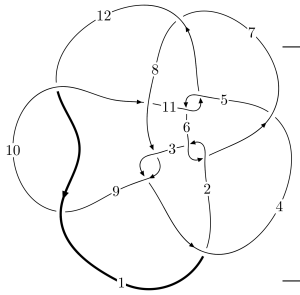
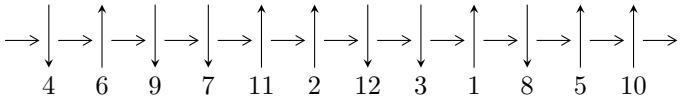
$12a_{0913}$ $(K12a_{0913})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -1.23675 \times 10^{864} u^{158} + 8.56639 \times 10^{864} u^{157} + \cdots + 1.08073 \times 10^{866} b - 2.39792 \times 10^{869},$$
$$9.55810 \times 10^{868} u^{158} + 2.76471 \times 10^{869} u^{157} + \cdots + 6.48654 \times 10^{869} a - 4.53046 \times 10^{873},$$
$$u^{159} + u^{158} + \cdots - 95441u - 24008 \rangle$$
$$I_2^u = \langle -7.72164 \times 10^{68} u^{49} - 3.42499 \times 10^{69} u^{48} + \cdots + 1.57649 \times 10^{69} b + 6.72123 \times 10^{70},$$
$$5.04081 \times 10^{69} u^{49} - 1.88268 \times 10^{70} u^{48} + \cdots + 4.72946 \times 10^{69} a + 3.67110 \times 10^{71},\ u^{50} + 11u^{48} + \cdots + 15u -$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 209 representations.

[1]The image of knot diagram is generated by the software "**Draw programme**" developed by Andrew Bartholomew(`http://www.layer8.co.uk/maths/draw/index.htm#Running-draw`), where we modified some parts for our purpose(`https://github.com/CATsTAILs/LinksPainter`).

[2]All coefficients of polynomials are rational numbers. But the coefficients are sometimes approximated in decimal forms when there is not enough margin.

I. $\boldsymbol{I_1^u = \langle -1.24 \times 10^{864} u^{158} + 8.57 \times 10^{864} u^{157} + \cdots + 1.08 \times 10^{866} b - 2.40 \times 10^{869},\ 9.56 \times 10^{868} u^{158} + 2.76 \times 10^{869} u^{157} + \cdots + 6.49 \times 10^{869} a - 4.53 \times 10^{873},\ u^{159} + u^{158} + \cdots - 95441u - 24008 \rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} -0.147353u^{158} - 0.426224u^{157} + \cdots + 31421.1u + 6984.41 \\ 0.0114437u^{158} - 0.0792649u^{157} + \cdots + 8457.34u + 2218.80 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.00578855u^{158} - 0.0950449u^{157} + \cdots + 9725.12u + 2508.09 \\ 0.156936u^{158} + 0.237303u^{157} + \cdots - 12211.3u - 2055.51 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.357898u^{158} + 0.241453u^{157} + \cdots + 2030.58u + 2910.40 \\ -0.0884457u^{158} - 0.131877u^{157} + \cdots + 7349.06u + 1277.73 \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} -0.0431647u^{158} - 0.0826383u^{157} + \cdots + 5777.86u + 1157.47 \\ -0.489509u^{158} - 0.455968u^{157} + \cdots + 11096.3u - 475.196 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.00256598u^{158} + 0.0441083u^{157} + \cdots - 4552.86u - 1152.68 \\ -0.0179626u^{158} + 0.0140324u^{157} + \cdots - 2580.84u - 742.756 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.126198u^{158} - 0.401253u^{157} + \cdots + 31148.5u + 7083.44 \\ 0.0725043u^{158} + 0.0139851u^{157} + \cdots + 3714.98u + 1451.08 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.0722265u^{158} - 0.00605847u^{157} + \cdots + 5929.89u + 1975.45 \\ 0.0504978u^{158} - 0.0108585u^{157} + \cdots + 5189.42u + 1635.88 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.0756881u^{158} + 0.122223u^{157} + \cdots - 7580.53u - 1432.70 \\ 0.0634567u^{158} + 0.0797254u^{157} + \cdots - 4471.11u - 724.940 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -2.37885u^{158} + 1.78647u^{157} + \cdots - 358356.u - 105900.$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{159} - 8u^{158} + \cdots + 80215197u - 1927186$
c_2, c_6	$u^{159} - 3u^{158} + \cdots - 3046266u - 178861$
c_3, c_8	$u^{159} - u^{158} + \cdots - 8744042u + 1097059$
c_4	$u^{159} - 7u^{158} + \cdots + 32390037u - 6440257$
c_5, c_{11}	$u^{159} + u^{158} + \cdots - 95441u - 24008$
c_7	$u^{159} + 15u^{158} + \cdots + 43507681u - 2774953$
c_9, c_{12}	$u^{159} + 5u^{158} + \cdots + 159249u + 8893$
c_{10}	$u^{159} - 15u^{158} + \cdots - 333964577u + 95115071$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{159} - 82y^{158} + \cdots + 3262006438404145y - 3714045878596$
c_2, c_6	$y^{159} + 115y^{158} + \cdots + 126566005786y - 31991257321$
c_3, c_8	$y^{159} - 105y^{158} + \cdots + 42991384255528y - 1203538449481$
c_4	$y^{159} - 61y^{158} + \cdots + 774738334454811y - 41476910226049$
c_5, c_{11}	$y^{159} + 97y^{158} + \cdots - 15736846703y - 576384064$
c_7	$y^{159} - 57y^{158} + \cdots + 1120931842505265y - 7700364152209$
c_9, c_{12}	$y^{159} + 127y^{158} + \cdots + 291286079y - 79085449$
c_{10}	$y^{159} - 59y^{158} + \cdots + 1754195507846337117y - 9046876731335041$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.331449 + 0.959871I$ $a = -1.87562 - 0.22966I$ $b = -2.02429 - 0.05797I$	$-9.26485 + 9.17013I$	0
$u = 0.331449 - 0.959871I$ $a = -1.87562 + 0.22966I$ $b = -2.02429 + 0.05797I$	$-9.26485 - 9.17013I$	0
$u = -1.014430 + 0.098634I$ $a = 0.451232 - 0.570464I$ $b = 0.04601 + 1.78543I$	$-0.82025 + 3.44925I$	0
$u = -1.014430 - 0.098634I$ $a = 0.451232 + 0.570464I$ $b = 0.04601 - 1.78543I$	$-0.82025 - 3.44925I$	0
$u = -0.105746 + 1.013950I$ $a = -0.38849 - 3.37577I$ $b = 0.19676 - 2.47170I$	$-1.18179 - 3.20636I$	0
$u = -0.105746 - 1.013950I$ $a = -0.38849 + 3.37577I$ $b = 0.19676 + 2.47170I$	$-1.18179 + 3.20636I$	0
$u = 1.027040 + 0.093678I$ $a = 0.325147 + 0.603162I$ $b = 0.14935 - 1.94748I$	$-5.64108 - 7.19608I$	0
$u = 1.027040 - 0.093678I$ $a = 0.325147 - 0.603162I$ $b = 0.14935 + 1.94748I$	$-5.64108 + 7.19608I$	0
$u = -0.007128 + 0.966467I$ $a = -0.91257 - 3.00884I$ $b = 0.265736 - 0.196627I$	$-5.35993 - 0.16362I$	0
$u = -0.007128 - 0.966467I$ $a = -0.91257 + 3.00884I$ $b = 0.265736 + 0.196627I$	$-5.35993 + 0.16362I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.206168+1.014050I$ $a=\ \ 0.702066+0.183119I$ $b=-0.707965+0.099887I$	$-4.72393+1.17967I$	0
$u=-0.206168-1.014050I$ $a=\ \ 0.702066-0.183119I$ $b=-0.707965-0.099887I$	$-4.72393-1.17967I$	0
$u=\ \ 0.963567+0.007515I$ $a=\ \ 0.347493-0.236451I$ $b=\ \ 0.241095+1.028930I$	$-3.13062-0.11256I$	0
$u=\ \ 0.963567-0.007515I$ $a=\ \ 0.347493+0.236451I$ $b=\ \ 0.241095-1.028930I$	$-3.13062+0.11256I$	0
$u=\ \ 0.027589+1.039060I$ $a=\ \ 0.43849+2.47650I$ $b=\ \ 0.71163+1.31819I$	$-3.47849+0.04457I$	0
$u=\ \ 0.027589-1.039060I$ $a=\ \ 0.43849-2.47650I$ $b=\ \ 0.71163-1.31819I$	$-3.47849-0.04457I$	0
$u=\ \ 0.005856+0.947362I$ $a=\ \ 1.47155+1.25478I$ $b=\ \ 1.71025+0.16199I$	$-3.13181+0.06061I$	0
$u=\ \ 0.005856-0.947362I$ $a=\ \ 1.47155-1.25478I$ $b=\ \ 1.71025-0.16199I$	$-3.13181-0.06061I$	0
$u=-0.047301+1.053540I$ $a=-0.846698+0.406491I$ $b=\ \ 0.278061-0.181203I$	$-3.89278-1.46765I$	0
$u=-0.047301-1.053540I$ $a=-0.846698-0.406491I$ $b=\ \ 0.278061+0.181203I$	$-3.89278+1.46765I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.796936+0.498050I$ $a=-0.378245+0.302345I$ $b=-0.064321+0.714699I$	$-2.37488+1.85883I$	0
$u=-0.796936-0.498050I$ $a=-0.378245-0.302345I$ $b=-0.064321-0.714699I$	$-2.37488-1.85883I$	0
$u=0.930792+0.099542I$ $a=-1.086010-0.411935I$ $b=-0.154613+0.497469I$	$-5.75841+7.93505I$	0
$u=0.930792-0.099542I$ $a=-1.086010+0.411935I$ $b=-0.154613-0.497469I$	$-5.75841-7.93505I$	0
$u=-0.025548+1.073190I$ $a=0.25346+1.95808I$ $b=-0.591747+0.924856I$	$-4.00735+0.66015I$	0
$u=-0.025548-1.073190I$ $a=0.25346-1.95808I$ $b=-0.591747-0.924856I$	$-4.00735-0.66015I$	0
$u=0.147611+0.907402I$ $a=-2.28013+3.50215I$ $b=-1.08327+2.58283I$	$-6.31757+6.13575I$	0
$u=0.147611-0.907402I$ $a=-2.28013-3.50215I$ $b=-1.08327-2.58283I$	$-6.31757-6.13575I$	0
$u=-0.270464+1.053880I$ $a=0.220215+0.410628I$ $b=0.865549+0.010959I$	$-1.13430-5.16965I$	0
$u=-0.270464-1.053880I$ $a=0.220215-0.410628I$ $b=0.865549-0.010959I$	$-1.13430+5.16965I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.986643+0.464553I$ $a=\ \ 0.645433+0.557256I$ $b=-0.828812-0.697243I$	$-1.46392-1.72596I$	0
$u=-0.986643-0.464553I$ $a=\ \ 0.645433-0.557256I$ $b=-0.828812+0.697243I$	$-1.46392+1.72596I$	0
$u=\ \ 0.326680+1.043560I$ $a=-1.232940+0.026388I$ $b=-1.05491+1.16508I$	$-9.11718+3.78460I$	0
$u=\ \ 0.326680-1.043560I$ $a=-1.232940-0.026388I$ $b=-1.05491-1.16508I$	$-9.11718-3.78460I$	0
$u=-0.439715+1.019970I$ $a=-1.215290-0.543396I$ $b=-0.924564-0.546092I$	$-4.04313-6.43433I$	0
$u=-0.439715-1.019970I$ $a=-1.215290+0.543396I$ $b=-0.924564+0.546092I$	$-4.04313+6.43433I$	0
$u=\ \ 0.093402+1.111110I$ $a=-0.482507-0.125489I$ $b=-1.301650+0.417064I$	$-2.49562+2.39792I$	0
$u=\ \ 0.093402-1.111110I$ $a=-0.482507+0.125489I$ $b=-1.301650-0.417064I$	$-2.49562-2.39792I$	0
$u=\ \ 0.427649+0.770098I$ $a=\ \ 0.632864+0.592147I$ $b=\ \ 0.693759+0.434627I$	$0.27472+1.85275I$	0
$u=\ \ 0.427649-0.770098I$ $a=\ \ 0.632864-0.592147I$ $b=\ \ 0.693759-0.434627I$	$0.27472-1.85275I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.059139+1.118840I$ $a=-1.49842-0.15052I$ $b=-2.31279-0.94060I$	$-7.66974-5.81212I$	0
$u=-0.059139-1.118840I$ $a=-1.49842+0.15052I$ $b=-2.31279+0.94060I$	$-7.66974+5.81212I$	0
$u=0.105934+1.115430I$ $a=-0.773443+0.267657I$ $b=-0.146736+0.819410I$	$-9.28250+3.60158I$	0
$u=0.105934-1.115430I$ $a=-0.773443-0.267657I$ $b=-0.146736-0.819410I$	$-9.28250-3.60158I$	0
$u=0.096505+1.121460I$ $a=-0.26282-2.56182I$ $b=-1.29469-2.13196I$	$-9.49062-2.16955I$	0
$u=0.096505-1.121460I$ $a=-0.26282+2.56182I$ $b=-1.29469+2.13196I$	$-9.49062+2.16955I$	0
$u=-0.812851+0.308744I$ $a=0.321515-0.416491I$ $b=-0.08798+1.64851I$	$-10.39250-0.95844I$	0
$u=-0.812851-0.308744I$ $a=0.321515+0.416491I$ $b=-0.08798-1.64851I$	$-10.39250+0.95844I$	0
$u=-0.383628+0.770829I$ $a=1.63748-1.40119I$ $b=1.70091-0.66882I$	$-3.04898-1.72781I$	0
$u=-0.383628-0.770829I$ $a=1.63748+1.40119I$ $b=1.70091+0.66882I$	$-3.04898+1.72781I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.814637 + 0.806006I$ $a = -0.194321 + 0.413504I$ $b = 0.379575 - 0.762055I$	$-3.73916 + 3.05466I$	0
$u = 0.814637 - 0.806006I$ $a = -0.194321 - 0.413504I$ $b = 0.379575 + 0.762055I$	$-3.73916 - 3.05466I$	0
$u = 0.316018 + 0.780735I$ $a = 0.760174 + 0.065560I$ $b = 0.803027 + 0.272314I$	$0.21168 + 1.77831I$	0
$u = 0.316018 - 0.780735I$ $a = 0.760174 - 0.065560I$ $b = 0.803027 - 0.272314I$	$0.21168 - 1.77831I$	0
$u = 0.144941 + 1.170880I$ $a = 0.85577 - 2.13653I$ $b = 1.06163 - 1.93733I$	$-11.88590 + 1.90553I$	0
$u = 0.144941 - 1.170880I$ $a = 0.85577 + 2.13653I$ $b = 1.06163 + 1.93733I$	$-11.88590 - 1.90553I$	0
$u = -0.206468 + 1.161840I$ $a = 0.45549 + 2.11009I$ $b = 0.26222 + 1.54340I$	$-7.22920 - 5.91815I$	0
$u = -0.206468 - 1.161840I$ $a = 0.45549 - 2.11009I$ $b = 0.26222 - 1.54340I$	$-7.22920 + 5.91815I$	0
$u = 0.266217 + 1.150440I$ $a = 0.38049 - 2.22730I$ $b = -0.26969 - 1.42529I$	$-11.0945 + 10.2461I$	0
$u = 0.266217 - 1.150440I$ $a = 0.38049 + 2.22730I$ $b = -0.26969 + 1.42529I$	$-11.0945 - 10.2461I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.522240 + 0.627796I$ $a = -1.15089 - 1.09931I$ $b = -0.788166 - 0.577690I$	$-8.38649 - 5.65854I$	0
$u = 0.522240 - 0.627796I$ $a = -1.15089 + 1.09931I$ $b = -0.788166 + 0.577690I$	$-8.38649 + 5.65854I$	0
$u = 0.499932 + 0.643166I$ $a = 0.400852 + 0.726008I$ $b = 0.366515 - 0.076701I$	$0.60801 + 1.85316I$	0
$u = 0.499932 - 0.643166I$ $a = 0.400852 - 0.726008I$ $b = 0.366515 + 0.076701I$	$0.60801 - 1.85316I$	0
$u = -0.769962 + 0.163866I$ $a = 0.547244 + 0.349551I$ $b = 0.317116 + 0.011355I$	$-1.68423 + 3.19160I$	0
$u = -0.769962 - 0.163866I$ $a = 0.547244 - 0.349551I$ $b = 0.317116 - 0.011355I$	$-1.68423 - 3.19160I$	0
$u = -0.736684 + 0.276291I$ $a = 0.83859 + 1.19214I$ $b = -0.194284 - 0.743319I$	$-2.35427 - 4.71025I$	0
$u = -0.736684 - 0.276291I$ $a = 0.83859 - 1.19214I$ $b = -0.194284 + 0.743319I$	$-2.35427 + 4.71025I$	0
$u = 0.725780 + 0.250756I$ $a = 0.937083 - 0.554393I$ $b = -0.000028 + 0.163275I$	$1.81915 + 0.50684I$	0
$u = 0.725780 - 0.250756I$ $a = 0.937083 + 0.554393I$ $b = -0.000028 - 0.163275I$	$1.81915 - 0.50684I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.358578+1.183900I$ $a=\ \ 0.298937-0.398434I$ $b=-0.013537-0.528845I$	$-5.68724-0.48018I$	0
$u=-0.358578-1.183900I$ $a=\ \ 0.298937+0.398434I$ $b=-0.013537+0.528845I$	$-5.68724+0.48018I$	0
$u=\ \ 0.452125+1.162110I$ $a=\ \ 0.223636+0.406651I$ $b=-0.209376+0.349866I$	$-1.00597+3.92740I$	0
$u=\ \ 0.452125-1.162110I$ $a=\ \ 0.223636-0.406651I$ $b=-0.209376-0.349866I$	$-1.00597-3.92740I$	0
$u=-1.249640+0.080816I$ $a=-0.392212+0.379652I$ $b=\ \ 0.02648-2.03225I$	$-10.1461+13.3814I$	0
$u=-1.249640-0.080816I$ $a=-0.392212-0.379652I$ $b=\ \ 0.02648+2.03225I$	$-10.1461-13.3814I$	0
$u=\ \ 1.25488$ $a=\ \ 1.22864$ $b=-0.765551$	2.41642	0
$u=-0.485103+1.159700I$ $a=\ \ 0.137615-0.648439I$ $b=\ \ 0.000805-0.370392I$	$-4.64518-7.83372I$	0
$u=-0.485103-1.159700I$ $a=\ \ 0.137615+0.648439I$ $b=\ \ 0.000805+0.370392I$	$-4.64518+7.83372I$	0
$u=-1.157900+0.515482I$ $a=\ \ 0.208762+1.102190I$ $b=-1.40204-1.74039I$	$-1.84246-3.96352I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.157900-0.515482I$ $a=\ \ 0.208762-1.102190I$ $b=-1.40204+1.74039I$	$-1.84246+3.96352I$	0
$u=\ \ 0.446897+1.189680I$ $a=-0.67328+1.39673I$ $b=\ \ 0.089031+1.397490I$	$-6.84887+4.76569I$	0
$u=\ \ 0.446897-1.189680I$ $a=-0.67328-1.39673I$ $b=\ \ 0.089031-1.397490I$	$-6.84887-4.76569I$	0
$u=-0.544295+1.168160I$ $a=-0.149684+0.322845I$ $b=-0.873873-0.247173I$	$-3.77096-3.90843I$	0
$u=-0.544295-1.168160I$ $a=-0.149684-0.322845I$ $b=-0.873873+0.247173I$	$-3.77096+3.90843I$	0
$u=-0.703908+0.068401I$ $a=\ \ 0.655831+0.062267I$ $b=-0.273470-0.810045I$	$-1.62859-1.50701I$	0
$u=-0.703908-0.068401I$ $a=\ \ 0.655831-0.062267I$ $b=-0.273470+0.810045I$	$-1.62859+1.50701I$	0
$u=-1.187970+0.599390I$ $a=-0.348339-0.089925I$ $b=-0.18388-1.81300I$	$-9.33762-1.89266I$	0
$u=-1.187970-0.599390I$ $a=-0.348339+0.089925I$ $b=-0.18388+1.81300I$	$-9.33762+1.89266I$	0
$u=-0.358853+1.296280I$ $a=\ \ 0.52674+2.09742I$ $b=-0.92398+2.21765I$	$-15.1255-4.9139I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.358853-1.296280I$ $a=\ \ 0.52674-2.09742I$ $b=-0.92398-2.21765I$	$-15.1255+4.9139I$	0
$u=\ \ 1.334110+0.189473I$ $a=\ \ 0.191326+0.767859I$ $b=\ \ 0.15389-2.46775I$	$-1.93289+0.56643I$	0
$u=\ \ 1.334110-0.189473I$ $a=\ \ 0.191326-0.767859I$ $b=\ \ 0.15389+2.46775I$	$-1.93289-0.56643I$	0
$u=-0.678068+1.171080I$ $a=-0.454534-0.691144I$ $b=\ \ 0.471631-0.549554I$	$-4.97588-6.92931I$	0
$u=-0.678068-1.171080I$ $a=-0.454534+0.691144I$ $b=\ \ 0.471631+0.549554I$	$-4.97588+6.92931I$	0
$u=\ \ 0.261169+1.343400I$ $a=\ \ 0.31448-2.13252I$ $b=-0.62595-2.56704I$	$-10.09370+5.75820I$	0
$u=\ \ 0.261169-1.343400I$ $a=\ \ 0.31448+2.13252I$ $b=-0.62595+2.56704I$	$-10.09370-5.75820I$	0
$u=\ \ 0.418902+1.310450I$ $a=\ \ 0.66726-1.73551I$ $b=-1.01145-2.17863I$	$-10.26850-2.21343I$	0
$u=\ \ 0.418902-1.310450I$ $a=\ \ 0.66726+1.73551I$ $b=-1.01145+2.17863I$	$-10.26850+2.21343I$	0
$u=-0.138378+1.371850I$ $a=\ \ 0.04900+2.32700I$ $b=-0.39554+3.10585I$	$-13.5028-7.4928I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.138378-1.371850I$ $a=\ \ 0.04900-2.32700I$ $b=-0.39554-3.10585I$	$-13.5028+7.4928I$	0
$u=\ \ 0.484571+1.301100I$ $a=-1.00744+1.75593I$ $b=\ \ 0.19767+2.66554I$	$-8.22695+5.38031I$	0
$u=\ \ 0.484571-1.301100I$ $a=-1.00744-1.75593I$ $b=\ \ 0.19767-2.66554I$	$-8.22695-5.38031I$	0
$u=\ \ 0.514271+1.290290I$ $a=\ \ 0.393656-0.290781I$ $b=-0.418409-0.383558I$	$-7.06348+5.40793I$	0
$u=\ \ 0.514271-1.290290I$ $a=\ \ 0.393656+0.290781I$ $b=-0.418409+0.383558I$	$-7.06348-5.40793I$	0
$u=-0.676149+1.214900I$ $a=-1.21194-1.21304I$ $b=\ \ 0.60213-1.94702I$	$-12.84130-4.72638I$	0
$u=-0.676149-1.214900I$ $a=-1.21194+1.21304I$ $b=\ \ 0.60213+1.94702I$	$-12.84130+4.72638I$	0
$u=\ \ 1.104720+0.845440I$ $a=-0.574985+0.444823I$ $b=\ \ 1.078000-0.300541I$	$-3.50591+3.71554I$	0
$u=\ \ 1.104720-0.845440I$ $a=-0.574985-0.444823I$ $b=\ \ 1.078000+0.300541I$	$-3.50591-3.71554I$	0
$u=\ \ 1.392200+0.169807I$ $a=-0.289656-0.252465I$ $b=-0.01486+2.08062I$	$-4.50660-6.68866I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.392200 - 0.169807I$ $a = -0.289656 + 0.252465I$ $b = -0.01486 - 2.08062I$	$-4.50660 + 6.68866I$	0
$u = -0.016723 + 0.584676I$ $a = 1.47371 + 0.73503I$ $b = 0.079377 + 1.328000I$	$-9.63223 - 0.95108I$	$-10.46124 + 0.I$
$u = -0.016723 - 0.584676I$ $a = 1.47371 - 0.73503I$ $b = 0.079377 - 1.328000I$	$-9.63223 + 0.95108I$	$-10.46124 + 0.I$
$u = 0.46543 + 1.33926I$ $a = -0.335241 - 0.437237I$ $b = 0.265474 - 0.392860I$	$-10.1685 + 12.9580I$	0
$u = 0.46543 - 1.33926I$ $a = -0.335241 + 0.437237I$ $b = 0.265474 + 0.392860I$	$-10.1685 - 12.9580I$	0
$u = 0.54048 + 1.31131I$ $a = -0.92608 + 1.82847I$ $b = 0.81114 + 2.54043I$	$-9.4493 + 12.7977I$	0
$u = 0.54048 - 1.31131I$ $a = -0.92608 - 1.82847I$ $b = 0.81114 - 2.54043I$	$-9.4493 - 12.7977I$	0
$u = -0.53000 + 1.32665I$ $a = -0.86269 - 1.74973I$ $b = 0.69431 - 2.50874I$	$-4.72793 - 9.02952I$	0
$u = -0.53000 - 1.32665I$ $a = -0.86269 + 1.74973I$ $b = 0.69431 + 2.50874I$	$-4.72793 + 9.02952I$	0
$u = -0.50395 + 1.34036I$ $a = 0.58035 + 1.63104I$ $b = -1.30116 + 2.12303I$	$-5.00891 - 1.72048I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.50395-1.34036I$ $a=\ \ 0.58035-1.63104I$ $b=-1.30116-2.12303I$	$-5.00891+1.72048I$	0
$u=\ \ 0.558638+0.050830I$ $a=\ \ 1.60432-0.88463I$ $b=-0.048843+1.277850I$	$-4.43341+1.09517I$	$-2.80268+0.I$
$u=\ \ 0.558638-0.050830I$ $a=\ \ 1.60432+0.88463I$ $b=-0.048843-1.277850I$	$-4.43341-1.09517I$	$-2.80268+0.I$
$u=-0.23743+1.42321I$ $a=-0.33158-1.55068I$ $b=\ \ 0.79303-1.57660I$	$-16.2757-6.0964I$	0
$u=-0.23743-1.42321I$ $a=-0.33158+1.55068I$ $b=\ \ 0.79303+1.57660I$	$-16.2757+6.0964I$	0
$u=-0.182188+0.507554I$ $a=\ \ 2.20846-0.34747I$ $b=-0.0700079-0.0114904I$	$0.74518+2.70199I$	$6.09705+8.93008I$
$u=-0.182188-0.507554I$ $a=\ \ 2.20846+0.34747I$ $b=-0.0700079+0.0114904I$	$0.74518-2.70199I$	$6.09705-8.93008I$
$u=\ \ 0.361036+0.387708I$ $a=\ \ 1.051040-0.113076I$ $b=-0.877468+0.107129I$	$-5.23563+1.85567I$	$-2.02141-1.19335I$
$u=\ \ 0.361036-0.387708I$ $a=\ \ 1.051040+0.113076I$ $b=-0.877468-0.107129I$	$-5.23563-1.85567I$	$-2.02141+1.19335I$
$u=-0.142352+0.484741I$ $a=\ \ 1.051240+0.024653I$ $b=\ \ 0.629964+0.953936I$	$-0.05898+1.76305I$	$-60.10-1.214412I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.142352-0.484741I$ $a=\ \ 1.051240-0.024653I$ $b=\ \ 0.629964-0.953936I$	$-0.05898-1.76305I$	$-60.10+1.214412I$
$u=-0.44547+1.42740I$ $a=-0.243968+0.362423I$ $b=\ \ 0.561793+0.533218I$	$-4.31898-6.38185I$	0
$u=-0.44547-1.42740I$ $a=-0.243968-0.362423I$ $b=\ \ 0.561793-0.533218I$	$-4.31898+6.38185I$	0
$u=\ \ 0.67665+1.35112I$ $a=\ \ 0.055448-0.412412I$ $b=\ \ 0.575394-1.202040I$	$-8.96580-2.11243I$	0
$u=\ \ 0.67665-1.35112I$ $a=\ \ 0.055448+0.412412I$ $b=\ \ 0.575394+1.202040I$	$-8.96580+2.11243I$	0
$u=-0.60416+1.39048I$ $a=\ \ 0.88208+1.59689I$ $b=-0.65436+2.57122I$	$-14.3110-19.8553I$	0
$u=-0.60416-1.39048I$ $a=\ \ 0.88208-1.59689I$ $b=-0.65436-2.57122I$	$-14.3110+19.8553I$	0
$u=\ \ 0.47358+1.44323I$ $a=\ \ 0.40606-1.66453I$ $b=-1.41660-2.43899I$	$-7.38131+6.64518I$	0
$u=\ \ 0.47358-1.44323I$ $a=\ \ 0.40606+1.66453I$ $b=-1.41660+2.43899I$	$-7.38131-6.64518I$	0
$u=-0.451952+0.009408I$ $a=-1.37248-2.65345I$ $b=-0.264259+0.444034I$	$1.22543+2.80185I$	$7.98617-7.63935I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.451952-0.009408I$ $a=-1.37248+2.65345I$ $b=-0.264259-0.444034I$	$1.22543-2.80185I$	$7.98617+7.63935I$
$u=\ \ 0.63779+1.41946I$ $a=\ \ 0.83727-1.44537I$ $b=-0.62558-2.38067I$	$-8.6527+13.6977I$	0
$u=\ \ 0.63779-1.41946I$ $a=\ \ 0.83727+1.44537I$ $b=-0.62558+2.38067I$	$-8.6527-13.6977I$	0
$u=-1.56092$ $a=-1.01979$ $b=\ \ 0.866671$	1.33123	0
$u=\ \ 0.368719+0.199742I$ $a=\ \ 1.072920-0.233054I$ $b=-0.675568+1.126810I$	$-8.25598-7.54835I$	$-3.36824+2.59907I$
$u=\ \ 0.368719-0.199742I$ $a=\ \ 1.072920+0.233054I$ $b=-0.675568-1.126810I$	$-8.25598+7.54835I$	$-3.36824-2.59907I$
$u=-0.44914+1.51551I$ $a=-0.47028-1.74603I$ $b=\ \ 0.98007-3.27749I$	$-8.48613-9.33687I$	0
$u=-0.44914-1.51551I$ $a=-0.47028+1.74603I$ $b=\ \ 0.98007+3.27749I$	$-8.48613+9.33687I$	0
$u=\ \ 0.64281+1.45091I$ $a=-0.71312+1.46158I$ $b=\ \ 1.23147+2.66153I$	$-6.12500+6.57118I$	0
$u=\ \ 0.64281-1.45091I$ $a=-0.71312-1.46158I$ $b=\ \ 1.23147-2.66153I$	$-6.12500-6.57118I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.26432 + 1.59023I$ $a = -0.255582 + 1.366950I$ $b = 0.79208 + 1.94667I$	$-11.21150 - 0.32736I$	0
$u = 0.26432 - 1.59023I$ $a = -0.255582 - 1.366950I$ $b = 0.79208 - 1.94667I$	$-11.21150 + 0.32736I$	0
$u = -0.78903 + 1.41569I$ $a = 0.92434 + 1.13763I$ $b = -0.47686 + 2.14895I$	$-11.98310 - 5.76392I$	0
$u = -0.78903 - 1.41569I$ $a = 0.92434 - 1.13763I$ $b = -0.47686 - 2.14895I$	$-11.98310 + 5.76392I$	0
$u = -0.361658$ $a = 0.935815$ $b = -0.676241$	-1.78112	-4.44940
$u = -0.147459 + 0.317174I$ $a = 1.208160 + 0.004539I$ $b = -0.412265 - 1.044270I$	$-4.54719 + 4.06090I$	$-8.21161 - 0.21669I$
$u = -0.147459 - 0.317174I$ $a = 1.208160 - 0.004539I$ $b = -0.412265 + 1.044270I$	$-4.54719 - 4.06090I$	$-8.21161 + 0.21669I$
$u = -0.43090 + 1.60042I$ $a = -0.348510 - 1.254540I$ $b = 1.20446 - 2.00710I$	$-15.7144 + 6.9339I$	0
$u = -0.43090 - 1.60042I$ $a = -0.348510 + 1.254540I$ $b = 1.20446 + 2.00710I$	$-15.7144 - 6.9339I$	0

II. $\boldsymbol{I_2^u = \langle -7.72\times 10^{68}u^{49} - 3.42\times 10^{69}u^{48} + \cdots + 1.58\times 10^{69}b + 6.72\times 10^{70},\ 5.04\times 10^{69}u^{49} - 1.88\times 10^{70}u^{48} + \cdots + 4.73\times 10^{69}a + 3.67\times 10^{71},\ u^{50} + 11u^{48} + \cdots + 15u - 9\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} -1.06583u^{49} + 3.98075u^{48} + \cdots + 167.968u - 77.6219 \\ 0.489801u^{49} + 2.17255u^{48} + \cdots + 71.1491u - 42.6342 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.453371u^{49} + 4.16901u^{48} + \cdots + 169.813u - 84.4294 \\ 0.831377u^{49} + 2.11906u^{48} + \cdots + 68.4608u - 44.3286 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -1.21875u^{49} - 0.152259u^{48} + \cdots + 14.4083u - 1.78993 \\ -0.723126u^{49} + 0.0129383u^{48} + \cdots + 21.8285u - 4.87126 \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} -0.639172u^{49} + 0.0452825u^{48} + \cdots + 12.4257u - 3.27671 \\ -0.143548u^{49} + 0.210480u^{48} + \cdots + 19.8459u - 6.35804 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.596353u^{49} - 7.42853u^{48} + \cdots - 300.553u + 145.738 \\ 0.152023u^{49} - 4.81843u^{48} + \cdots - 164.313u + 86.4276 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 4.63476u^{49} - 2.40970u^{48} + \cdots - 151.038u + 45.9067 \\ 2.79752u^{49} - 0.421708u^{48} + \cdots - 56.8794u + 12.3998 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -7.25554u^{49} + 4.08207u^{48} + \cdots + 309.336u - 84.0007 \\ -3.98731u^{49} + 2.42343u^{48} + \cdots + 162.524u - 41.5434 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 2.95626u^{49} + 2.84311u^{48} + \cdots + 16.0102u - 38.3289 \\ -0.430049u^{49} + 2.21506u^{48} + \cdots + 53.6672u - 29.5231 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -8.42932u^{49} - 9.35486u^{48} + \cdots - 28.8372u + 141.918$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{50} - 13u^{49} + \cdots + 10u - 1$
c_2	$u^{50} - 2u^{49} + \cdots - 3u - 1$
c_3	$u^{50} - 10u^{48} + \cdots - 21u + 9$
c_4	$u^{50} - 12u^{49} + \cdots + 2u^2 + 1$
c_5	$u^{50} + 11u^{48} + \cdots + 15u - 9$
c_6	$u^{50} + 2u^{49} + \cdots + 3u - 1$
c_7	$u^{50} + 14u^{49} + \cdots - 2u - 1$
c_8	$u^{50} - 10u^{48} + \cdots + 21u + 9$
c_9	$u^{50} + 6u^{49} + \cdots + 8u + 1$
c_{10}	$u^{50} + 6u^{49} + \cdots + 32u + 1$
c_{11}	$u^{50} + 11u^{48} + \cdots - 15u - 9$
c_{12}	$u^{50} - 6u^{49} + \cdots - 8u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{50} - 13y^{49} + \cdots - 430y + 1$
c_2, c_6	$y^{50} + 36y^{49} + \cdots + 37y + 1$
c_3, c_8	$y^{50} - 20y^{49} + \cdots - 2421y + 81$
c_4	$y^{50} - 10y^{48} + \cdots + 4y + 1$
c_5, c_{11}	$y^{50} + 22y^{49} + \cdots + 1953y + 81$
c_7	$y^{50} - 8y^{49} + \cdots - 30y + 1$
c_9, c_{12}	$y^{50} + 36y^{49} + \cdots + 68y + 1$
c_{10}	$y^{50} - 22y^{49} + \cdots - 322y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.024155+0.972597I$ $a=-0.35773-2.60424I$ $b=\ \ 0.407123-0.280918I$	$-5.45309-0.15110I$	$-27.0239-3.5878I$
$u=-0.024155-0.972597I$ $a=-0.35773+2.60424I$ $b=\ \ 0.407123+0.280918I$	$-5.45309+0.15110I$	$-27.0239+3.5878I$
$u=-0.668218+0.693303I$ $a=\ \ 0.534504-0.007795I$ $b=\ \ 0.162062-0.350560I$	$-0.30424-2.42087I$	$-3.48746+5.64938I$
$u=-0.668218-0.693303I$ $a=\ \ 0.534504+0.007795I$ $b=\ \ 0.162062+0.350560I$	$-0.30424+2.42087I$	$-3.48746-5.64938I$
$u=\ \ 0.866391+0.414495I$ $a=-0.627600+0.401747I$ $b=\ \ 0.297437-1.001000I$	$-4.07301+5.09628I$	$-5.43623-6.15272I$
$u=\ \ 0.866391-0.414495I$ $a=-0.627600-0.401747I$ $b=\ \ 0.297437+1.001000I$	$-4.07301-5.09628I$	$-5.43623+6.15272I$
$u=\ \ 0.511700+0.916661I$ $a=\ \ 0.269401-1.111660I$ $b=-0.20588-1.46272I$	$-7.72208-1.29849I$	$-5.55816-0.60071I$
$u=\ \ 0.511700-0.916661I$ $a=\ \ 0.269401+1.111660I$ $b=-0.20588+1.46272I$	$-7.72208+1.29849I$	$-5.55816+0.60071I$
$u=-0.543856+0.918032I$ $a=-0.166101+0.917175I$ $b=-0.652030-0.126106I$	$-2.43996-2.59796I$	$-0.080780+1.341039I$
$u=-0.543856-0.918032I$ $a=-0.166101-0.917175I$ $b=-0.652030+0.126106I$	$-2.43996+2.59796I$	$-0.080780-1.341039I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.029513+1.068900I$ $a=\ \ 0.77541+1.95628I$ $b=-0.392468+0.586181I$	$-4.32905+0.46272I$	$-27.1904+13.5249I$
$u=-0.029513-1.068900I$ $a=\ \ 0.77541-1.95628I$ $b=-0.392468-0.586181I$	$-4.32905-0.46272I$	$-27.1904-13.5249I$
$u=-1.047460+0.281927I$ $a=\ \ 0.475716+0.878790I$ $b=-0.65299-1.54935I$	$-1.62321-2.73602I$	$-4.04148+3.95768I$
$u=-1.047460-0.281927I$ $a=\ \ 0.475716-0.878790I$ $b=-0.65299+1.54935I$	$-1.62321+2.73602I$	$-4.04148-3.95768I$
$u=\ \ 1.086390+0.112084I$ $a=\ \ 0.073264+0.509095I$ $b=\ \ 0.25870-1.46656I$	$-1.075830+0.278293I$	$1.49120+1.67846I$
$u=\ \ 1.086390-0.112084I$ $a=\ \ 0.073264-0.509095I$ $b=\ \ 0.25870+1.46656I$	$-1.075830-0.278293I$	$1.49120-1.67846I$
$u=\ \ 0.288248+0.859360I$ $a=\ \ 2.22859+1.53941I$ $b=\ \ 2.29907+0.68456I$	$-2.32073+1.32145I$	$1.73202-2.95234I$
$u=\ \ 0.288248-0.859360I$ $a=\ \ 2.22859-1.53941I$ $b=\ \ 2.29907-0.68456I$	$-2.32073-1.32145I$	$1.73202+2.95234I$
$u=-0.727438+0.899779I$ $a=-0.156658-0.364035I$ $b=-0.27527-1.39724I$	$-8.92290-0.74157I$	$-8.21818+0.I$
$u=-0.727438-0.899779I$ $a=-0.156658+0.364035I$ $b=-0.27527+1.39724I$	$-8.92290+0.74157I$	$-8.21818+0.I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.549320 + 1.073620I$ $a = -0.729401 + 0.857467I$ $b = -0.021701 + 0.650873I$	$-4.19332 + 5.65802I$	$-4.15222 - 3.61822I$
$u = 0.549320 - 1.073620I$ $a = -0.729401 - 0.857467I$ $b = -0.021701 - 0.650873I$	$-4.19332 - 5.65802I$	$-4.15222 + 3.61822I$
$u = -0.167786 + 0.742490I$ $a = -1.69949 - 0.70322I$ $b = -1.171950 + 0.415321I$	$-9.38363 - 8.02808I$	$-9.76145 + 4.70173I$
$u = -0.167786 - 0.742490I$ $a = -1.69949 + 0.70322I$ $b = -1.171950 - 0.415321I$	$-9.38363 + 8.02808I$	$-9.76145 - 4.70173I$
$u = -0.326179 + 1.238510I$ $a = -1.49182 - 0.80294I$ $b = -1.61369 - 1.69935I$	$-8.50056 - 7.12637I$	0
$u = -0.326179 - 1.238510I$ $a = -1.49182 + 0.80294I$ $b = -1.61369 + 1.69935I$	$-8.50056 + 7.12637I$	0
$u = -0.026484 + 0.692646I$ $a = -2.74877 + 3.08030I$ $b = -1.43183 + 1.94402I$	$-5.84946 + 5.63915I$	$0.116877 - 0.973543I$
$u = -0.026484 - 0.692646I$ $a = -2.74877 - 3.08030I$ $b = -1.43183 - 1.94402I$	$-5.84946 - 5.63915I$	$0.116877 + 0.973543I$
$u = 0.394685 + 1.265650I$ $a = -0.119376 + 0.326422I$ $b = -0.770242 + 0.474796I$	$-2.95351 + 5.15507I$	0
$u = 0.394685 - 1.265650I$ $a = -0.119376 - 0.326422I$ $b = -0.770242 - 0.474796I$	$-2.95351 - 5.15507I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.156810+0.650952I$ $a=\ \ 0.311852+0.975471I$ $b=-1.79222-1.16273I$	$-1.66487-3.54014I$	0
$u=-1.156810-0.650952I$ $a=\ \ 0.311852-0.975471I$ $b=-1.79222+1.16273I$	$-1.66487+3.54014I$	0
$u=\ \ 0.658545+0.118591I$ $a=-0.441800+0.347843I$ $b=\ \ 0.508996-0.999955I$	$-0.953803+0.368954I$	$0.072599+0.543637I$
$u=\ \ 0.658545-0.118591I$ $a=-0.441800-0.347843I$ $b=\ \ 0.508996+0.999955I$	$-0.953803-0.368954I$	$0.072599-0.543637I$
$u=\ \ 0.122190+1.327720I$ $a=-0.16813-2.12984I$ $b=-0.68210-2.31055I$	$-12.1831+7.6724I$	0
$u=\ \ 0.122190-1.327720I$ $a=-0.16813+2.12984I$ $b=-0.68210+2.31055I$	$-12.1831-7.6724I$	0
$u=\ \ 0.659604+1.218730I$ $a=\ \ 0.185879-0.616255I$ $b=-0.876829-0.328789I$	$-4.69384+6.27766I$	0
$u=\ \ 0.659604-1.218730I$ $a=\ \ 0.185879+0.616255I$ $b=-0.876829+0.328789I$	$-4.69384-6.27766I$	0
$u=\ \ 1.39521$ $a=\ \ 1.12172$ $b=-0.925932$	2.20804	0
$u=-0.394346+1.340360I$ $a=\ \ 0.75329+1.80412I$ $b=-0.16140+2.34788I$	$-11.14450-4.24832I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.394346-1.340360I$ $a=\ \ 0.75329-1.80412I$ $b=-0.16140-2.34788I$	$-11.14450+4.24832I$	0
$u=-1.39861$ $a=-1.10302$ $b=\ \ 0.655693$	1.56008	0
$u=\ \ 0.599018+1.266510I$ $a=-1.19997+1.53324I$ $b=\ \ 0.25400+2.67846I$	$-9.05380+6.20174I$	0
$u=\ \ 0.599018-1.266510I$ $a=-1.19997-1.53324I$ $b=\ \ 0.25400-2.67846I$	$-9.05380-6.20174I$	0
$u=-0.152690+0.538735I$ $a=-0.94185-1.44847I$ $b=\ \ 0.186922-1.217670I$	$0.12355-2.69515I$	$2.04952+8.48009I$
$u=-0.152690-0.538735I$ $a=-0.94185+1.44847I$ $b=\ \ 0.186922+1.217670I$	$0.12355+2.69515I$	$2.04952-8.48009I$
$u=\ \ 0.044496+0.526118I$ $a=-2.53212-0.30146I$ $b=-0.110035-0.307794I$	$0.57351-2.92968I$	$-10.9611+12.8773I$
$u=\ \ 0.044496-0.526118I$ $a=-2.53212+0.30146I$ $b=-0.110035+0.307794I$	$0.57351+2.92968I$	$-10.9611-12.8773I$
$u=-0.51395+1.47597I$ $a=-0.56977-1.66117I$ $b=\ \ 1.07144-2.87859I$	$-7.24314-8.51394I$	0
$u=-0.51395-1.47597I$ $a=-0.56977+1.66117I$ $b=\ \ 1.07144+2.87859I$	$-7.24314+8.51394I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{50}-13u^{49}+\cdots+10u-1)$ $\cdot(u^{159}-8u^{158}+\cdots+80215197u-1927186)$
c_2	$(u^{50}-2u^{49}+\cdots-3u-1)(u^{159}-3u^{158}+\cdots-3046266u-178861)$
c_3	$(u^{50}-10u^{48}+\cdots-21u+9)$ $\cdot(u^{159}-u^{158}+\cdots-8744042u+1097059)$
c_4	$(u^{50}-12u^{49}+\cdots+2u^2+1)$ $\cdot(u^{159}-7u^{158}+\cdots+32390037u-6440257)$
c_5	$(u^{50}+11u^{48}+\cdots+15u-9)(u^{159}+u^{158}+\cdots-95441u-24008)$
c_6	$(u^{50}+2u^{49}+\cdots+3u-1)(u^{159}-3u^{158}+\cdots-3046266u-178861)$
c_7	$(u^{50}+14u^{49}+\cdots-2u-1)$ $\cdot(u^{159}+15u^{158}+\cdots+43507681u-2774953)$
c_8	$(u^{50}-10u^{48}+\cdots+21u+9)$ $\cdot(u^{159}-u^{158}+\cdots-8744042u+1097059)$
c_9	$(u^{50}+6u^{49}+\cdots+8u+1)(u^{159}+5u^{158}+\cdots+159249u+8893)$
c_{10}	$(u^{50}+6u^{49}+\cdots+32u+1)$ $\cdot(u^{159}-15u^{158}+\cdots-333964577u+95115071)$
c_{11}	$(u^{50}+11u^{48}+\cdots-15u-9)(u^{159}+u^{158}+\cdots-95441u-24008)$
c_{12}	$(u^{50}-6u^{49}+\cdots-8u+1)(u^{159}+5u^{158}+\cdots+159249u+8893)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{50} - 13y^{49} + \cdots - 430y + 1)$ $\cdot (y^{159} - 82y^{158} + \cdots + 3262006438404145y - 3714045878596)$
c_2, c_6	$(y^{50} + 36y^{49} + \cdots + 37y + 1)$ $\cdot (y^{159} + 115y^{158} + \cdots + 126566005786y - 31991257321)$
c_3, c_8	$(y^{50} - 20y^{49} + \cdots - 2421y + 81)$ $\cdot (y^{159} - 105y^{158} + \cdots + 42991384255528y - 1203538449481)$
c_4	$(y^{50} - 10y^{48} + \cdots + 4y + 1)$ $\cdot (y^{159} - 61y^{158} + \cdots + 774738334454811y - 41476910226049)$
c_5, c_{11}	$(y^{50} + 22y^{49} + \cdots + 1953y + 81)$ $\cdot (y^{159} + 97y^{158} + \cdots - 15736846703y - 576384064)$
c_7	$(y^{50} - 8y^{49} + \cdots - 30y + 1)$ $\cdot (y^{159} - 57y^{158} + \cdots + 1120931842505265y - 7700364152209)$
c_9, c_{12}	$(y^{50} + 36y^{49} + \cdots + 68y + 1)$ $\cdot (y^{159} + 127y^{158} + \cdots + 291286079y - 79085449)$
c_{10}	$(y^{50} - 22y^{49} + \cdots - 322y + 1)$ $\cdot (y^{159} - 59y^{158} + \cdots + 1754195507846337117y - 9046876731335041)$