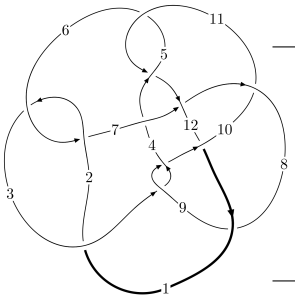
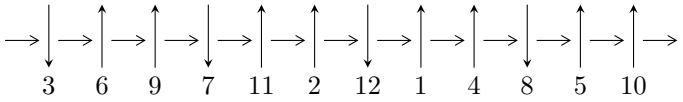
$12a_{0352}$ $(K12a_{0352})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 2.96609 \times 10^{1105} u^{176} - 3.83738 \times 10^{1104} u^{175} + \cdots + 6.11633 \times 10^{1104} b - 9.51664 \times 10^{1107}, \\ & - 2.51616 \times 10^{1108} u^{176} + 1.20236 \times 10^{1107} u^{175} + \cdots + 1.95111 \times 10^{1107} a + 7.44748 \times 10^{1110}, \\ & u^{177} - u^{176} + \cdots + 24611u + 319 \rangle \\ I_2^u = \langle & 1.02869 \times 10^{49} u^{47} - 3.44127 \times 10^{48} u^{46} + \cdots + 1.10032 \times 10^{48} b + 1.08498 \times 10^{49}, \\ & - 1.92965 \times 10^{50} u^{47} - 2.46970 \times 10^{50} u^{46} + \cdots + 1.44141 \times 10^{50} a + 3.77821 \times 10^{50}, \\ & u^{48} - 15u^{46} + \cdots - 12u^2 + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 225 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. $\boldsymbol{I_1^u = \langle 2.97 \times 10^{1105} u^{176} - 3.84 \times 10^{1104} u^{175} + \cdots + 6.12 \times 10^{1104} b - 9.52 \times 10^{1107},\ -2.52 \times 10^{1108} u^{176} + 1.20 \times 10^{1107} u^{175} + \cdots + 1.95 \times 10^{1107} a + 7.45 \times 10^{1110},\ u^{177} - u^{176} + \cdots + 24611u + 319 \rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 12.8960u^{176} - 0.616241u^{175} + \cdots - 303378.u - 3817.04 \\ -4.84946u^{176} + 0.627398u^{175} + \cdots + 121459.u + 1555.94 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -1.21098u^{176} - 2.03163u^{175} + \cdots + 18885.2u + 182.856 \\ 7.95313u^{176} + 0.537132u^{175} + \cdots - 197423.u - 2528.22 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -12.9583u^{176} + 1.34468u^{175} + \cdots + 396686.u + 5007.98 \\ 13.5311u^{176} - 1.03585u^{175} + \cdots - 386195.u - 4938.26 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 6.74216u^{176} - 1.49450u^{175} + \cdots - 178538.u - 2345.37 \\ 7.95313u^{176} + 0.537132u^{175} + \cdots - 197423.u - 2528.22 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 21.1834u^{176} - 0.888015u^{175} + \cdots - 528541.u - 6688.59 \\ -4.56245u^{176} + 0.393723u^{175} + \cdots + 110071.u + 1407.01 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -19.6697u^{176} + 0.463444u^{175} + \cdots + 455722.u + 5893.01 \\ 2.02934u^{176} + 0.0106858u^{175} + \cdots - 35113.8u - 448.517 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -20.7020u^{176} + 1.82477u^{175} + \cdots + 554243.u + 7140.03 \\ 1.33830u^{176} + 0.156511u^{175} + \cdots - 30854.2u - 394.092 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.212690u^{176} - 2.01555u^{175} + \cdots - 4391.01u - 114.140 \\ 8.31867u^{176} + 0.385996u^{175} + \cdots - 209484.u - 2681.81 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -23.1089u^{176} + 4.66059u^{175} + \cdots + 706669.u + 9028.87$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{177} + 73u^{176} + \cdots + 11276631u - 1297321$
c_2, c_6	$u^{177} - 3u^{176} + \cdots - 6887u - 1139$
c_3, c_9	$u^{177} + u^{176} + \cdots + 24611u - 319$
c_4	$u^{177} - 5u^{176} + \cdots + 18338760u - 3131800$
c_5, c_{11}	$u^{177} + u^{176} + \cdots + 4629u - 4757$
c_7	$u^{177} + 3u^{176} + \cdots - 5951521u - 528551$
c_8	$u^{177} - 3u^{176} + \cdots + 104415268440u - 9288287800$
c_{10}	$u^{177} - 15u^{176} + \cdots + 29069u - 1681$
c_{12}	$u^{177} + 17u^{176} + \cdots + 483u + 11$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{177} + 69y^{176} + \cdots - 147038796812525y - 1683041777041$
c_2, c_6	$y^{177} + 73y^{176} + \cdots + 11276631y - 1297321$
c_3, c_9	$y^{177} - 115y^{176} + \cdots + 299263541y - 101761$
c_4	$y^{177} - 7y^{176} + \cdots - 1006072150632800y - 9808171240000$
c_5, c_{11}	$y^{177} + 103y^{176} + \cdots - 778566563y - 22629049$
c_7	$y^{177} - 31y^{176} + \cdots + 18076638788669y - 279366159601$
c_8	$y^{177} - 47y^{176} + \cdots + 4.10 \times 10^{21}y - 8.63 \times 10^{19}$
c_{10}	$y^{177} - 19y^{176} + \cdots - 342723961y - 2825761$
c_{12}	$y^{177} - 15y^{176} + \cdots + 3389y - 121$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.973182 + 0.217001I$ $a = 1.71399 + 0.53877I$ $b = -0.540832 - 1.248140I$	$-3.01908 + 1.14097I$	0
$u = 0.973182 - 0.217001I$ $a = 1.71399 - 0.53877I$ $b = -0.540832 + 1.248140I$	$-3.01908 - 1.14097I$	0
$u = -0.993899 + 0.071284I$ $a = 1.81644 + 0.31446I$ $b = -0.677348 + 1.029230I$	$3.00302 - 1.00398I$	0
$u = -0.993899 - 0.071284I$ $a = 1.81644 - 0.31446I$ $b = -0.677348 - 1.029230I$	$3.00302 + 1.00398I$	0
$u = 0.999363 + 0.129740I$ $a = -2.45242 - 0.01630I$ $b = 0.759811 + 0.968001I$	$2.98085 + 5.50745I$	0
$u = 0.999363 - 0.129740I$ $a = -2.45242 + 0.01630I$ $b = 0.759811 - 0.968001I$	$2.98085 - 5.50745I$	0
$u = 0.788856 + 0.640660I$ $a = 0.246030 - 0.558015I$ $b = 0.465047 - 0.590023I$	$-1.57542 + 3.31184I$	0
$u = 0.788856 - 0.640660I$ $a = 0.246030 + 0.558015I$ $b = 0.465047 + 0.590023I$	$-1.57542 - 3.31184I$	0
$u = -0.547359 + 0.814883I$ $a = 1.367090 + 0.282359I$ $b = -0.113949 + 0.966419I$	$-2.65414 + 2.05064I$	0
$u = -0.547359 - 0.814883I$ $a = 1.367090 - 0.282359I$ $b = -0.113949 - 0.966419I$	$-2.65414 - 2.05064I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.848431 + 0.493734I$ $a = 0.699270 - 0.811450I$ $b = -0.234645 - 1.005600I$	$-1.87658 + 2.81067I$	0
$u = 0.848431 - 0.493734I$ $a = 0.699270 + 0.811450I$ $b = -0.234645 + 1.005600I$	$-1.87658 - 2.81067I$	0
$u = -1.018750 + 0.057637I$ $a = 0.000417 - 0.835658I$ $b = -0.205473 - 1.001370I$	$1.69901 - 0.92120I$	0
$u = -1.018750 - 0.057637I$ $a = 0.000417 + 0.835658I$ $b = -0.205473 + 1.001370I$	$1.69901 + 0.92120I$	0
$u = 0.488020 + 0.899488I$ $a = -1.297970 + 0.137273I$ $b = 0.341777 + 1.065650I$	$-6.91450 + 3.94045I$	0
$u = 0.488020 - 0.899488I$ $a = -1.297970 - 0.137273I$ $b = 0.341777 - 1.065650I$	$-6.91450 - 3.94045I$	0
$u = 0.905680 + 0.361635I$ $a = -2.12310 - 0.27755I$ $b = 0.927516 + 0.719232I$	$0.61525 + 4.20392I$	0
$u = 0.905680 - 0.361635I$ $a = -2.12310 + 0.27755I$ $b = 0.927516 - 0.719232I$	$0.61525 - 4.20392I$	0
$u = -0.963655 + 0.013676I$ $a = -2.51474 - 1.26141I$ $b = 0.622460 + 0.800809I$	$1.27019 - 0.73904I$	0
$u = -0.963655 - 0.013676I$ $a = -2.51474 + 1.26141I$ $b = 0.622460 - 0.800809I$	$1.27019 + 0.73904I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.951741 + 0.054623I$ $a = -0.182755 - 0.923549I$ $b = 0.17980 + 1.68565I$	$-4.42387 + 0.32102I$	0
$u = 0.951741 - 0.054623I$ $a = -0.182755 + 0.923549I$ $b = 0.17980 - 1.68565I$	$-4.42387 - 0.32102I$	0
$u = 0.948492 + 0.056418I$ $a = 3.22151 - 1.50521I$ $b = -0.578309 + 0.679607I$	$-1.16437 + 5.33260I$	0
$u = 0.948492 - 0.056418I$ $a = 3.22151 + 1.50521I$ $b = -0.578309 - 0.679607I$	$-1.16437 - 5.33260I$	0
$u = -0.944005 + 0.473346I$ $a = -1.286440 + 0.222316I$ $b = -0.273224 - 1.090570I$	$-4.29508 - 3.82033I$	0
$u = -0.944005 - 0.473346I$ $a = -1.286440 - 0.222316I$ $b = -0.273224 + 1.090570I$	$-4.29508 + 3.82033I$	0
$u = 0.438653 + 0.826052I$ $a = -1.064210 + 0.311156I$ $b = -0.007530 + 1.163200I$	$-7.31406 - 7.06957I$	0
$u = 0.438653 - 0.826052I$ $a = -1.064210 - 0.311156I$ $b = -0.007530 - 1.163200I$	$-7.31406 + 7.06957I$	0
$u = 0.766194 + 0.740817I$ $a = 0.700716 - 1.018480I$ $b = -0.513071 - 0.869825I$	$-1.63428 + 2.02135I$	0
$u = 0.766194 - 0.740817I$ $a = 0.700716 + 1.018480I$ $b = -0.513071 + 0.869825I$	$-1.63428 - 2.02135I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.058570+0.175312I$ $a=-1.59093+0.10254I$ $b=\ \ 1.343460-0.296937I$	$1.04789-6.97368I$	0
$u=-1.058570-0.175312I$ $a=-1.59093-0.10254I$ $b=\ \ 1.343460+0.296937I$	$1.04789+6.97368I$	0
$u=-0.918335$ $a=\ \ 0.646491$ $b=-0.613739$	1.30008	0
$u=\ \ 1.063940+0.228514I$ $a=-2.39872-0.88674I$ $b=\ \ 0.636394+0.898805I$	$0.95613+5.67641I$	0
$u=\ \ 1.063940-0.228514I$ $a=-2.39872+0.88674I$ $b=\ \ 0.636394-0.898805I$	$0.95613-5.67641I$	0
$u=-0.437350+0.793249I$ $a=-0.402756-0.736768I$ $b=\ \ 0.580315-1.041980I$	$-3.08165-7.82095I$	0
$u=-0.437350-0.793249I$ $a=-0.402756+0.736768I$ $b=\ \ 0.580315+1.041980I$	$-3.08165+7.82095I$	0
$u=-1.096930+0.003358I$ $a=-1.20696-1.25662I$ $b=\ \ 0.842595+0.774341I$	$3.58417+0.46139I$	0
$u=-1.096930-0.003358I$ $a=-1.20696+1.25662I$ $b=\ \ 0.842595-0.774341I$	$3.58417-0.46139I$	0
$u=\ \ 0.016998+1.099360I$ $a=-0.743087-0.338694I$ $b=\ \ 0.798304-0.556195I$	$-1.38811+8.54998I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.016998 - 1.099360I$ $a = -0.743087 + 0.338694I$ $b = 0.798304 + 0.556195I$	$-1.38811 - 8.54998I$	0
$u = 0.833080 + 0.298189I$ $a = -0.317648 - 0.796161I$ $b = 0.490994 - 0.053722I$	$-1.42981 + 3.53932I$	0
$u = 0.833080 - 0.298189I$ $a = -0.317648 + 0.796161I$ $b = 0.490994 + 0.053722I$	$-1.42981 - 3.53932I$	0
$u = -1.103440 + 0.194737I$ $a = 2.63622 - 1.29099I$ $b = -0.595127 + 0.996597I$	$-2.18412 - 10.04670I$	0
$u = -1.103440 - 0.194737I$ $a = 2.63622 + 1.29099I$ $b = -0.595127 - 0.996597I$	$-2.18412 + 10.04670I$	0
$u = 1.054480 + 0.387928I$ $a = 0.219118 - 0.222120I$ $b = -0.136225 + 1.326700I$	$-5.18585 + 0.72989I$	0
$u = 1.054480 - 0.387928I$ $a = 0.219118 + 0.222120I$ $b = -0.136225 - 1.326700I$	$-5.18585 - 0.72989I$	0
$u = 1.121660 + 0.108047I$ $a = 0.82782 - 1.23460I$ $b = 0.033177 - 0.825641I$	$-0.12373 + 5.19711I$	0
$u = 1.121660 - 0.108047I$ $a = 0.82782 + 1.23460I$ $b = 0.033177 + 0.825641I$	$-0.12373 - 5.19711I$	0
$u = 0.059653 + 0.850635I$ $a = 0.605448 + 0.615999I$ $b = -0.683318 + 0.939852I$	$1.32226 - 3.17752I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.059653 - 0.850635I$ $a = 0.605448 - 0.615999I$ $b = -0.683318 - 0.939852I$	$1.32226 + 3.17752I$	0
$u = -1.067160 + 0.450432I$ $a = 0.314701 + 0.307816I$ $b = -0.092513 + 1.229360I$	$-0.92822 - 6.71625I$	0
$u = -1.067160 - 0.450432I$ $a = 0.314701 - 0.307816I$ $b = -0.092513 - 1.229360I$	$-0.92822 + 6.71625I$	0
$u = -0.780451 + 0.283123I$ $a = -1.293050 + 0.503740I$ $b = 0.21164 - 1.41057I$	$-2.40099 - 1.38490I$	0
$u = -0.780451 - 0.283123I$ $a = -1.293050 - 0.503740I$ $b = 0.21164 + 1.41057I$	$-2.40099 + 1.38490I$	0
$u = 0.674296 + 0.478552I$ $a = 1.39976 - 0.70878I$ $b = -0.000556 - 0.950010I$	$-2.42144 + 1.37494I$	0
$u = 0.674296 - 0.478552I$ $a = 1.39976 + 0.70878I$ $b = -0.000556 + 0.950010I$	$-2.42144 - 1.37494I$	0
$u = 0.362750 + 0.741930I$ $a = 0.542606 - 0.555182I$ $b = -0.753746 + 0.859730I$	$-0.736764 - 0.032136I$	0
$u = 0.362750 - 0.741930I$ $a = 0.542606 + 0.555182I$ $b = -0.753746 - 0.859730I$	$-0.736764 + 0.032136I$	0
$u = 1.075180 + 0.487306I$ $a = -0.671409 - 0.005983I$ $b = 0.188532 + 1.368120I$	$-5.31229 + 11.91120I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.075180 - 0.487306I$ $a = -0.671409 + 0.005983I$ $b = 0.188532 - 1.368120I$	$-5.31229 - 11.91120I$	0
$u = -1.149770 + 0.304605I$ $a = 1.79161 - 1.12092I$ $b = -0.429332 + 0.820411I$	$-2.20660 - 1.60161I$	0
$u = -1.149770 - 0.304605I$ $a = 1.79161 + 1.12092I$ $b = -0.429332 - 0.820411I$	$-2.20660 + 1.60161I$	0
$u = -0.140203 + 0.794773I$ $a = -0.167669 + 0.729881I$ $b = 0.608005 + 1.061680I$	$0.01438 + 6.61227I$	0
$u = -0.140203 - 0.794773I$ $a = -0.167669 - 0.729881I$ $b = 0.608005 - 1.061680I$	$0.01438 - 6.61227I$	0
$u = -0.433278 + 0.674203I$ $a = -0.272369 - 0.668242I$ $b = 0.620632 + 1.031920I$	$-1.05576 + 1.47563I$	0
$u = -0.433278 - 0.674203I$ $a = -0.272369 + 0.668242I$ $b = 0.620632 - 1.031920I$	$-1.05576 - 1.47563I$	0
$u = 0.002501 + 0.792415I$ $a = -0.837985 - 0.503965I$ $b = 0.563389 + 0.099209I$	$-4.12440 - 0.51751I$	0
$u = 0.002501 - 0.792415I$ $a = -0.837985 + 0.503965I$ $b = 0.563389 - 0.099209I$	$-4.12440 + 0.51751I$	0
$u = -0.062312 + 1.209600I$ $a = 0.686123 - 0.350289I$ $b = -0.654572 - 0.668707I$	$1.53561 - 2.42439I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.062312-1.209600I$ $a=\ \ 0.686123+0.350289I$ $b=-0.654572+0.668707I$	$1.53561+2.42439I$	0
$u=\ \ 0.175064+0.766948I$ $a=\ \ 0.354860+0.308031I$ $b=-0.725520+0.758680I$	$1.87024-2.20760I$	0
$u=\ \ 0.175064-0.766948I$ $a=\ \ 0.354860-0.308031I$ $b=-0.725520-0.758680I$	$1.87024+2.20760I$	0
$u=\ \ 1.206750+0.146636I$ $a=\ \ 0.802325+0.203486I$ $b=-0.801442-0.267772I$	$4.59443+3.99257I$	0
$u=\ \ 1.206750-0.146636I$ $a=\ \ 0.802325-0.203486I$ $b=-0.801442+0.267772I$	$4.59443-3.99257I$	0
$u=\ \ 0.712914+0.324628I$ $a=\ \ 1.72143-0.60135I$ $b=-0.069220-1.029410I$	$-2.42470+1.41217I$	0
$u=\ \ 0.712914-0.324628I$ $a=\ \ 1.72143+0.60135I$ $b=-0.069220+1.029410I$	$-2.42470-1.41217I$	0
$u=-1.000280+0.730885I$ $a=-0.199559+0.117901I$ $b=-0.532944-0.854451I$	$-1.59120+2.21437I$	0
$u=-1.000280-0.730885I$ $a=-0.199559-0.117901I$ $b=-0.532944+0.854451I$	$-1.59120-2.21437I$	0
$u=\ \ 1.110100+0.573351I$ $a=\ \ 0.556768-0.516321I$ $b=-0.748577+0.864278I$	$3.25949-2.82517I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.110100 - 0.573351I$ $a = 0.556768 + 0.516321I$ $b = -0.748577 - 0.864278I$	$3.25949 + 2.82517I$	0
$u = -1.021770 + 0.734633I$ $a = 1.43388 + 0.42056I$ $b = -0.730025 + 0.843920I$	$3.31118 - 2.77410I$	0
$u = -1.021770 - 0.734633I$ $a = 1.43388 - 0.42056I$ $b = -0.730025 - 0.843920I$	$3.31118 + 2.77410I$	0
$u = 1.261400 + 0.000967I$ $a = 0.406000 - 0.854735I$ $b = -0.585213 + 0.659972I$	$4.23225 - 4.10830I$	0
$u = 1.261400 - 0.000967I$ $a = 0.406000 + 0.854735I$ $b = -0.585213 - 0.659972I$	$4.23225 + 4.10830I$	0
$u = 1.216100 + 0.344269I$ $a = 1.008970 - 0.747490I$ $b = -1.044980 + 0.425362I$	$5.58419 + 5.14090I$	0
$u = 1.216100 - 0.344269I$ $a = 1.008970 + 0.747490I$ $b = -1.044980 - 0.425362I$	$5.58419 - 5.14090I$	0
$u = -0.378993 + 1.207040I$ $a = -0.630861 - 0.585109I$ $b = 0.220400 - 0.957766I$	$-7.13322 - 1.96627I$	0
$u = -0.378993 - 1.207040I$ $a = -0.630861 + 0.585109I$ $b = 0.220400 + 0.957766I$	$-7.13322 + 1.96627I$	0
$u = 0.112962 + 1.264650I$ $a = -0.666386 - 0.283252I$ $b = 0.671238 - 1.061380I$	$-2.8885 - 14.0890I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.112962 - 1.264650I$ $a = -0.666386 + 0.283252I$ $b = 0.671238 + 1.061380I$	$-2.8885 + 14.0890I$	0
$u = 0.590390 + 0.428507I$ $a = -1.07153 - 2.07774I$ $b = -0.347921 - 0.341709I$	$-1.76113 + 6.50394I$	0
$u = 0.590390 - 0.428507I$ $a = -1.07153 + 2.07774I$ $b = -0.347921 + 0.341709I$	$-1.76113 - 6.50394I$	0
$u = -0.671776 + 0.274725I$ $a = -0.95599 - 1.51612I$ $b = 0.325869 - 1.181150I$	$-5.25872 + 0.25749I$	0
$u = -0.671776 - 0.274725I$ $a = -0.95599 + 1.51612I$ $b = 0.325869 + 1.181150I$	$-5.25872 - 0.25749I$	0
$u = -1.237890 + 0.385141I$ $a = 2.03915 + 0.74837I$ $b = -0.580553 + 0.959104I$	$3.70830 - 6.48584I$	0
$u = -1.237890 - 0.385141I$ $a = 2.03915 - 0.74837I$ $b = -0.580553 - 0.959104I$	$3.70830 + 6.48584I$	0
$u = -1.288930 + 0.161588I$ $a = 1.37042 + 0.52823I$ $b = -1.099140 - 0.538137I$	$4.26223 - 4.79564I$	0
$u = -1.288930 - 0.161588I$ $a = 1.37042 - 0.52823I$ $b = -1.099140 + 0.538137I$	$4.26223 + 4.79564I$	0
$u = -0.675087 + 0.139909I$ $a = 2.59429 - 0.53834I$ $b = -1.017840 + 0.819221I$	$-0.68170 - 5.71867I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.675087-0.139909I$ $a=\ \ 2.59429+0.53834I$ $b=-1.017840-0.819221I$	$-0.68170+5.71867I$	0
$u=\ \ 0.687793+0.022979I$ $a=\ \ 2.51226+0.38229I$ $b=-0.235478+0.860906I$	$-2.50820-1.52281I$	0
$u=\ \ 0.687793-0.022979I$ $a=\ \ 2.51226-0.38229I$ $b=-0.235478-0.860906I$	$-2.50820+1.52281I$	0
$u=-1.220910+0.493574I$ $a=\ \ 1.81006+0.23637I$ $b=-0.705579+1.180590I$	$3.27495-11.39830I$	0
$u=-1.220910-0.493574I$ $a=\ \ 1.81006-0.23637I$ $b=-0.705579-1.180590I$	$3.27495+11.39830I$	0
$u=-1.264660+0.396776I$ $a=-0.884869-0.933485I$ $b=\ \ 0.948874+0.666518I$	$6.10407-1.93125I$	0
$u=-1.264660-0.396776I$ $a=-0.884869+0.933485I$ $b=\ \ 0.948874-0.666518I$	$6.10407+1.93125I$	0
$u=-1.107120+0.745191I$ $a=-0.378569-0.178163I$ $b=\ \ 0.045965-1.043160I$	$-4.82189-4.66261I$	0
$u=-1.107120-0.745191I$ $a=-0.378569+0.178163I$ $b=\ \ 0.045965+1.043160I$	$-4.82189+4.66261I$	0
$u=\ \ 0.625015+0.194950I$ $a=\ \ 0.103639+0.317972I$ $b=\ \ 0.727362+0.181793I$	$-1.24547-3.75573I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.625015 - 0.194950I$ $a = 0.103639 - 0.317972I$ $b = 0.727362 - 0.181793I$	$-1.24547 + 3.75573I$	0
$u = -0.168439 + 1.336410I$ $a = 0.641041 - 0.295738I$ $b = -0.635267 - 0.984473I$	$0.58060 + 7.47862I$	0
$u = -0.168439 - 1.336410I$ $a = 0.641041 + 0.295738I$ $b = -0.635267 + 0.984473I$	$0.58060 - 7.47862I$	0
$u = 1.253630 + 0.514584I$ $a = -1.90519 + 0.28569I$ $b = 0.762189 + 1.059240I$	$4.86898 + 8.18256I$	0
$u = 1.253630 - 0.514584I$ $a = -1.90519 - 0.28569I$ $b = 0.762189 - 1.059240I$	$4.86898 - 8.18256I$	0
$u = -0.146700 + 0.615497I$ $a = 0.162106 + 0.424960I$ $b = 0.648168 + 0.510438I$	$1.63803 - 1.65210I$	0
$u = -0.146700 - 0.615497I$ $a = 0.162106 - 0.424960I$ $b = 0.648168 - 0.510438I$	$1.63803 + 1.65210I$	0
$u = -1.289210 + 0.501785I$ $a = -0.839544 - 0.772616I$ $b = 0.812654 + 0.773210I$	$5.07984 - 1.66911I$	0
$u = -1.289210 - 0.501785I$ $a = -0.839544 + 0.772616I$ $b = 0.812654 - 0.773210I$	$5.07984 + 1.66911I$	0
$u = 1.347330 + 0.315089I$ $a = 1.61810 + 0.25928I$ $b = -0.769989 - 1.162960I$	$2.30708 + 11.45130I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.347330 - 0.315089I$ $a = 1.61810 - 0.25928I$ $b = -0.769989 + 1.162960I$	$2.30708 - 11.45130I$	0
$u = -0.313636 + 0.528859I$ $a = 1.272530 - 0.601548I$ $b = 0.189522 - 0.081162I$	$0.18631 - 2.24194I$	0
$u = -0.313636 - 0.528859I$ $a = 1.272530 + 0.601548I$ $b = 0.189522 + 0.081162I$	$0.18631 + 2.24194I$	0
$u = 1.242070 + 0.636273I$ $a = -1.73342 + 0.28099I$ $b = 0.762743 + 0.955887I$	$4.52463 + 7.56262I$	0
$u = 1.242070 - 0.636273I$ $a = -1.73342 - 0.28099I$ $b = 0.762743 - 0.955887I$	$4.52463 - 7.56262I$	0
$u = 1.335890 + 0.406350I$ $a = -2.23905 + 0.29473I$ $b = 0.709694 + 0.962754I$	$4.10687 + 9.50700I$	0
$u = 1.335890 - 0.406350I$ $a = -2.23905 - 0.29473I$ $b = 0.709694 - 0.962754I$	$4.10687 - 9.50700I$	0
$u = 1.366680 + 0.291902I$ $a = 0.473709 - 1.279870I$ $b = -0.558902 + 0.745551I$	$4.42120 + 1.91460I$	0
$u = 1.366680 - 0.291902I$ $a = 0.473709 + 1.279870I$ $b = -0.558902 - 0.745551I$	$4.42120 - 1.91460I$	0
$u = -0.587631 + 0.130275I$ $a = -0.39460 + 1.50127I$ $b = 0.516013 + 1.135190I$	$-3.95552 + 8.36986I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.587631-0.130275I$ $a=-0.39460-1.50127I$ $b=\ \ 0.516013-1.135190I$	$-3.95552-8.36986I$	0
$u=-0.376491+0.453124I$ $a=\ \ 2.49048+0.77312I$ $b=-0.823960+0.841560I$	$-0.68753-5.80633I$	0
$u=-0.376491-0.453124I$ $a=\ \ 2.49048-0.77312I$ $b=-0.823960-0.841560I$	$-0.68753+5.80633I$	0
$u=-1.36077+0.40187I$ $a=\ \ 1.005570+0.379327I$ $b=-0.778295-0.315313I$	$0.21672-3.85632I$	0
$u=-1.36077-0.40187I$ $a=\ \ 1.005570-0.379327I$ $b=-0.778295+0.315313I$	$0.21672+3.85632I$	0
$u=-0.475564+0.310681I$ $a=\ \ 0.403310+0.187418I$ $b=-0.488714+0.336833I$	$1.090270-0.492115I$	0
$u=-0.475564-0.310681I$ $a=\ \ 0.403310-0.187418I$ $b=-0.488714-0.336833I$	$1.090270+0.492115I$	0
$u=-1.39057+0.34745I$ $a=-0.88626-1.23693I$ $b=\ \ 0.762472+0.761682I$	$4.73035-3.91494I$	0
$u=-1.39057-0.34745I$ $a=-0.88626+1.23693I$ $b=\ \ 0.762472-0.761682I$	$4.73035+3.91494I$	0
$u=-1.35093+0.52888I$ $a=\ \ 1.001490+0.776419I$ $b=-1.012780-0.583607I$	$2.8779-14.2528I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.35093-0.52888I$ $a=\ \ 1.001490-0.776419I$ $b=-1.012780+0.583607I$	$2.8779+14.2528I$	0
$u=\ \ 1.37969+0.52306I$ $a=-0.911285+0.680132I$ $b=\ \ 0.909116-0.582529I$	$6.11765+8.32238I$	0
$u=\ \ 1.37969-0.52306I$ $a=-0.911285-0.680132I$ $b=\ \ 0.909116+0.582529I$	$6.11765-8.32238I$	0
$u=\ \ 0.450217+0.252513I$ $a=\ \ 0.951234+1.032270I$ $b=-0.469280+1.043250I$	$-0.86356-3.43380I$	0
$u=\ \ 0.450217-0.252513I$ $a=\ \ 0.951234-1.032270I$ $b=-0.469280-1.043250I$	$-0.86356+3.43380I$	0
$u=\ \ 1.48229+0.09678I$ $a=-1.078690+0.461118I$ $b=\ \ 0.766207-0.559300I$	$7.66173-1.07541I$	0
$u=\ \ 1.48229-0.09678I$ $a=-1.078690-0.461118I$ $b=\ \ 0.766207+0.559300I$	$7.66173+1.07541I$	0
$u=-1.48833+0.15690I$ $a=-1.348940+0.205805I$ $b=\ \ 0.627240-1.141720I$	$5.81920-4.18806I$	0
$u=-1.48833-0.15690I$ $a=-1.348940-0.205805I$ $b=\ \ 0.627240+1.141720I$	$5.81920+4.18806I$	0
$u=\ \ 1.37959+0.61981I$ $a=\ \ 1.76958-0.13025I$ $b=-0.750118-1.134090I$	$1.1417+20.6476I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.37959 - 0.61981I$ $a = 1.76958 + 0.13025I$ $b = -0.750118 + 1.134090I$	$1.1417 - 20.6476I$	0
$u = -1.38914 + 0.64053I$ $a = -1.67159 - 0.19228I$ $b = 0.715427 - 1.092640I$	$4.5474 - 14.3132I$	0
$u = -1.38914 - 0.64053I$ $a = -1.67159 + 0.19228I$ $b = 0.715427 + 1.092640I$	$4.5474 + 14.3132I$	0
$u = 1.45269 + 0.48564I$ $a = 1.20931 - 0.73958I$ $b = -0.774728 + 0.675798I$	$0.91984 + 4.83839I$	0
$u = 1.45269 - 0.48564I$ $a = 1.20931 + 0.73958I$ $b = -0.774728 - 0.675798I$	$0.91984 - 4.83839I$	0
$u = 1.47605 + 0.47003I$ $a = 1.58192 - 0.22546I$ $b = -0.663832 - 0.824304I$	$3.26259 - 2.52324I$	0
$u = 1.47605 - 0.47003I$ $a = 1.58192 + 0.22546I$ $b = -0.663832 + 0.824304I$	$3.26259 + 2.52324I$	0
$u = 0.10111 + 1.54862I$ $a = -0.647239 - 0.302119I$ $b = 0.477141 - 0.900262I$	$-6.55188 - 1.91422I$	0
$u = 0.10111 - 1.54862I$ $a = -0.647239 + 0.302119I$ $b = 0.477141 + 0.900262I$	$-6.55188 + 1.91422I$	0
$u = 1.43818 + 0.60356I$ $a = 1.48853 - 0.10057I$ $b = -0.606291 - 1.090940I$	$-1.90960 + 8.94858I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.43818 - 0.60356I$ $a = 1.48853 + 0.10057I$ $b = -0.606291 + 1.090940I$	$-1.90960 - 8.94858I$	0
$u = -1.50211 + 0.44231I$ $a = -1.50280 - 0.09812I$ $b = 0.649658 - 0.961092I$	$6.55512 - 3.95531I$	0
$u = -1.50211 - 0.44231I$ $a = -1.50280 + 0.09812I$ $b = 0.649658 + 0.961092I$	$6.55512 + 3.95531I$	0
$u = -1.56092 + 0.15130I$ $a = 0.594017 + 0.557081I$ $b = -0.238310 - 0.662500I$	$0.65463 - 4.46211I$	0
$u = -1.56092 - 0.15130I$ $a = 0.594017 - 0.557081I$ $b = -0.238310 + 0.662500I$	$0.65463 + 4.46211I$	0
$u = -0.173510 + 0.359360I$ $a = 0.65293 + 3.56191I$ $b = 0.493666 + 0.677282I$	$0.31902 + 3.08507I$	0
$u = -0.173510 - 0.359360I$ $a = 0.65293 - 3.56191I$ $b = 0.493666 - 0.677282I$	$0.31902 - 3.08507I$	0
$u = -1.51352 + 0.62605I$ $a = 1.75001 - 0.10272I$ $b = -0.698604 + 1.009330I$	$-0.08906 - 10.42650I$	0
$u = -1.51352 - 0.62605I$ $a = 1.75001 + 0.10272I$ $b = -0.698604 - 1.009330I$	$-0.08906 + 10.42650I$	0
$u = -1.65216 + 0.35355I$ $a = 0.870363 + 0.627589I$ $b = -0.648517 - 0.881231I$	$3.08556 + 7.61720I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.65216-0.35355I$ $a=\ \ 0.870363-0.627589I$ $b=-0.648517+0.881231I$	$3.08556-7.61720I$	0
$u=\ \ 1.71026+0.21810I$ $a=-0.894554+0.485870I$ $b=\ \ 0.594468-0.708708I$	$7.38222-1.02655I$	0
$u=\ \ 1.71026-0.21810I$ $a=-0.894554-0.485870I$ $b=\ \ 0.594468+0.708708I$	$7.38222+1.02655I$	0
$u=-0.09850+1.80702I$ $a=-1.003410+0.096482I$ $b=\ \ 0.611061+0.868445I$	$-5.35139+2.40163I$	0
$u=-0.09850-1.80702I$ $a=-1.003410-0.096482I$ $b=\ \ 0.611061-0.868445I$	$-5.35139-2.40163I$	0
$u=-0.0254690+0.0037288I$ $a=-15.1691+22.5096I$ $b=\ \ 0.277658+1.164180I$	$-5.23946-0.57060I$	$-1.41308+2.59115I$
$u=-0.0254690-0.0037288I$ $a=-15.1691-22.5096I$ $b=\ \ 0.277658-1.164180I$	$-5.23946+0.57060I$	$-1.41308-2.59115I$

II. $I_2^u = \langle 1.03 \times 10^{49} u^{47} - 3.44 \times 10^{48} u^{46} + \cdots + 1.10 \times 10^{48} b + 1.08 \times 10^{49},\ -1.93 \times 10^{50} u^{47} - 2.47 \times 10^{50} u^{46} + \cdots + 1.44 \times 10^{50} a + 3.78 \times 10^{50},\ u^{48} - 15u^{46} + \cdots - 12u^2 + 1 \rangle$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1.33872u^{47} + 1.71338u^{46} + \cdots + 6.61634u - 2.62118 \\ -9.34907u^{47} + 3.12753u^{46} + \cdots + 25.3985u - 9.86061 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -12.9177u^{47} + 4.92238u^{46} + \cdots + 37.1255u - 19.0838 \\ -3.40215u^{47} + 0.808224u^{46} + \cdots + 10.2804u - 4.51725 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -5.07777u^{47} - 0.512430u^{46} + \cdots + 24.5017u - 4.49473 \\ -0.651115u^{47} - 0.0885318u^{46} + \cdots + 13.7499u - 3.12291 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -16.3198u^{47} + 5.73061u^{46} + \cdots + 47.4059u - 23.6010 \\ -3.40215u^{47} + 0.808224u^{46} + \cdots + 10.2804u - 4.51725 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 20.4402u^{47} - 10.9573u^{46} + \cdots - 37.2550u + 31.0161 \\ 15.3569u^{47} - 8.32374u^{46} + \cdots - 34.4888u + 21.9430 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -16.3489u^{47} + 10.9104u^{46} + \cdots + 10.4758u - 21.8091 \\ -10.5036u^{47} + 6.25010u^{46} + \cdots + 15.6290u - 15.0329 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 23.2301u^{47} - 13.0536u^{46} + \cdots - 67.3382u + 44.7275 \\ 3.84764u^{47} - 6.28352u^{46} + \cdots - 22.1147u + 19.8991 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -18.7376u^{47} + 6.18811u^{46} + \cdots + 55.6441u - 27.9876 \\ -5.78561u^{47} + 1.98873u^{46} + \cdots + 16.1009u - 8.44635 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 64.4088u^{47} - 53.7712u^{46} + \cdots - 176.460u + 149.512$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{48} - 26u^{47} + \cdots - 18u + 1$
c_2	$u^{48} - 2u^{47} + \cdots - 2u + 1$
c_3	$u^{48} - 15u^{46} + \cdots - 12u^2 + 1$
c_4	$u^{48} - 6u^{47} + \cdots - 49u + 7$
c_5	$u^{48} + 14u^{46} + \cdots + 12u^2 + 1$
c_6	$u^{48} + 2u^{47} + \cdots + 2u + 1$
c_7	$u^{48} + 2u^{47} + \cdots + 12u + 1$
c_8	$u^{48} - 2u^{47} + \cdots + 80u + 23$
c_9	$u^{48} - 15u^{46} + \cdots - 12u^2 + 1$
c_{10}	$u^{48} + 6u^{47} + \cdots + 2u + 1$
c_{11}	$u^{48} + 14u^{46} + \cdots + 12u^2 + 1$
c_{12}	$u^{48} - 2u^{47} + \cdots + 10u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{48} - 2y^{47} + \cdots + 30y + 1$
c_2, c_6	$y^{48} + 26y^{47} + \cdots + 18y + 1$
c_3, c_9	$y^{48} - 30y^{47} + \cdots - 24y + 1$
c_4	$y^{48} + 14y^{47} + \cdots + 777y + 49$
c_5, c_{11}	$y^{48} + 28y^{47} + \cdots + 24y + 1$
c_7	$y^{48} + 2y^{47} + \cdots - 48y + 1$
c_8	$y^{48} + 2y^{47} + \cdots + 224y + 529$
c_{10}	$y^{48} - 30y^{47} + \cdots - 6y + 1$
c_{12}	$y^{48} - 18y^{47} + \cdots - 20y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.889825 + 0.518019I$ $a = 1.80815 - 0.10924I$ $b = -0.047282 - 0.753781I$	$-2.73387 + 0.01146I$	0
$u = 0.889825 - 0.518019I$ $a = 1.80815 + 0.10924I$ $b = -0.047282 + 0.753781I$	$-2.73387 - 0.01146I$	0
$u = -0.951875 + 0.138587I$ $a = -0.334638 + 0.760647I$ $b = 0.13084 - 1.63169I$	$-4.43551 - 0.58390I$	$2.0028 + 16.2432I$
$u = -0.951875 - 0.138587I$ $a = -0.334638 - 0.760647I$ $b = 0.13084 + 1.63169I$	$-4.43551 + 0.58390I$	$2.0028 - 16.2432I$
$u = 0.889547 + 0.565104I$ $a = 0.047378 - 1.295340I$ $b = -0.102902 - 0.786800I$	$-2.62756 + 4.18235I$	$0. - 7.36368I$
$u = 0.889547 - 0.565104I$ $a = 0.047378 + 1.295340I$ $b = -0.102902 + 0.786800I$	$-2.62756 - 4.18235I$	$0. + 7.36368I$
$u = -0.965951 + 0.526217I$ $a = -0.958662 + 0.305495I$ $b = -0.121614 - 1.056300I$	$-3.72391 - 3.22895I$	0
$u = -0.965951 - 0.526217I$ $a = -0.958662 - 0.305495I$ $b = -0.121614 + 1.056300I$	$-3.72391 + 3.22895I$	0
$u = 0.856961 + 0.258390I$ $a = 1.51289 + 0.16347I$ $b = -0.164358 - 1.290890I$	$-1.78208 + 1.17282I$	$13.02825 + 0.I$
$u = 0.856961 - 0.258390I$ $a = 1.51289 - 0.16347I$ $b = -0.164358 + 1.290890I$	$-1.78208 - 1.17282I$	$13.02825 + 0.I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.841254+0.305265I$ $a=-0.020362-0.484761I$ $b=\ \ 0.145064-1.222170I$	$-4.60731-0.27605I$	$2.44349+1.94872I$
$u=-0.841254-0.305265I$ $a=-0.020362+0.484761I$ $b=\ \ 0.145064+1.222170I$	$-4.60731+0.27605I$	$2.44349-1.94872I$
$u=\ \ 0.870794+0.122933I$ $a=-2.35243-0.87636I$ $b=\ \ 1.045900+0.603390I$	$-0.06716+6.15392I$	$5.95047-9.91121I$
$u=\ \ 0.870794-0.122933I$ $a=-2.35243+0.87636I$ $b=\ \ 1.045900-0.603390I$	$-0.06716-6.15392I$	$5.95047+9.91121I$
$u=-1.269380+0.108065I$ $a=\ \ 0.026858+0.382069I$ $b=\ \ 0.428326-0.333221I$	$3.93733-3.44130I$	0
$u=-1.269380-0.108065I$ $a=\ \ 0.026858-0.382069I$ $b=\ \ 0.428326+0.333221I$	$3.93733+3.44130I$	0
$u=-0.681125+0.195669I$ $a=\ \ 2.99227-0.06784I$ $b=-0.721916+0.676215I$	$1.09472-3.38207I$	$8.82119+1.92307I$
$u=-0.681125-0.195669I$ $a=\ \ 2.99227+0.06784I$ $b=-0.721916-0.676215I$	$1.09472+3.38207I$	$8.82119-1.92307I$
$u=\ \ 1.306170+0.012158I$ $a=\ \ 0.826767+0.130480I$ $b=-0.633744+0.355811I$	$1.73423-5.27368I$	0
$u=\ \ 1.306170-0.012158I$ $a=\ \ 0.826767-0.130480I$ $b=-0.633744-0.355811I$	$1.73423+5.27368I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.642454 + 0.258028I$ $a = 1.61414 - 2.95477I$ $b = 0.314945 - 0.624169I$	$-2.09836 + 5.55440I$	$-3.59886 - 5.34510I$
$u = 0.642454 - 0.258028I$ $a = 1.61414 + 2.95477I$ $b = 0.314945 + 0.624169I$	$-2.09836 - 5.55440I$	$-3.59886 + 5.34510I$
$u = 0.182364 + 0.665547I$ $a = 0.339016 + 1.300980I$ $b = -0.626389 + 0.880116I$	$0.56138 - 4.50405I$	$2.40712 + 5.40589I$
$u = 0.182364 - 0.665547I$ $a = 0.339016 - 1.300980I$ $b = -0.626389 - 0.880116I$	$0.56138 + 4.50405I$	$2.40712 - 5.40589I$
$u = 0.103711 + 0.656824I$ $a = -0.093319 - 0.197303I$ $b = -0.622867 + 0.875541I$	$0.578464 - 0.377675I$	$4.36687 - 0.40824I$
$u = 0.103711 - 0.656824I$ $a = -0.093319 + 0.197303I$ $b = -0.622867 - 0.875541I$	$0.578464 + 0.377675I$	$4.36687 + 0.40824I$
$u = 1.256880 + 0.450553I$ $a = -2.11207 + 0.39237I$ $b = 0.717849 + 1.019840I$	$3.94516 + 8.69281I$	0
$u = 1.256880 - 0.450553I$ $a = -2.11207 - 0.39237I$ $b = 0.717849 - 1.019840I$	$3.94516 - 8.69281I$	0
$u = -1.297160 + 0.328571I$ $a = -0.686522 - 1.186170I$ $b = 0.761710 + 0.656932I$	$5.02024 - 3.04347I$	0
$u = -1.297160 - 0.328571I$ $a = -0.686522 + 1.186170I$ $b = 0.761710 - 0.656932I$	$5.02024 + 3.04347I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.177810+1.392590I$ $a=-0.753326-0.386516I$ $b=\ \ 0.343078-0.861002I$	$-6.81132-1.46823I$	0
$u=-0.177810-1.392590I$ $a=-0.753326+0.386516I$ $b=\ \ 0.343078+0.861002I$	$-6.81132+1.46823I$	0
$u=-0.581096+0.110194I$ $a=\ \ 1.16401-0.93125I$ $b=\ \ 0.459133-1.103980I$	$-3.99173-8.97524I$	$-0.30215+12.65038I$
$u=-0.581096-0.110194I$ $a=\ \ 1.16401+0.93125I$ $b=\ \ 0.459133+1.103980I$	$-3.99173+8.97524I$	$-0.30215-12.65038I$
$u=\ \ 1.46634+0.20133I$ $a=\ \ 1.25035-0.75962I$ $b=-0.661333+0.589109I$	$2.02213+4.60561I$	0
$u=\ \ 1.46634-0.20133I$ $a=\ \ 1.25035+0.75962I$ $b=-0.661333-0.589109I$	$2.02213-4.60561I$	0
$u=-1.43218+0.42197I$ $a=\ \ 1.78924-0.16787I$ $b=-0.665956+1.046080I$	$0.64064-9.87076I$	0
$u=-1.43218-0.42197I$ $a=\ \ 1.78924+0.16787I$ $b=-0.665956-1.046080I$	$0.64064+9.87076I$	0
$u=-0.354598+0.314584I$ $a=\ \ 0.12357-3.00850I$ $b=-0.383799-0.770145I$	$-0.162415-0.926112I$	$1.309215-0.134615I$
$u=-0.354598-0.314584I$ $a=\ \ 0.12357+3.00850I$ $b=-0.383799+0.770145I$	$-0.162415+0.926112I$	$1.309215+0.134615I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.51867 + 0.20704I$ $a = -1.350890 - 0.161366I$ $b = 0.621394 + 1.105100I$	$5.71350 + 4.03465I$	0
$u = 1.51867 - 0.20704I$ $a = -1.350890 + 0.161366I$ $b = 0.621394 - 1.105100I$	$5.71350 - 4.03465I$	0
$u = 0.348702 + 0.279082I$ $a = -0.927322 + 0.405720I$ $b = -0.401495 - 0.966747I$	$-0.86996 + 4.25965I$	$3.60455 - 8.35046I$
$u = 0.348702 - 0.279082I$ $a = -0.927322 - 0.405720I$ $b = -0.401495 + 0.966747I$	$-0.86996 - 4.25965I$	$3.60455 + 8.35046I$
$u = -1.68971 + 0.11577I$ $a = -0.941860 - 0.410884I$ $b = 0.573061 + 0.623889I$	$7.31004 + 0.79160I$	0
$u = -1.68971 - 0.11577I$ $a = -0.941860 + 0.410884I$ $b = 0.573061 - 0.623889I$	$7.31004 - 0.79160I$	0
$u = -0.09028 + 1.82936I$ $a = -0.963237 + 0.112557I$ $b = 0.612358 + 0.865347I$	$-5.22636 + 2.40786I$	0
$u = -0.09028 - 1.82936I$ $a = -0.963237 - 0.112557I$ $b = 0.612358 - 0.865347I$	$-5.22636 - 2.40786I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{48}-26u^{47}+\cdots-18u+1)$ $\cdot(u^{177}+73u^{176}+\cdots+11276631u-1297321)$
c_2	$(u^{48}-2u^{47}+\cdots-2u+1)(u^{177}-3u^{176}+\cdots-6887u-1139)$
c_3	$(u^{48}-15u^{46}+\cdots-12u^2+1)(u^{177}+u^{176}+\cdots+24611u-319)$
c_4	$(u^{48}-6u^{47}+\cdots-49u+7)$ $\cdot(u^{177}-5u^{176}+\cdots+18338760u-3131800)$
c_5	$(u^{48}+14u^{46}+\cdots+12u^2+1)(u^{177}+u^{176}+\cdots+4629u-4757)$
c_6	$(u^{48}+2u^{47}+\cdots+2u+1)(u^{177}-3u^{176}+\cdots-6887u-1139)$
c_7	$(u^{48}+2u^{47}+\cdots+12u+1)(u^{177}+3u^{176}+\cdots-5951521u-528551)$
c_8	$(u^{48}-2u^{47}+\cdots+80u+23)$ $\cdot(u^{177}-3u^{176}+\cdots+104415268440u-9288287800)$
c_9	$(u^{48}-15u^{46}+\cdots-12u^2+1)(u^{177}+u^{176}+\cdots+24611u-319)$
c_{10}	$(u^{48}+6u^{47}+\cdots+2u+1)(u^{177}-15u^{176}+\cdots+29069u-1681)$
c_{11}	$(u^{48}+14u^{46}+\cdots+12u^2+1)(u^{177}+u^{176}+\cdots+4629u-4757)$
c_{12}	$(u^{48}-2u^{47}+\cdots+10u+1)(u^{177}+17u^{176}+\cdots+483u+11)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{48} - 2y^{47} + \cdots + 30y + 1)$ $\cdot (y^{177} + 69y^{176} + \cdots - 147038796812525y - 1683041777041)$
c_2, c_6	$(y^{48} + 26y^{47} + \cdots + 18y + 1)$ $\cdot (y^{177} + 73y^{176} + \cdots + 11276631y - 1297321)$
c_3, c_9	$(y^{48} - 30y^{47} + \cdots - 24y + 1)$ $\cdot (y^{177} - 115y^{176} + \cdots + 299263541y - 101761)$
c_4	$(y^{48} + 14y^{47} + \cdots + 777y + 49)$ $\cdot (y^{177} - 7y^{176} + \cdots - 1006072150632800y - 9808171240000)$
c_5, c_{11}	$(y^{48} + 28y^{47} + \cdots + 24y + 1)$ $\cdot (y^{177} + 103y^{176} + \cdots - 778566563y - 22629049)$
c_7	$(y^{48} + 2y^{47} + \cdots - 48y + 1)$ $\cdot (y^{177} - 31y^{176} + \cdots + 18076638788669y - 279366159601)$
c_8	$(y^{48} + 2y^{47} + \cdots + 224y + 529)$ $\cdot (y^{177} - 47y^{176} + \cdots + 4.10 \times 10^{21}y - 8.63 \times 10^{19})$
c_{10}	$(y^{48} - 30y^{47} + \cdots - 6y + 1)$ $\cdot (y^{177} - 19y^{176} + \cdots - 342723961y - 2825761)$
c_{12}	$(y^{48} - 18y^{47} + \cdots - 20y + 1)(y^{177} - 15y^{176} + \cdots + 3389y - 121)$