $b=\ \ 1.172760+0.368957I$	$-1.008840+0.956640I$	0
$u=-1.150310-0.396663I$ $a=\ \ 1.029900-0.068782I$ $b=\ \ 1.172760-0.368957I$	$-1.008840-0.956640I$	0
$u=-1.109510+0.509073I$ $a=-1.019910-0.403265I$ $b=-1.93314-0.84218I$	$2.34998+0.86622I$	0
$u=-1.109510-0.509073I$ $a=-1.019910+0.403265I$ $b=-1.93314+0.84218I$	$2.34998-0.86622I$	0
$u=-1.073630+0.583236I$ $a=-0.48076-1.47320I$ $b=-1.05647-3.04806I$	$2.48677+10.50110I$	0
$u=-1.073630-0.583236I$ $a=-0.48076+1.47320I$ $b=-1.05647+3.04806I$	$2.48677-10.50110I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.073520 + 0.590068I$ $a = 0.57156 - 1.43360I$ $b = 1.27331 - 2.83184I$	$2.89891 - 5.63480I$	0
$u = 1.073520 - 0.590068I$ $a = 0.57156 + 1.43360I$ $b = 1.27331 + 2.83184I$	$2.89891 + 5.63480I$	0
$u = 0.024001 + 0.773556I$ $a = -0.066380 - 0.835843I$ $b = 0.053002 + 0.763647I$	$0.75664 - 2.18053I$	0
$u = 0.024001 - 0.773556I$ $a = -0.066380 + 0.835843I$ $b = 0.053002 - 0.763647I$	$0.75664 + 2.18053I$	0
$u = 1.101540 + 0.546410I$ $a = 0.948856 - 0.721075I$ $b = 1.84526 - 1.34491I$	$2.72588 - 6.34808I$	0
$u = 1.101540 - 0.546410I$ $a = 0.948856 + 0.721075I$ $b = 1.84526 + 1.34491I$	$2.72588 + 6.34808I$	0
$u = 1.005390 + 0.736212I$ $a = -0.387763 + 0.458302I$ $b = -0.885025 + 1.008260I$	$5.51961 - 1.34491I$	0
$u = 1.005390 - 0.736212I$ $a = -0.387763 - 0.458302I$ $b = -0.885025 - 1.008260I$	$5.51961 + 1.34491I$	0
$u = -0.424100 + 0.619781I$ $a = -0.64402 - 1.80029I$ $b = -0.0115646 - 0.1115990I$	$4.41349 + 3.59625I$	0
$u = -0.424100 - 0.619781I$ $a = -0.64402 + 1.80029I$ $b = -0.0115646 + 0.1115990I$	$4.41349 - 3.59625I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.074910 + 0.639175I$ $a = 0.341936 - 1.209870I$ $b = 0.83361 - 2.09047I$	$0.67305 - 7.06965I$	0
$u = 1.074910 - 0.639175I$ $a = 0.341936 + 1.209870I$ $b = 0.83361 + 2.09047I$	$0.67305 + 7.06965I$	0
$u = -0.605691 + 0.429434I$ $a = -1.013900 + 0.183837I$ $b = 0.268895 - 1.187210I$	$1.24190 - 2.04817I$	0
$u = -0.605691 - 0.429434I$ $a = -1.013900 - 0.183837I$ $b = 0.268895 + 1.187210I$	$1.24190 + 2.04817I$	0
$u = -0.420295 + 0.607847I$ $a = 0.347418 + 0.023155I$ $b = -0.288468 + 0.446331I$	$-0.33857 + 2.05259I$	0
$u = -0.420295 - 0.607847I$ $a = 0.347418 - 0.023155I$ $b = -0.288468 - 0.446331I$	$-0.33857 - 2.05259I$	0
$u = -1.011310 + 0.768024I$ $a = 0.400895 + 0.407280I$ $b = 0.910707 + 0.754369I$	$3.78542 - 4.41512I$	0
$u = -1.011310 - 0.768024I$ $a = 0.400895 - 0.407280I$ $b = 0.910707 - 0.754369I$	$3.78542 + 4.41512I$	0
$u = 1.096560 + 0.658026I$ $a = 0.218148 - 1.118640I$ $b = 0.72364 - 1.97180I$	$0.66481 - 7.12625I$	0
$u = 1.096560 - 0.658026I$ $a = 0.218148 + 1.118640I$ $b = 0.72364 + 1.97180I$	$0.66481 + 7.12625I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.284110 + 0.075213I$ $a = -0.738730 - 0.622086I$ $b = -1.53908 - 1.23636I$	$-2.54229 + 12.16080I$	0
$u = 1.284110 - 0.075213I$ $a = -0.738730 + 0.622086I$ $b = -1.53908 + 1.23636I$	$-2.54229 - 12.16080I$	0
$u = -1.286570 + 0.081808I$ $a = 0.728086 - 0.552802I$ $b = 1.46142 - 1.03823I$	$-0.81096 - 6.12839I$	0
$u = -1.286570 - 0.081808I$ $a = 0.728086 + 0.552802I$ $b = 1.46142 + 1.03823I$	$-0.81096 + 6.12839I$	0
$u = 1.297720 + 0.059431I$ $a = -0.493257 - 0.564008I$ $b = -0.81964 - 1.16945I$	$-8.06045 + 4.22049I$	0
$u = 1.297720 - 0.059431I$ $a = -0.493257 + 0.564008I$ $b = -0.81964 + 1.16945I$	$-8.06045 - 4.22049I$	0
$u = 0.151448 + 0.677292I$ $a = -0.239174 - 0.493385I$ $b = 0.217102 + 0.555784I$	$0.11157 + 1.61027I$	0
$u = 0.151448 - 0.677292I$ $a = -0.239174 + 0.493385I$ $b = 0.217102 - 0.555784I$	$0.11157 - 1.61027I$	0
$u = 0.634491 + 0.258463I$ $a = 0.490582 + 0.774572I$ $b = -0.94373 - 1.29655I$	$-0.49221 + 7.04072I$	0
$u = 0.634491 - 0.258463I$ $a = 0.490582 - 0.774572I$ $b = -0.94373 + 1.29655I$	$-0.49221 - 7.04072I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.141400+0.654698I$ $a=\ \ 0.447744+1.042120I$ $b=\ \ 0.75561+2.17552I$	$-4.00208+12.81910I$	0
$u=-1.141400-0.654698I$ $a=\ \ 0.447744-1.042120I$ $b=\ \ 0.75561-2.17552I$	$-4.00208-12.81910I$	0
$u=-1.121680+0.690184I$ $a=\ \ 0.001403-1.019600I$ $b=-0.44730-1.90854I$	$-0.80122+11.75970I$	0
$u=-1.121680-0.690184I$ $a=\ \ 0.001403+1.019600I$ $b=-0.44730+1.90854I$	$-0.80122-11.75970I$	0
$u=\ \ 1.144430+0.654477I$ $a=-0.578454+1.185600I$ $b=-1.13850+2.31125I$	$3.1470-14.7517I$	0
$u=\ \ 1.144430-0.654477I$ $a=-0.578454-1.185600I$ $b=-1.13850-2.31125I$	$3.1470+14.7517I$	0
$u=-1.144850+0.654743I$ $a=\ \ 0.536120+1.244750I$ $b=\ \ 1.12267+2.46028I$	$1.4395+20.7720I$	0
$u=-1.144850-0.654743I$ $a=\ \ 0.536120-1.244750I$ $b=\ \ 1.12267-2.46028I$	$1.4395-20.7720I$	0
$u=-1.079060+0.765489I$ $a=\ \ 0.424703+0.553267I$ $b=\ \ 0.217950+1.188930I$	$-1.20942+3.19236I$	0
$u=-1.079060-0.765489I$ $a=\ \ 0.424703-0.553267I$ $b=\ \ 0.217950-1.188930I$	$-1.20942-3.19236I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.152480 + 0.666884I$ $a = -0.610038 + 0.838081I$ $b = -0.88187 + 1.63953I$	$2.11726 - 9.47807I$	0
$u = 1.152480 - 0.666884I$ $a = -0.610038 - 0.838081I$ $b = -0.88187 - 1.63953I$	$2.11726 + 9.47807I$	0
$u = -1.180110 + 0.641705I$ $a = -0.191105 - 0.663740I$ $b = -0.61236 - 1.34118I$	$-3.39163 + 5.32315I$	0
$u = -1.180110 - 0.641705I$ $a = -0.191105 + 0.663740I$ $b = -0.61236 + 1.34118I$	$-3.39163 - 5.32315I$	0
$u = -0.648881 + 0.036092I$ $a = 0.11541 - 1.59230I$ $b = -0.84150 - 1.29069I$	$-3.52867 + 1.18563I$	$-6.52505 - 2.33894I$
$u = -0.648881 - 0.036092I$ $a = 0.11541 + 1.59230I$ $b = -0.84150 + 1.29069I$	$-3.52867 - 1.18563I$	$-6.52505 + 2.33894I$
$u = -1.47300$ $a = 0.469279$ $b = 0.634655$	-2.50835	0
$u = 1.47889 + 0.22589I$ $a = 0.0556634 + 0.0919355I$ $b = 0.287495 + 0.108538I$	$-7.07013 - 4.74190I$	0
$u = 1.47889 - 0.22589I$ $a = 0.0556634 - 0.0919355I$ $b = 0.287495 - 0.108538I$	$-7.07013 + 4.74190I$	0
$u = -0.071219 + 0.453256I$ $a = 0.721477 - 0.736546I$ $b = 0.251352 + 0.377983I$	$0.427761 + 1.172730I$	$3.97072 - 6.15691I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.071219-0.453256I$ $a=\ \ 0.721477+0.736546I$ $b=\ \ 0.251352-0.377983I$	$0.427761-1.172730I$	$3.97072+6.15691I$
$u=-0.293825+0.308935I$ $a=-0.95095+2.23466I$ $b=-0.316383+1.006490I$	$-3.60162-1.11181I$	$-5.69253+2.09546I$
$u=-0.293825-0.308935I$ $a=-0.95095-2.23466I$ $b=-0.316383-1.006490I$	$-3.60162+1.11181I$	$-5.69253-2.09546I$
$u=-0.176507+0.105361I$ $a=\ \ 1.79143-4.36130I$ $b=\ \ 0.718621+0.524057I$	$0.94655+2.13065I$	$3.53909-3.27688I$
$u=-0.176507-0.105361I$ $a=\ \ 1.79143+4.36130I$ $b=\ \ 0.718621-0.524057I$	$0.94655-2.13065I$	$3.53909+3.27688I$
$u=\ \ 0.109262+0.145309I$ $a=\ \ 5.05773+3.28326I$ $b=-0.809661-0.678376I$	$-0.39898+7.14577I$	$0.37929-7.71207I$
$u=\ \ 0.109262-0.145309I$ $a=\ \ 5.05773-3.28326I$ $b=-0.809661+0.678376I$	$-0.39898-7.14577I$	$0.37929+7.71207I$

II. $\boldsymbol{I_2^u = \langle 3.21\times 10^6 u^{36} - 8.51\times 10^5 u^{35} + \cdots + 5.31\times 10^4 b - 2.92\times 10^6,\ 3.21\times 10^6 u^{36} - 8.51\times 10^5 u^{35} + \cdots + 5.31\times 10^4 a - 3.13\times 10^6,\ u^{37} + u^{36} + \cdots + 2u - 1\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -60.3276u^{36} + 16.0176u^{35} + \cdots - 134.708u + 58.9701 \\ -60.3276u^{36} + 16.0176u^{35} + \cdots - 132.708u + 54.9701 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1.93802u^{36} - 14.9172u^{35} + \cdots - 72.7027u + 24.0016 \\ -58.2978u^{36} - 45.2613u^{35} + \cdots - 325.009u + 101.099 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^2 + 1 \\ -u^4 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -69.3193u^{36} + 24.9884u^{35} + \cdots - 140.298u + 64.7513 \\ -51.4021u^{36} + 29.9371u^{35} + \cdots - 68.7206u + 36.8117 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -59.3276u^{36} + 15.0176u^{35} + \cdots - 134.708u + 58.9701 \\ -59.3276u^{36} + 15.0176u^{35} + \cdots - 132.708u + 54.9701 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 3.49015u^{36} - 11.0164u^{35} + \cdots - 47.3466u + 14.6451 \\ -47.7152u^{36} - 5.66967u^{35} + \cdots - 133.037u + 46.5210 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 71.1971u^{36} + 13.8239u^{35} + \cdots + 169.419u - 52.9595 \\ 91.3081u^{36} + 23.7980u^{35} + \cdots + 259.848u - 85.4942 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 46.6411u^{36} + 13.3569u^{35} + \cdots + 102.760u - 34.4590 \\ 32.0798u^{36} - 10.1208u^{35} + \cdots - 24.5471u + 1.82674 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{27277420}{53147}u^{36} - \frac{3181402}{53147}u^{35} + \cdots - \frac{71706772}{53147}u + \frac{24913109}{53147}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{37} - 21u^{36} + \cdots + 12u - 1$
c_2	$u^{37} + u^{36} + \cdots + 2u - 1$
c_3	$u^{37} - 5u^{35} + \cdots + 2u - 1$
c_4	$u^{37} + u^{36} + \cdots + 3u + 1$
c_5	$u^{37} - u^{36} + \cdots + 2u + 1$
c_6	$u^{37} + 18u^{36} + \cdots + 18u + 1$
c_7	$u^{37} - 19u^{36} + \cdots + 13u - 1$
c_8	$u^{37} + 2u^{36} + \cdots + 5u + 1$
c_9	$u^{37} - 5u^{36} + \cdots - 4u + 1$
c_{10}	$u^{37} - 19u^{36} + \cdots - 17u + 1$
c_{11}	$u^{37} - u^{36} + \cdots + 3u - 1$
c_{12}	$u^{37} - 4u^{36} + \cdots - 5u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{37} - y^{36} + \cdots - 116y - 1$
c_2, c_5	$y^{37} - 21y^{36} + \cdots + 12y - 1$
c_3	$y^{37} - 10y^{36} + \cdots + 14y - 1$
c_4, c_{11}	$y^{37} + 19y^{36} + \cdots - 17y - 1$
c_6	$y^{37} + 12y^{36} + \cdots - 120y^2 - 1$
c_7	$y^{37} + 11y^{36} + \cdots + 7y - 1$
c_8	$y^{37} + 6y^{36} + \cdots + 17y - 1$
c_9	$y^{37} - y^{36} + \cdots - 2y - 1$
c_{10}	$y^{37} + 3y^{36} + \cdots - 73y - 1$
c_{12}	$y^{37} + 2y^{36} + \cdots + y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.636360 + 0.780355I$ $a = 1.121450 + 0.089933I$ $b = 0.050971 + 0.294614I$	$1.94301 + 5.57497I$	$3.17751 - 6.09733I$
$u = 0.636360 - 0.780355I$ $a = 1.121450 - 0.089933I$ $b = 0.050971 - 0.294614I$	$1.94301 - 5.57497I$	$3.17751 + 6.09733I$
$u = 0.929573 + 0.324747I$ $a = 0.76409 + 1.46375I$ $b = 1.40220 + 2.48146I$	$-0.356489 + 0.688026I$	$-0.683493 - 1.081977I$
$u = 0.929573 - 0.324747I$ $a = 0.76409 - 1.46375I$ $b = 1.40220 - 2.48146I$	$-0.356489 - 0.688026I$	$-0.683493 + 1.081977I$
$u = -0.909768 + 0.344427I$ $a = -0.41618 + 1.59821I$ $b = -1.13504 + 2.89523I$	$-1.35075 - 5.66407I$	$-2.15599 + 6.15671I$
$u = -0.909768 - 0.344427I$ $a = -0.41618 - 1.59821I$ $b = -1.13504 - 2.89523I$	$-1.35075 + 5.66407I$	$-2.15599 - 6.15671I$
$u = -0.914509 + 0.308324I$ $a = 0.821358 - 1.031710I$ $b = 0.372931 + 0.023664I$	$-1.30915 + 8.39971I$	$-2.21916 - 10.51765I$
$u = -0.914509 - 0.308324I$ $a = 0.821358 + 1.031710I$ $b = 0.372931 - 0.023664I$	$-1.30915 - 8.39971I$	$-2.21916 + 10.51765I$
$u = 0.928357 + 0.259036I$ $a = -0.400360 - 1.136020I$ $b = -0.155434 - 0.362444I$	$-0.23011 - 3.12941I$	$-0.31946 + 4.76010I$
$u = 0.928357 - 0.259036I$ $a = -0.400360 + 1.136020I$ $b = -0.155434 + 0.362444I$	$-0.23011 + 3.12941I$	$-0.31946 - 4.76010I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.968327+0.400339I$ $a=\ \ 0.481131-0.276979I$ $b=-0.995697+0.297587I$	$-4.64121+2.66285I$	$-8.78178-2.44410I$
$u=-0.968327-0.400339I$ $a=\ \ 0.481131+0.276979I$ $b=-0.995697-0.297587I$	$-4.64121-2.66285I$	$-8.78178+2.44410I$
$u=-0.605875+0.729762I$ $a=-1.53601-0.15500I$ $b=-0.351090+0.201233I$	$3.08832-1.09963I$	$5.89565-0.28185I$
$u=-0.605875-0.729762I$ $a=-1.53601+0.15500I$ $b=-0.351090-0.201233I$	$3.08832+1.09963I$	$5.89565+0.28185I$
$u=\ \ 0.918262+0.172526I$ $a=\ \ 0.763004+0.939190I$ $b=\ \ 0.71890+1.44586I$	$-1.46734+1.62332I$	$-2.33782-6.01993I$
$u=\ \ 0.918262-0.172526I$ $a=\ \ 0.763004-0.939190I$ $b=\ \ 0.71890-1.44586I$	$-1.46734-1.62332I$	$-2.33782+6.01993I$
$u=\ \ 0.236700+0.883679I$ $a=\ \ 0.226767-0.321382I$ $b=-0.162140+0.421168I$	$-0.924259-0.943713I$	$-7.33975+6.12981I$
$u=\ \ 0.236700-0.883679I$ $a=\ \ 0.226767+0.321382I$ $b=-0.162140-0.421168I$	$-0.924259+0.943713I$	$-7.33975-6.12981I$
$u=-0.827293+0.346568I$ $a=-0.307640+0.779415I$ $b=-0.15648+2.63330I$	$-4.06120+0.44955I$	$-10.20168-0.39324I$
$u=-0.827293-0.346568I$ $a=-0.307640-0.779415I$ $b=-0.15648-2.63330I$	$-4.06120-0.44955I$	$-10.20168+0.39324I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.447006+0.695397I$ $a=-1.35348-1.14865I$ $b=-0.371285-0.375676I$	$3.54644-2.96378I$	$3.90196+4.10249I$
$u=-0.447006-0.695397I$ $a=-1.35348+1.14865I$ $b=-0.371285+0.375676I$	$3.54644+2.96378I$	$3.90196-4.10249I$
$u=1.087260+0.481427I$ $a=-0.233225-0.304898I$ $b=0.568726-0.764158I$	$-3.59836-3.69556I$	$-6.70217+3.70626I$
$u=1.087260-0.481427I$ $a=-0.233225+0.304898I$ $b=0.568726+0.764158I$	$-3.59836+3.69556I$	$-6.70217-3.70626I$
$u=1.016060+0.618653I$ $a=-0.121085-1.299260I$ $b=0.07576-2.51417I$	$0.74356-10.83980I$	$0.+10.88143I$
$u=1.016060-0.618653I$ $a=-0.121085+1.299260I$ $b=0.07576+2.51417I$	$0.74356+10.83980I$	$0.-10.88143I$
$u=-1.027080+0.605357I$ $a=-0.18778-1.52071I$ $b=-0.50297-2.68204I$	$1.77824+6.20689I$	$0.-5.59321I$
$u=-1.027080-0.605357I$ $a=-0.18778+1.52071I$ $b=-0.50297+2.68204I$	$1.77824-6.20689I$	$0.+5.59321I$
$u=-1.075070+0.601295I$ $a=-0.718335-1.154960I$ $b=-1.07329-2.02633I$	$1.72174+8.01761I$	$0.-8.88964I$
$u=-1.075070-0.601295I$ $a=-0.718335+1.154960I$ $b=-1.07329+2.02633I$	$1.72174-8.01761I$	$0.+8.88964I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.020840 + 0.791819I$ $a = 0.394801 - 0.544825I$ $b = 0.080384 - 1.180470I$	$-1.13245 - 3.27552I$	$0. + 41.1711I$
$u = 1.020840 - 0.791819I$ $a = 0.394801 + 0.544825I$ $b = 0.080384 + 1.180470I$	$-1.13245 + 3.27552I$	$0. - 41.1711I$
$u = 1.46097$ $a = 0.465667$ $b = 0.692620$	-2.45249	0
$u = -1.48301 + 0.20333I$ $a = -0.120677 - 0.151126I$ $b = -0.349374 - 0.203202I$	$-7.04467 + 4.84529I$	0
$u = -1.48301 - 0.20333I$ $a = -0.120677 + 0.151126I$ $b = -0.349374 + 0.203202I$	$-7.04467 - 4.84529I$	0
$u = 0.254049 + 0.261294I$ $a = 2.08933 - 2.99081I$ $b = 0.136624 - 0.995665I$	$3.00637 - 2.83494I$	$3.37830 + 2.42808I$
$u = 0.254049 - 0.261294I$ $a = 2.08933 + 2.99081I$ $b = 0.136624 + 0.995665I$	$3.00637 + 2.83494I$	$3.37830 - 2.42808I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{37}-21u^{36}+\cdots+12u-1)(u^{177}+80u^{176}+\cdots+34u+1)$
c_2	$(u^{37}+u^{36}+\cdots+2u-1)(u^{177}+4u^{176}+\cdots+10u+1)$
c_3	$(u^{37}-5u^{35}+\cdots+2u-1)(u^{177}+u^{176}+\cdots+220952u-6793)$
c_4	$(u^{37}+u^{36}+\cdots+3u+1)(u^{177}+36u^{175}+\cdots-195u+59)$
c_5	$(u^{37}-u^{36}+\cdots+2u+1)(u^{177}+4u^{176}+\cdots+10u+1)$
c_6	$(u^{37}+18u^{36}+\cdots+18u+1)$ $\cdot(u^{177}-17u^{176}+\cdots-962894u+202189)$
c_7	$(u^{37}-19u^{36}+\cdots+13u-1)(u^{177}+8u^{176}+\cdots+79u-1)$
c_8	$(u^{37}+2u^{36}+\cdots+5u+1)$ $\cdot(u^{177}+u^{176}+\cdots-377547059u-63518701)$
c_9	$(u^{37}-5u^{36}+\cdots-4u+1)(u^{177}+18u^{176}+\cdots-5792u-523)$
c_{10}	$(u^{37}-19u^{36}+\cdots-17u+1)(u^{177}+72u^{176}+\cdots-103103u-3481)$
c_{11}	$(u^{37}-u^{36}+\cdots+3u-1)(u^{177}+36u^{175}+\cdots-195u+59)$
c_{12}	$(u^{37}-4u^{36}+\cdots-5u+1)(u^{177}+5u^{176}+\cdots+895865u-154903)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{37}-y^{36}+\cdots-116y-1)(y^{177}+44y^{176}+\cdots-2218y-1)$
c_2, c_5	$(y^{37}-21y^{36}+\cdots+12y-1)(y^{177}-80y^{176}+\cdots+34y-1)$
c_3	$(y^{37}-10y^{36}+\cdots+14y-1)$ $\cdot(y^{177}-17y^{176}+\cdots+37538868580y-46144849)$
c_4, c_{11}	$(y^{37}+19y^{36}+\cdots-17y-1)(y^{177}+72y^{176}+\cdots-103103y-3481)$
c_6	$(y^{37}+12y^{36}+\cdots-120y^2-1)$ $\cdot(y^{177}-27y^{176}+\cdots-44453979886y-40880391721)$
c_7	$(y^{37}+11y^{36}+\cdots+7y-1)(y^{177}+12y^{176}+\cdots+549y-1)$
c_8	$(y^{37}+6y^{36}+\cdots+17y-1)$ $\cdot(y^{177}-37y^{176}+\cdots+2708603121308157 91y-4034625376727401)$
c_9	$(y^{37}-y^{36}+\cdots-2y-1)(y^{177}+8y^{176}+\cdots-2.89826\times10^7y-273529)$
c_{10}	$(y^{37}+3y^{36}+\cdots-73y-1)$ $\cdot(y^{177}+72y^{176}+\cdots-1149837415y-12117361)$
c_{12}	$(y^{37}+2y^{36}+\cdots+y-1)$ $\cdot(y^{177}+31y^{176}+\cdots-1661817074137y-23994939409)$