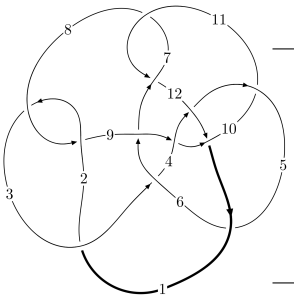
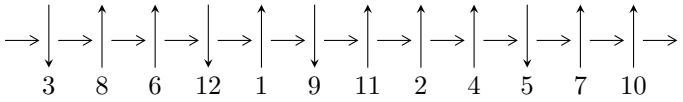
$12a_{0710}$ $(K12a_{0710})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 2.03244 \times 10^{803} u^{198} - 3.73750 \times 10^{803} u^{197} + \cdots + 2.91199 \times 10^{803} b - 7.79066 \times 10^{806},$$
$$5.88369 \times 10^{805} u^{198} - 4.46985 \times 10^{805} u^{197} + \cdots + 1.45396 \times 10^{807} a - 2.49046 \times 10^{808},$$
$$u^{199} - 2u^{198} + \cdots + 2292u + 4993 \rangle$$
$$I_2^u = \langle -4.40584 \times 10^{28} u^{49} + 2.00303 \times 10^{29} u^{48} + \cdots + 4.27060 \times 10^{28} b + 7.48072 \times 10^{28},$$
$$1.07238 \times 10^{28} u^{49} - 2.47638 \times 10^{28} u^{48} + \cdots + 4.27060 \times 10^{28} a - 1.90703 \times 10^{28},\ u^{50} - 3u^{49} + \cdots - 5u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 249 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. $\boldsymbol{I_1^u = \langle 2.03 \times 10^{803} u^{198} - 3.74 \times 10^{803} u^{197} + \cdots + 2.91 \times 10^{803} b - 7.79 \times 10^{806},\ 5.88 \times 10^{805} u^{198} - 4.47 \times 10^{805} u^{197} + \cdots + 1.45 \times 10^{807} a - 2.49 \times 10^{808},\ u^{199} - 2u^{198} + \cdots + 2292u + 4993 \rangle}$

(i) Arc colorings

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

$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

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

$$a_{11} = \begin{pmatrix} -0.0404668u^{198} + 0.0307427u^{197} + \cdots - 390.332u + 17.1288 \\ -0.697956u^{198} + 1.28349u^{197} + \cdots + 923.373u + 2675.37 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.223072u^{198} - 0.613083u^{197} + \cdots - 569.312u - 1221.06 \\ 0.232181u^{198} - 0.752237u^{197} + \cdots - 3069.01u - 2189.90 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.172321u^{198} - 0.596347u^{197} + \cdots - 840.099u - 1519.71 \\ -0.187797u^{198} + 0.0761186u^{197} + \cdots - 408.248u + 798.875 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.0469788u^{198} - 0.343566u^{197} + \cdots - 1400.00u - 910.198 \\ -0.0305804u^{198} - 0.248436u^{197} + \cdots - 1931.16u - 528.014 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.220317u^{198} - 0.475003u^{197} + \cdots - 694.057u - 673.435 \\ -0.120181u^{198} + 0.109173u^{197} + \cdots - 1668.53u - 117.751 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.296790u^{198} - 0.741474u^{197} + \cdots - 573.786u - 1612.16 \\ 0.188571u^{198} - 0.771376u^{197} + \cdots - 3411.19u - 2396.72 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.205050u^{198} - 0.599328u^{197} + \cdots - 241.616u - 1720.11 \\ 0.0571877u^{198} - 0.344279u^{197} + \cdots + 108.054u + 287.925 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.329770u^{198} + 0.827580u^{197} + \cdots + 3619.10u + 1349.38$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{199} + 88u^{198} + \cdots - 898659484u - 24930049$
c_2, c_8	$u^{199} + 2u^{198} + \cdots + 2292u - 4993$
c_3	$16(16u^{199} - 404u^{198} + \cdots + 3748743u - 588397)$
c_4	$4(4u^{199} + 34u^{198} + \cdots + 1315u - 115)$
c_5	$u^{199} + 3u^{198} + \cdots + 150597109870u - 13651828868$
c_6	$u^{199} - 3u^{198} + \cdots + 22334708u - 1049936$
c_7, c_{11}	$4(4u^{199} + 6u^{198} + \cdots - u - 1)$
c_9	$u^{199} + 2u^{198} + \cdots + 15945814u - 22455076$
c_{10}	$4(4u^{199} + 6u^{198} + \cdots + 22772u - 4007)$
c_{12}	$u^{199} + 15u^{198} + \cdots + 8u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{199}+64y^{198}+\cdots-36054882912463804y-621507343142401$
c_2, c_8	$y^{199}+88y^{198}+\cdots-898659484y-24930049$
c_3	256 $\cdot(256y^{199}-10480y^{198}+\cdots+23809268261933y-346211029609)$
c_4	$16(16y^{199}+436y^{198}+\cdots-851375y-13225)$
c_5	$y^{199}-83y^{198}+\cdots+9.36\times10^{21}y-1.86\times10^{20}$
c_6	$y^{199}+27y^{198}+\cdots-297526789893840y-1102365604096$
c_7, c_{11}	$16(16y^{199}+1668y^{198}+\cdots-53y-1)$
c_9	$y^{199}-44y^{198}+\cdots+9475054102446396y-504230438165776$
c_{10}	$16(16y^{199}+580y^{198}+\cdots-1.76406\times10^{9}y-1.60560\times10^{7})$
c_{12}	$y^{199}-17y^{198}+\cdots+180y-1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.552721 + 0.832838I$ $a = -0.707208 - 0.239482I$ $b = -3.65224 - 1.66538I$	$3.88301 + 5.91523I$	0
$u = 0.552721 - 0.832838I$ $a = -0.707208 + 0.239482I$ $b = -3.65224 + 1.66538I$	$3.88301 - 5.91523I$	0
$u = -0.859299 + 0.508789I$ $a = 1.198550 + 0.167827I$ $b = 1.60331 - 0.95658I$	$6.00377 + 9.14533I$	0
$u = -0.859299 - 0.508789I$ $a = 1.198550 - 0.167827I$ $b = 1.60331 + 0.95658I$	$6.00377 - 9.14533I$	0
$u = -0.909701 + 0.421198I$ $a = 0.043181 + 1.173930I$ $b = 0.825858 - 0.036672I$	$3.54032 + 6.30441I$	0
$u = -0.909701 - 0.421198I$ $a = 0.043181 - 1.173930I$ $b = 0.825858 + 0.036672I$	$3.54032 - 6.30441I$	0
$u = -0.219731 + 0.970719I$ $a = -0.110343 + 0.397195I$ $b = 0.470574 + 0.095430I$	$-1.35070 - 2.66581I$	0
$u = -0.219731 - 0.970719I$ $a = -0.110343 - 0.397195I$ $b = 0.470574 - 0.095430I$	$-1.35070 + 2.66581I$	0
$u = 0.209168 + 0.983452I$ $a = 0.970077 + 0.702114I$ $b = 0.542646 + 0.073106I$	$-3.79293 - 0.98478I$	0
$u = 0.209168 - 0.983452I$ $a = 0.970077 - 0.702114I$ $b = 0.542646 - 0.073106I$	$-3.79293 + 0.98478I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.411665+0.902265I$ $a=\ \ 0.993461-0.889340I$ $b=\ \ 1.085420-0.064796I$	$-3.21661-2.55341I$	0
$u=-0.411665-0.902265I$ $a=\ \ 0.993461+0.889340I$ $b=\ \ 1.085420+0.064796I$	$-3.21661+2.55341I$	0
$u=-0.939454+0.388540I$ $a=\ \ 0.122412+1.109700I$ $b=\ \ 0.943407+0.293876I$	$3.69845+2.35980I$	0
$u=-0.939454-0.388540I$ $a=\ \ 0.122412-1.109700I$ $b=\ \ 0.943407-0.293876I$	$3.69845-2.35980I$	0
$u=-0.513877+0.837809I$ $a=\ \ 1.51046-0.33107I$ $b=\ \ 1.62046-1.38352I$	$1.10678-1.52154I$	0
$u=-0.513877-0.837809I$ $a=\ \ 1.51046+0.33107I$ $b=\ \ 1.62046+1.38352I$	$1.10678+1.52154I$	0
$u=\ \ 0.780482+0.653839I$ $a=-0.792194+0.028929I$ $b=-1.126410-0.386667I$	$5.07245+2.29003I$	0
$u=\ \ 0.780482-0.653839I$ $a=-0.792194-0.028929I$ $b=-1.126410+0.386667I$	$5.07245-2.29003I$	0
$u=-0.544986+0.867614I$ $a=-1.54890+0.51501I$ $b=-1.03823+1.55991I$	$1.32727-2.02418I$	0
$u=-0.544986-0.867614I$ $a=-1.54890-0.51501I$ $b=-1.03823-1.55991I$	$1.32727+2.02418I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.525672+0.881827I$ $a=\ \ 0.716924-1.213420I$ $b=-0.657664-0.158631I$	$0.94984-2.68578I$	0
$u=-0.525672-0.881827I$ $a=\ \ 0.716924+1.213420I$ $b=-0.657664+0.158631I$	$0.94984+2.68578I$	0
$u=\ \ 0.533398+0.805161I$ $a=-0.588862+1.014380I$ $b=-1.78743+0.27356I$	$4.66561+1.62448I$	0
$u=\ \ 0.533398-0.805161I$ $a=-0.588862-1.014380I$ $b=-1.78743-0.27356I$	$4.66561-1.62448I$	0
$u=\ \ 0.028300+1.035610I$ $a=-0.970207+0.252432I$ $b=-2.12131-0.10883I$	$-3.11609+5.16977I$	0
$u=\ \ 0.028300-1.035610I$ $a=-0.970207-0.252432I$ $b=-2.12131+0.10883I$	$-3.11609-5.16977I$	0
$u=\ \ 0.861727+0.432030I$ $a=-0.352247+0.742005I$ $b=-1.003830-0.946135I$	$5.69593+5.24594I$	0
$u=\ \ 0.861727-0.432030I$ $a=-0.352247-0.742005I$ $b=-1.003830+0.946135I$	$5.69593-5.24594I$	0
$u=-0.687656+0.782929I$ $a=\ \ 0.504042-0.954478I$ $b=-2.31312-1.24192I$	$2.11943+5.39021I$	0
$u=-0.687656-0.782929I$ $a=\ \ 0.504042+0.954478I$ $b=-2.31312+1.24192I$	$2.11943-5.39021I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.504323 + 0.814252I$ $a = 0.758123 + 0.178614I$ $b = 3.89710 + 2.22602I$	$3.59304 - 2.50085I$	0
$u = 0.504323 - 0.814252I$ $a = 0.758123 - 0.178614I$ $b = 3.89710 - 2.22602I$	$3.59304 + 2.50085I$	0
$u = -0.590566 + 0.745221I$ $a = 0.537097 - 1.151850I$ $b = -1.34228 + 0.70743I$	$1.83110 + 1.80888I$	0
$u = -0.590566 - 0.745221I$ $a = 0.537097 + 1.151850I$ $b = -1.34228 - 0.70743I$	$1.83110 - 1.80888I$	0
$u = 0.711519 + 0.629426I$ $a = -0.126482 - 0.390596I$ $b = 1.083500 + 0.193088I$	$1.80013 - 2.21904I$	0
$u = 0.711519 - 0.629426I$ $a = -0.126482 + 0.390596I$ $b = 1.083500 - 0.193088I$	$1.80013 + 2.21904I$	0
$u = 0.835327 + 0.641585I$ $a = -0.606354 + 0.029456I$ $b = -0.670212 - 0.427476I$	$5.41276 - 1.88806I$	0
$u = 0.835327 - 0.641585I$ $a = -0.606354 - 0.029456I$ $b = -0.670212 + 0.427476I$	$5.41276 + 1.88806I$	0
$u = -0.853640 + 0.617830I$ $a = 0.206766 - 1.105280I$ $b = -1.098760 + 0.350039I$	$3.06999 + 5.73445I$	0
$u = -0.853640 - 0.617830I$ $a = 0.206766 + 1.105280I$ $b = -1.098760 - 0.350039I$	$3.06999 - 5.73445I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.599592 + 0.873142I$ $a = -0.261519 - 0.661759I$ $b = 1.58241 + 1.69433I$	$3.71461 - 1.34360I$	0
$u = 0.599592 - 0.873142I$ $a = -0.261519 + 0.661759I$ $b = 1.58241 - 1.69433I$	$3.71461 + 1.34360I$	0
$u = -0.455042 + 0.822303I$ $a = -1.018300 - 0.337505I$ $b = -0.81850 + 1.27127I$	$0.38168 - 1.36315I$	0
$u = -0.455042 - 0.822303I$ $a = -1.018300 + 0.337505I$ $b = -0.81850 - 1.27127I$	$0.38168 + 1.36315I$	0
$u = 0.535236 + 0.915221I$ $a = 0.267930 + 0.632978I$ $b = -2.24908 - 1.78020I$	$3.22414 + 6.70082I$	0
$u = 0.535236 - 0.915221I$ $a = 0.267930 - 0.632978I$ $b = -2.24908 + 1.78020I$	$3.22414 - 6.70082I$	0
$u = 0.083860 + 1.059590I$ $a = 0.656271 - 0.088087I$ $b = 0.751368 - 0.692670I$	$-2.95579 - 1.54889I$	0
$u = 0.083860 - 1.059590I$ $a = 0.656271 + 0.088087I$ $b = 0.751368 + 0.692670I$	$-2.95579 + 1.54889I$	0
$u = -0.517114 + 0.929573I$ $a = 0.137680 + 0.731179I$ $b = 1.013010 - 0.048566I$	$-0.10041 - 2.60950I$	0
$u = -0.517114 - 0.929573I$ $a = 0.137680 - 0.731179I$ $b = 1.013010 + 0.048566I$	$-0.10041 + 2.60950I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.485213+0.797824I$ $a=-0.44572+1.76061I$ $b=\ \ 1.092080+0.720278I$	$1.57885-2.28038I$	0
$u=-0.485213-0.797824I$ $a=-0.44572-1.76061I$ $b=\ \ 1.092080-0.720278I$	$1.57885+2.28038I$	0
$u=-0.526510+0.931329I$ $a=-1.160450+0.002264I$ $b=-1.57546+2.33091I$	$-2.45135-2.23353I$	0
$u=-0.526510-0.931329I$ $a=-1.160450-0.002264I$ $b=-1.57546-2.33091I$	$-2.45135+2.23353I$	0
$u=\ \ 0.951196+0.492949I$ $a=\ \ 0.138621-1.360050I$ $b=\ \ 1.73332-0.29766I$	$2.64993-7.11273I$	0
$u=\ \ 0.951196-0.492949I$ $a=\ \ 0.138621+1.360050I$ $b=\ \ 1.73332+0.29766I$	$2.64993+7.11273I$	0
$u=\ \ 0.027769+1.071250I$ $a=\ \ 0.441456+0.565178I$ $b=\ \ 0.253522-0.462219I$	$-3.45246-1.50217I$	0
$u=\ \ 0.027769-1.071250I$ $a=\ \ 0.441456-0.565178I$ $b=\ \ 0.253522+0.462219I$	$-3.45246+1.50217I$	0
$u=\ \ 0.964213+0.495822I$ $a=-0.072745+1.296260I$ $b=-1.52567+0.23030I$	$3.5941-15.6636I$	0
$u=\ \ 0.964213-0.495822I$ $a=-0.072745-1.296260I$ $b=-1.52567-0.23030I$	$3.5941+15.6636I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.609676 + 0.680554I$ $a = 0.29244 + 1.55115I$ $b = -1.39864 + 0.42067I$	$1.17478 - 7.10231I$	0
$u = 0.609676 - 0.680554I$ $a = 0.29244 - 1.55115I$ $b = -1.39864 - 0.42067I$	$1.17478 + 7.10231I$	0
$u = -0.286690 + 0.862611I$ $a = 1.273120 - 0.166901I$ $b = 0.706388 + 0.062995I$	$-2.95079 - 0.53968I$	0
$u = -0.286690 - 0.862611I$ $a = 1.273120 + 0.166901I$ $b = 0.706388 - 0.062995I$	$-2.95079 + 0.53968I$	0
$u = -0.294433 + 0.853854I$ $a = -1.081670 + 0.667421I$ $b = -1.72673 + 0.92493I$	$-0.62344 + 1.91959I$	0
$u = -0.294433 - 0.853854I$ $a = -1.081670 - 0.667421I$ $b = -1.72673 - 0.92493I$	$-0.62344 - 1.91959I$	0
$u = 0.616988 + 0.906942I$ $a = 0.506013 - 0.546841I$ $b = 0.668470 + 1.089890I$	$4.21132 + 2.90379I$	0
$u = 0.616988 - 0.906942I$ $a = 0.506013 + 0.546841I$ $b = 0.668470 - 1.089890I$	$4.21132 - 2.90379I$	0
$u = 0.809648 + 0.743419I$ $a = 0.271805 - 0.128087I$ $b = 0.342796 + 0.556975I$	$5.22932 - 1.64749I$	0
$u = 0.809648 - 0.743419I$ $a = 0.271805 + 0.128087I$ $b = 0.342796 - 0.556975I$	$5.22932 + 1.64749I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.696430 + 0.853455I$ $a = 0.218178 + 0.199090I$ $b = -0.96838 + 1.23201I$	$4.52346 + 2.67277I$	0
$u = 0.696430 - 0.853455I$ $a = 0.218178 - 0.199090I$ $b = -0.96838 - 1.23201I$	$4.52346 - 2.67277I$	0
$u = 0.814341 + 0.745485I$ $a = 0.295329 + 0.024704I$ $b = 0.163557 + 0.758573I$	$5.22666 - 1.64935I$	0
$u = 0.814341 - 0.745485I$ $a = 0.295329 - 0.024704I$ $b = 0.163557 - 0.758573I$	$5.22666 + 1.64935I$	0
$u = -0.495181 + 0.746661I$ $a = -0.513655 + 1.028400I$ $b = 1.61551 + 0.48112I$	$-1.85131 - 1.95871I$	0
$u = -0.495181 - 0.746661I$ $a = -0.513655 - 1.028400I$ $b = 1.61551 - 0.48112I$	$-1.85131 + 1.95871I$	0
$u = -0.588245 + 0.936781I$ $a = 1.134990 - 0.168436I$ $b = 2.47747 - 1.84530I$	$1.22366 - 6.49641I$	0
$u = -0.588245 - 0.936781I$ $a = 1.134990 + 0.168436I$ $b = 2.47747 + 1.84530I$	$1.22366 + 6.49641I$	0
$u = -0.824299 + 0.342539I$ $a = -1.67735 - 0.14115I$ $b = -2.18915 + 0.93497I$	$4.98292 - 0.46871I$	0
$u = -0.824299 - 0.342539I$ $a = -1.67735 + 0.14115I$ $b = -2.18915 - 0.93497I$	$4.98292 + 0.46871I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.582020 + 0.942601I$ $a = 0.384392 - 0.515783I$ $b = 0.504040 - 0.161997I$	$0.49477 + 7.04332I$	0
$u = 0.582020 - 0.942601I$ $a = 0.384392 + 0.515783I$ $b = 0.504040 + 0.161997I$	$0.49477 - 7.04332I$	0
$u = 0.520046 + 0.987254I$ $a = -1.092230 + 0.167037I$ $b = -1.87984 - 1.87464I$	$-2.11571 + 6.94267I$	0
$u = 0.520046 - 0.987254I$ $a = -1.092230 - 0.167037I$ $b = -1.87984 + 1.87464I$	$-2.11571 - 6.94267I$	0
$u = -0.933475 + 0.612558I$ $a = -0.990125 + 0.519995I$ $b = -0.54385 + 1.56565I$	$3.37204 - 1.81618I$	0
$u = -0.933475 - 0.612558I$ $a = -0.990125 - 0.519995I$ $b = -0.54385 - 1.56565I$	$3.37204 + 1.81618I$	0
$u = -0.655283 + 0.913091I$ $a = 0.997677 - 0.196228I$ $b = 0.43077 - 3.17451I$	$1.71629 - 10.57650I$	0
$u = -0.655283 - 0.913091I$ $a = 0.997677 + 0.196228I$ $b = 0.43077 + 3.17451I$	$1.71629 + 10.57650I$	0
$u = -0.761353 + 0.827622I$ $a = -0.896843 + 0.319419I$ $b = -0.14000 + 2.07036I$	$2.52975 - 2.31467I$	0
$u = -0.761353 - 0.827622I$ $a = -0.896843 - 0.319419I$ $b = -0.14000 - 2.07036I$	$2.52975 + 2.31467I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.220520 + 0.846361I$ $a = -1.37439 - 1.06128I$ $b = -0.386375 - 0.775664I$	$-2.07111 - 7.03742I$	0
$u = 0.220520 - 0.846361I$ $a = -1.37439 + 1.06128I$ $b = -0.386375 + 0.775664I$	$-2.07111 + 7.03742I$	0
$u = 0.404176 + 0.771277I$ $a = -0.355125 - 1.128450I$ $b = 1.82332 + 0.25939I$	$-1.16154 - 3.10104I$	0
$u = 0.404176 - 0.771277I$ $a = -0.355125 + 1.128450I$ $b = 1.82332 - 0.25939I$	$-1.16154 + 3.10104I$	0
$u = -0.841051 + 0.205471I$ $a = -0.735433 + 0.952701I$ $b = -0.956600 + 0.840916I$	$0.073059 - 0.309953I$	0
$u = -0.841051 - 0.205471I$ $a = -0.735433 - 0.952701I$ $b = -0.956600 - 0.840916I$	$0.073059 + 0.309953I$	0
$u = 0.598849 + 0.966089I$ $a = 1.384880 - 0.086581I$ $b = 1.78441 + 1.86549I$	$0.30124 + 11.89580I$	0
$u = 0.598849 - 0.966089I$ $a = 1.384880 + 0.086581I$ $b = 1.78441 - 1.86549I$	$0.30124 - 11.89580I$	0
$u = 0.569206 + 0.999185I$ $a = 0.328692 - 0.889754I$ $b = 1.100760 + 0.794621I$	$4.10080 + 2.86091I$	0
$u = 0.569206 - 0.999185I$ $a = 0.328692 + 0.889754I$ $b = 1.100760 - 0.794621I$	$4.10080 - 2.86091I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.739260+0.412576I$		
$a=$	$0.446779-0.845840I$	$5.32565-3.10952I$	0
$b=$	$0.79140+1.24484I$		
$u=$	$0.739260-0.412576I$		
$a=$	$0.446779+0.845840I$	$5.32565+3.10952I$	0
$b=$	$0.79140-1.24484I$		
$u=$	$0.917720+0.699939I$		
$a=$	$0.571916+0.164227I$	$2.12588-1.68509I$	0
$b=$	$1.16784+0.90482I$		
$u=$	$0.917720-0.699939I$		
$a=$	$0.571916-0.164227I$	$2.12588+1.68509I$	0
$b=$	$1.16784-0.90482I$		
$u=$	$-0.784875+0.874705I$		
$a=$	$-0.497628+0.794673I$	$2.40083-3.48233I$	0
$b=$	$1.42820+1.25414I$		
$u=$	$-0.784875-0.874705I$		
$a=$	$-0.497628-0.794673I$	$2.40083+3.48233I$	0
$b=$	$1.42820-1.25414I$		
$u=$	$-0.538827+1.051330I$		
$a=$	$-1.060960+0.081081I$	$-2.65080-11.31910I$	0
$b=$	$-2.54662+0.95970I$		
$u=$	$-0.538827-1.051330I$		
$a=$	$-1.060960-0.081081I$	$-2.65080+11.31910I$	0
$b=$	$-2.54662-0.95970I$		
$u=$	$-0.293397+1.146480I$		
$a=$	$0.757551-0.505259I$	$-4.26311+4.12666I$	0
$b=$	$1.33495-0.61524I$		
$u=$	$-0.293397-1.146480I$		
$a=$	$0.757551+0.505259I$	$-4.26311-4.12666I$	0
$b=$	$1.33495+0.61524I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.009279+1.183910I$ $a=-0.146185-0.890887I$ $b=-0.573264+0.657965I$	$-0.14075+7.22753I$	0
$u=-0.009279-1.183910I$ $a=-0.146185+0.890887I$ $b=-0.573264-0.657965I$	$-0.14075-7.22753I$	0
$u=0.522350+0.624628I$ $a=-0.779489+0.402598I$ $b=0.083540-0.329967I$	$1.37927-2.46115I$	0
$u=0.522350-0.624628I$ $a=-0.779489-0.402598I$ $b=0.083540+0.329967I$	$1.37927+2.46115I$	0
$u=-1.039210+0.592366I$ $a=0.832652-0.537920I$ $b=0.79162-1.29319I$	$4.00572-9.87173I$	0
$u=-1.039210-0.592366I$ $a=0.832652+0.537920I$ $b=0.79162+1.29319I$	$4.00572+9.87173I$	0
$u=0.254360+1.170240I$ $a=0.830588+0.449444I$ $b=1.128650-0.096127I$	$-4.56030+0.17190I$	0
$u=0.254360-1.170240I$ $a=0.830588-0.449444I$ $b=1.128650+0.096127I$	$-4.56030-0.17190I$	0
$u=0.655011+1.007100I$ $a=-0.289132-0.095642I$ $b=-0.61161-1.33924I$	$0.68400+7.48746I$	0
$u=0.655011-1.007100I$ $a=-0.289132+0.095642I$ $b=-0.61161+1.33924I$	$0.68400-7.48746I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.529095 + 1.083160I$ $a = 1.030370 + 0.416396I$ $b = 1.16557 + 0.88999I$	$-6.55102 + 3.82090I$	0
$u = 0.529095 - 1.083160I$ $a = 1.030370 - 0.416396I$ $b = 1.16557 - 0.88999I$	$-6.55102 - 3.82090I$	0
$u = -1.074230 + 0.551701I$ $a = 0.026070 - 0.939272I$ $b = -1.254790 - 0.052662I$	$0.62560 + 5.63247I$	0
$u = -1.074230 - 0.551701I$ $a = 0.026070 + 0.939272I$ $b = -1.254790 + 0.052662I$	$0.62560 - 5.63247I$	0
$u = 0.527974 + 1.092220I$ $a = -1.263400 - 0.445047I$ $b = -0.83574 - 1.33666I$	$-4.48001 + 10.11550I$	0
$u = 0.527974 - 1.092220I$ $a = -1.263400 + 0.445047I$ $b = -0.83574 + 1.33666I$	$-4.48001 - 10.11550I$	0
$u = 0.737902 + 0.965420I$ $a = -0.342947 + 0.238554I$ $b = -0.820925 - 0.297078I$	$4.53505 + 7.44392I$	0
$u = 0.737902 - 0.965420I$ $a = -0.342947 - 0.238554I$ $b = -0.820925 + 0.297078I$	$4.53505 - 7.44392I$	0
$u = 0.544751 + 1.088880I$ $a = -1.035310 - 0.007293I$ $b = -1.89447 - 1.62515I$	$-2.62169 + 7.53054I$	0
$u = 0.544751 - 1.088880I$ $a = -1.035310 + 0.007293I$ $b = -1.89447 + 1.62515I$	$-2.62169 - 7.53054I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.229079 + 1.196750I$ $a = -1.008010 - 0.054354I$ $b = -1.24917 - 0.89773I$	$-8.45925 + 3.85668I$	0
$u = 0.229079 - 1.196750I$ $a = -1.008010 + 0.054354I$ $b = -1.24917 + 0.89773I$	$-8.45925 - 3.85668I$	0
$u = 0.245053 + 1.199130I$ $a = 1.217650 + 0.161296I$ $b = 0.765966 + 0.984443I$	$-6.33151 - 2.29076I$	0
$u = 0.245053 - 1.199130I$ $a = 1.217650 - 0.161296I$ $b = 0.765966 - 0.984443I$	$-6.33151 + 2.29076I$	0
$u = 0.690509 + 1.013290I$ $a = 0.271550 - 0.438017I$ $b = 0.636320 + 0.396799I$	$4.27919 + 7.56997I$	0
$u = 0.690509 - 1.013290I$ $a = 0.271550 + 0.438017I$ $b = 0.636320 - 0.396799I$	$4.27919 - 7.56997I$	0
$u = 0.741818 + 0.983769I$ $a = 0.037784 + 0.174240I$ $b = -0.592605 + 0.288360I$	$4.49660 + 7.48595I$	0
$u = 0.741818 - 0.983769I$ $a = 0.037784 - 0.174240I$ $b = -0.592605 - 0.288360I$	$4.49660 - 7.48595I$	0
$u = 0.745612 + 0.162696I$ $a = 0.31661 - 1.39953I$ $b = 1.056250 - 0.110044I$	$-0.22597 - 3.00280I$	0
$u = 0.745612 - 0.162696I$ $a = 0.31661 + 1.39953I$ $b = 1.056250 + 0.110044I$	$-0.22597 + 3.00280I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.524564+1.120190I$ $a=-0.740080+0.614087I$ $b=-0.109241+0.273454I$	$-2.70133-4.49700I$	0
$u=-0.524564-1.120190I$ $a=-0.740080-0.614087I$ $b=-0.109241-0.273454I$	$-2.70133+4.49700I$	0
$u=\ \ 0.722179+0.179434I$ $a=-0.30603-1.88693I$ $b=\ \ 0.047198-1.164200I$	$-1.98545-5.59438I$	0
$u=\ \ 0.722179-0.179434I$ $a=-0.30603+1.88693I$ $b=\ \ 0.047198+1.164200I$	$-1.98545+5.59438I$	0
$u=\ \ 0.712951+1.045150I$ $a=-0.059738+0.501129I$ $b=-1.100750-0.494232I$	$0.98495+7.66890I$	0
$u=\ \ 0.712951-1.045150I$ $a=-0.059738-0.501129I$ $b=-1.100750+0.494232I$	$0.98495-7.66890I$	0
$u=-0.695446+1.059950I$ $a=\ \ 0.965310-0.167118I$ $b=\ \ 2.14614-1.61580I$	$1.69775-11.51090I$	0
$u=-0.695446-1.059950I$ $a=\ \ 0.965310+0.167118I$ $b=\ \ 2.14614+1.61580I$	$1.69775+11.51090I$	0
$u=-0.159004+1.268580I$ $a=\ \ 0.683536-0.261963I$ $b=\ \ 0.661541-0.087246I$	$-2.09823-0.94747I$	0
$u=-0.159004-1.268580I$ $a=\ \ 0.683536+0.261963I$ $b=\ \ 0.661541+0.087246I$	$-2.09823+0.94747I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.666380+1.098940I$ $a=-0.189634-0.998235I$ $b=-1.75603+0.10740I$	$4.2177-14.8123I$	0
$u=-0.666380-1.098940I$ $a=-0.189634+0.998235I$ $b=-1.75603-0.10740I$	$4.2177+14.8123I$	0
$u=-0.731523+1.061850I$ $a=-0.390040+0.771927I$ $b=\ \ 0.940753+0.970240I$	$1.99011-4.26775I$	0
$u=-0.731523-1.061850I$ $a=-0.390040-0.771927I$ $b=\ \ 0.940753-0.970240I$	$1.99011+4.26775I$	0
$u=-0.303142+0.639519I$ $a=-1.09947+1.39444I$ $b=-0.198919-1.317100I$	$-0.91564+7.28669I$	0
$u=-0.303142-0.639519I$ $a=-1.09947-1.39444I$ $b=-0.198919+1.317100I$	$-0.91564-7.28669I$	0
$u=\ \ 0.591336+1.149900I$ $a=-0.601564+0.049648I$ $b=-2.33486-0.49264I$	$3.08846+8.21318I$	0
$u=\ \ 0.591336-1.149900I$ $a=-0.601564-0.049648I$ $b=-2.33486+0.49264I$	$3.08846-8.21318I$	0
$u=\ \ 0.680994+0.187589I$ $a=\ \ 0.34943+1.61121I$ $b=\ \ 0.199352+0.512633I$	$-4.16506+0.65016I$	0
$u=\ \ 0.680994-0.187589I$ $a=\ \ 0.34943-1.61121I$ $b=\ \ 0.199352-0.512633I$	$-4.16506-0.65016I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.243879+1.270480I$ $a=\ \ 0.921722+0.376796I$ $b=\ \ 1.05533-1.21452I$	$-4.71820-3.90106I$	0
$u=-0.243879-1.270480I$ $a=\ \ 0.921722-0.376796I$ $b=\ \ 1.05533+1.21452I$	$-4.71820+3.90106I$	0
$u=-0.114368+1.301540I$ $a=\ \ 0.707751-0.305884I$ $b=\ \ 1.218500+0.023743I$	$-2.50000+3.27110I$	0
$u=-0.114368-1.301540I$ $a=\ \ 0.707751+0.305884I$ $b=\ \ 1.218500-0.023743I$	$-2.50000-3.27110I$	0
$u=-0.655650+1.147280I$ $a=-0.956029+0.095424I$ $b=-1.85139+1.30148I$	$1.34448-12.04970I$	0
$u=-0.655650-1.147280I$ $a=-0.956029-0.095424I$ $b=-1.85139-1.30148I$	$1.34448+12.04970I$	0
$u=\ \ 0.694765+1.135980I$ $a=-1.129290+0.041355I$ $b=-2.03266-2.12669I$	$0.67654+13.11970I$	0
$u=\ \ 0.694765-1.135980I$ $a=-1.129290-0.041355I$ $b=-2.03266+2.12669I$	$0.67654-13.11970I$	0
$u=\ \ 0.698493+1.143020I$ $a=\ \ 1.090540+0.018777I$ $b=\ \ 1.98263+1.98339I$	$1.5969+21.7242I$	0
$u=\ \ 0.698493-1.143020I$ $a=\ \ 1.090540-0.018777I$ $b=\ \ 1.98263-1.98339I$	$1.5969-21.7242I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.025185+1.344220I$ $a=-0.925258-0.416974I$ $b=-0.809599+0.562605I$	$-3.41999-12.91290I$	0
$u=-0.025185-1.344220I$ $a=-0.925258+0.416974I$ $b=-0.809599-0.562605I$	$-3.41999+12.91290I$	0
$u=0.051161+0.650605I$ $a=-1.26048-0.90266I$ $b=0.754968+0.560515I$	$-0.05906-3.39228I$	0
$u=0.051161-0.650605I$ $a=-1.26048+0.90266I$ $b=0.754968-0.560515I$	$-0.05906+3.39228I$	0
$u=-0.683170+1.165290I$ $a=-0.044636+1.279570I$ $b=2.38024+0.17374I$	$2.53702-5.23121I$	0
$u=-0.683170-1.165290I$ $a=-0.044636-1.279570I$ $b=2.38024-0.17374I$	$2.53702+5.23121I$	0
$u=-0.660700+1.178610I$ $a=-0.951971+0.041484I$ $b=-1.47864+1.50297I$	$1.30202-8.21113I$	0
$u=-0.660700-1.178610I$ $a=-0.951971-0.041484I$ $b=-1.47864-1.50297I$	$1.30202+8.21113I$	0
$u=-0.024266+0.640154I$ $a=-0.62790+1.39073I$ $b=0.647399+0.042841I$	$1.28947-2.21051I$	0
$u=-0.024266-0.640154I$ $a=-0.62790-1.39073I$ $b=0.647399-0.042841I$	$1.28947+2.21051I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.669768 + 1.184620I$ $a = 0.583009 + 0.011201I$ $b = 2.06917 + 0.75655I$	$3.40805 + 0.44387I$	0
$u = 0.669768 - 1.184620I$ $a = 0.583009 - 0.011201I$ $b = 2.06917 - 0.75655I$	$3.40805 - 0.44387I$	0
$u = -0.750132 + 1.156530I$ $a = 0.882688 - 0.114681I$ $b = 1.71143 - 1.76637I$	$-1.29708 - 12.16470I$	0
$u = -0.750132 - 1.156530I$ $a = 0.882688 + 0.114681I$ $b = 1.71143 + 1.76637I$	$-1.29708 + 12.16470I$	0
$u = -0.006226 + 1.382370I$ $a = 0.938264 + 0.527448I$ $b = 0.437068 - 0.698150I$	$-4.31929 - 4.29554I$	0
$u = -0.006226 - 1.382370I$ $a = 0.938264 - 0.527448I$ $b = 0.437068 + 0.698150I$	$-4.31929 + 4.29554I$	0
$u = -0.598428$ $a = -0.545366$ $b = -0.455525$	1.69096	6.88900
$u = -0.851491 + 1.124430I$ $a = 0.362627 - 0.670678I$ $b = -0.796497 - 0.457318I$	$2.41377 + 3.10857I$	0
$u = -0.851491 - 1.124430I$ $a = 0.362627 + 0.670678I$ $b = -0.796497 + 0.457318I$	$2.41377 - 3.10857I$	0
$u = 0.524881 + 0.238110I$ $a = 0.16181 - 1.94907I$ $b = 0.988581 - 0.123710I$	$-0.34441 - 3.12373I$	$4.00000 + 3.40998I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.524881 - 0.238110I$ $a = 0.16181 + 1.94907I$ $b = 0.988581 + 0.123710I$	$-0.34441 + 3.12373I$	$4.00000 - 3.40998I$
$u = -0.492531 + 0.116719I$ $a = 0.57550 + 2.27660I$ $b = 0.021377 - 0.150599I$	$-0.66987 + 7.18094I$	$2.77247 - 9.03209I$
$u = -0.492531 - 0.116719I$ $a = 0.57550 - 2.27660I$ $b = 0.021377 + 0.150599I$	$-0.66987 - 7.18094I$	$2.77247 + 9.03209I$
$u = -0.359054 + 0.333217I$ $a = -1.38179 + 0.34183I$ $b = -0.387860 + 0.741927I$	$0.789191 - 0.987943I$	$6.65056 + 6.20970I$
$u = -0.359054 - 0.333217I$ $a = -1.38179 - 0.34183I$ $b = -0.387860 - 0.741927I$	$0.789191 + 0.987943I$	$6.65056 - 6.20970I$
$u = -0.269196 + 0.374107I$ $a = -1.31964 + 0.83174I$ $b = -0.094424 + 1.097580I$	$0.857991 - 1.064520I$	$6.46847 + 5.86847I$
$u = -0.269196 - 0.374107I$ $a = -1.31964 - 0.83174I$ $b = -0.094424 - 1.097580I$	$0.857991 + 1.064520I$	$6.46847 - 5.86847I$
$u = -0.07268 + 1.72072I$ $a = -0.521040 + 0.207239I$ $b = -0.749861 - 0.828650I$	$-7.88742 + 1.33463I$	0
$u = -0.07268 - 1.72072I$ $a = -0.521040 - 0.207239I$ $b = -0.749861 + 0.828650I$	$-7.88742 - 1.33463I$	0

II.

$\boldsymbol{I_2^u = \langle -4.41\times 10^{28}u^{49}+2.00\times 10^{29}u^{48}+\cdots+4.27\times 10^{28}b+7.48\times 10^{28},\ 1.07\times 10^{28}u^{49}-2.48\times 10^{28}u^{48}+\cdots+4.27\times 10^{28}a-1.91\times 10^{28},\ u^{50}-3u^{49}+\cdots-5u+1\rangle}$

(i) Arc colorings

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

$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u \\ u^3+u \end{pmatrix}$$

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

$$a_{11} = \begin{pmatrix} -0.251109u^{49}+0.579867u^{48}+\cdots-10.2799u+0.446548 \\ 1.03167u^{49}-4.69028u^{48}+\cdots+14.5373u-1.75168 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -2.60888u^{49}+6.86110u^{48}+\cdots-6.24561u+3.75701 \\ -0.500163u^{49}+1.08086u^{48}+\cdots+5.27977u-1.89621 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -1.66987u^{49}+5.77668u^{48}+\cdots-9.51812u-0.806856 \\ 0.917103u^{49}-4.58351u^{48}+\cdots+12.4696u-1.84230 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -3.32760u^{49}+9.11251u^{48}+\cdots-10.5204u+4.50005 \\ -0.534434u^{49}+1.57483u^{48}+\cdots+2.19979u-1.24839 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.395945u^{49}-2.77211u^{48}+\cdots-2.16041u+3.05072 \\ 0.0396463u^{49}-1.19043u^{48}+\cdots+13.6142u-3.04095 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -2.32030u^{49}+6.17028u^{48}+\cdots-9.60811u+5.20660 \\ -1.91739u^{49}+4.41970u^{48}+\cdots+6.72789u-2.63206 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1.67416u^{49}-4.93797u^{48}+\cdots-9.22340u+6.73048 \\ 0.975780u^{49}-4.38189u^{48}+\cdots+22.0273u-4.36829 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -14.0416u^{49}+36.6197u^{48}+\cdots+6.17765u+4.97400$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{50} - 29u^{49} + \cdots - 11u + 1$
c_2	$u^{50} - 3u^{49} + \cdots - 5u + 1$
c_3	$16(16u^{50} + 420u^{49} + \cdots + 22u + 1)$
c_4	$4(4u^{50} + 14u^{49} + \cdots - 4u + 1)$
c_5	$u^{50} + 4u^{49} + \cdots + 46u + 4$
c_6	$u^{50} - 8u^{49} + \cdots + 1308u + 368$
c_7	$4(4u^{50} + 2u^{49} + \cdots + 2u + 1)$
c_8	$u^{50} + 3u^{49} + \cdots + 5u + 1$
c_9	$u^{50} + u^{49} + \cdots + 210u + 20$
c_{10}	$4(4u^{50} - 2u^{49} + \cdots - 7u + 1)$
c_{11}	$4(4u^{50} - 2u^{49} + \cdots - 2u + 1)$
c_{12}	$u^{50} - 4u^{49} + \cdots - 9u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{50} + y^{49} + \cdots + 191y + 1$
c_2, c_8	$y^{50} + 29y^{49} + \cdots + 11y + 1$
c_3	$256(256y^{50} - 8688y^{49} + \cdots - 90y + 1)$
c_4	$16(16y^{50} + 324y^{49} + \cdots + 26y + 1)$
c_5	$y^{50} - 26y^{49} + \cdots - 1020y + 16$
c_6	$y^{50} + 8y^{49} + \cdots + 1766736y + 135424$
c_7, c_{11}	$16(16y^{50} + 532y^{49} + \cdots + 56y + 1)$
c_9	$y^{50} + y^{49} + \cdots - 2860y + 400$
c_{10}	$16(16y^{50} + 404y^{49} + \cdots + y + 1)$
c_{12}	$y^{50} + 4y^{49} + \cdots - 13y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.521719+0.844521I$ $a=\ 1.46409-1.54922I$ $b=-0.21490-1.67464I$	$1.50413-2.12666I$	$49.6684-31.6457I$
$u=-0.521719-0.844521I$ $a=\ 1.46409+1.54922I$ $b=-0.21490+1.67464I$	$1.50413+2.12666I$	$49.6684+31.6457I$
$u=-0.881405+0.529664I$ $a=\ 0.068761-1.164420I$ $b=-1.109250+0.171215I$	$2.31195+5.46201I$	$4.00000-4.25785I$
$u=-0.881405-0.529664I$ $a=\ 0.068761+1.164420I$ $b=-1.109250-0.171215I$	$2.31195-5.46201I$	$4.00000+4.25785I$
$u=\ 0.113378+1.045450I$ $a=-1.070450-0.382925I$ $b=-1.39191+0.44780I$	$-4.35736+1.10322I$	$-1.70215-5.10234I$
$u=\ 0.113378-1.045450I$ $a=-1.070450+0.382925I$ $b=-1.39191-0.44780I$	$-4.35736-1.10322I$	$-1.70215+5.10234I$
$u=-0.611677+0.711073I$ $a=-0.314117+0.432961I$ $b=\ 2.42086-1.09670I$	$4.17195-5.24675I$	$9.44272+1.53195I$
$u=-0.611677-0.711073I$ $a=-0.314117-0.432961I$ $b=\ 2.42086+1.09670I$	$4.17195+5.24675I$	$9.44272-1.53195I$
$u=\ 0.419190+1.031420I$ $a=\ 1.240490-0.022878I$ $b=\ 1.65307+0.74534I$	$-1.81131+9.87529I$	0
$u=\ 0.419190-1.031420I$ $a=\ 1.240490+0.022878I$ $b=\ 1.65307-0.74534I$	$-1.81131-9.87529I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.680304 + 0.890083I$ $a = -1.030480 - 0.136443I$ $b = -0.80126 - 2.17372I$	$1.08834 + 9.78189I$	0
$u = 0.680304 - 0.890083I$ $a = -1.030480 + 0.136443I$ $b = -0.80126 + 2.17372I$	$1.08834 - 9.78189I$	0
$u = 0.843001 + 0.743820I$ $a = 0.419670 + 0.264215I$ $b = -0.012919 + 0.915971I$	$4.98271 - 1.45949I$	0
$u = 0.843001 - 0.743820I$ $a = 0.419670 - 0.264215I$ $b = -0.012919 - 0.915971I$	$4.98271 + 1.45949I$	0
$u = 0.807489 + 0.794811I$ $a = -0.309029 - 0.908521I$ $b = 1.38317 - 0.50238I$	$1.36039 - 4.21949I$	0
$u = 0.807489 - 0.794811I$ $a = -0.309029 + 0.908521I$ $b = 1.38317 + 0.50238I$	$1.36039 + 4.21949I$	0
$u = -0.507697 + 0.692530I$ $a = 0.476869 - 0.341873I$ $b = -2.74757 + 1.72264I$	$3.73289 + 3.07957I$	$8.83209 - 9.44505I$
$u = -0.507697 - 0.692530I$ $a = 0.476869 + 0.341873I$ $b = -2.74757 - 1.72264I$	$3.73289 - 3.07957I$	$8.83209 + 9.44505I$
$u = 0.373256 + 0.768705I$ $a = 0.93744 + 1.29376I$ $b = -0.035421 - 0.556993I$	$-0.82276 - 6.58158I$	$4.46353 + 0.77573I$
$u = 0.373256 - 0.768705I$ $a = 0.93744 - 1.29376I$ $b = -0.035421 + 0.556993I$	$-0.82276 + 6.58158I$	$4.46353 - 0.77573I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.140556+1.138580I$ $a=-0.792979+0.410344I$ $b=-1.61057+0.09718I$	$-3.48682+3.66800I$	0
$u=-0.140556-1.138580I$ $a=-0.792979-0.410344I$ $b=-1.61057-0.09718I$	$-3.48682-3.66800I$	0
$u=0.075027+0.847661I$ $a=-1.210940+0.357637I$ $b=-0.090190+0.652032I$	$-3.56293-0.29124I$	$-4.48648+2.78228I$
$u=0.075027-0.847661I$ $a=-1.210940-0.357637I$ $b=-0.090190-0.652032I$	$-3.56293+0.29124I$	$-4.48648-2.78228I$
$u=0.802802+0.838518I$ $a=0.754669+0.588941I$ $b=-0.64385+1.72887I$	$2.99478+2.98643I$	0
$u=0.802802-0.838518I$ $a=0.754669-0.588941I$ $b=-0.64385-1.72887I$	$2.99478-2.98643I$	0
$u=-0.059429+1.161390I$ $a=-0.740181+0.119071I$ $b=-0.710616+0.418422I$	$-2.14025-1.48592I$	0
$u=-0.059429-1.161390I$ $a=-0.740181-0.119071I$ $b=-0.710616-0.418422I$	$-2.14025+1.48592I$	0
$u=-0.559729+1.040830I$ $a=0.435190-0.200137I$ $b=2.23637-1.74851I$	$2.52043-7.42935I$	0
$u=-0.559729-1.040830I$ $a=0.435190+0.200137I$ $b=2.23637+1.74851I$	$2.52043+7.42935I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.687649+1.031810I$ $a=-0.478126+0.107801I$ $b=-1.74417+1.41117I$	$3.12403+0.17282I$	0
$u=-0.687649-1.031810I$ $a=-0.478126-0.107801I$ $b=-1.74417-1.41117I$	$3.12403-0.17282I$	0
$u=0.760968+0.988019I$ $a=0.288419+0.272282I$ $b=-0.395736+0.623473I$	$4.23417+7.43677I$	0
$u=0.760968-0.988019I$ $a=0.288419-0.272282I$ $b=-0.395736-0.623473I$	$4.23417-7.43677I$	0
$u=0.612474+0.417235I$ $a=1.61626-0.63464I$ $b=1.81898+0.56494I$	$4.77750+0.22901I$	$7.69656+5.94075I$
$u=0.612474-0.417235I$ $a=1.61626+0.63464I$ $b=1.81898-0.56494I$	$4.77750-0.22901I$	$7.69656-5.94075I$
$u=-0.016482+0.713129I$ $a=-0.834621-0.645193I$ $b=1.310900-0.134617I$	$-1.56089-4.24722I$	$0.15146+8.27284I$
$u=-0.016482-0.713129I$ $a=-0.834621+0.645193I$ $b=1.310900+0.134617I$	$-1.56089+4.24722I$	$0.15146-8.27284I$
$u=-0.674589+1.112160I$ $a=0.970346-0.088994I$ $b=2.00778-1.54866I$	$0.51137-11.23890I$	0
$u=-0.674589-1.112160I$ $a=0.970346+0.088994I$ $b=2.00778+1.54866I$	$0.51137+11.23890I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.687691 + 1.136180I$ $a = 0.054720 + 1.197180I$ $b = -2.18005 + 0.27232I$	$2.55368 + 5.14288I$	0
$u = 0.687691 - 1.136180I$ $a = 0.054720 - 1.197180I$ $b = -2.18005 - 0.27232I$	$2.55368 - 5.14288I$	0
$u = 0.097917 + 1.336440I$ $a = -0.916049 + 0.463478I$ $b = -0.749623 - 0.877368I$	$-4.27823 + 4.02582I$	0
$u = 0.097917 - 1.336440I$ $a = -0.916049 - 0.463478I$ $b = -0.749623 + 0.877368I$	$-4.27823 - 4.02582I$	0
$u = -0.422556 + 0.335604I$ $a = -1.59780 + 0.87685I$ $b = -0.75811 + 1.20498I$	$0.972610 - 0.126620I$	$8.67602 - 2.60101I$
$u = -0.422556 - 0.335604I$ $a = -1.59780 - 0.87685I$ $b = -0.75811 - 1.20498I$	$0.972610 + 0.126620I$	$8.67602 + 2.60101I$
$u = 0.254591 + 0.184996I$ $a = -0.71374 - 3.28430I$ $b = 0.851156 + 0.586267I$	$0.62667 - 3.04692I$	$11.76626 + 4.07749I$
$u = 0.254591 - 0.184996I$ $a = -0.71374 + 3.28430I$ $b = 0.851156 - 0.586267I$	$0.62667 + 3.04692I$	$11.76626 - 4.07749I$
$u = 0.05540 + 1.70122I$ $a = 0.531587 + 0.197465I$ $b = 0.763858 - 0.846879I$	$-7.93250 - 1.28514I$	0
$u = 0.05540 - 1.70122I$ $a = 0.531587 - 0.197465I$ $b = 0.763858 + 0.846879I$	$-7.93250 + 1.28514I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{50}-29u^{49}+\cdots-11u+1)$ $\cdot(u^{199}+88u^{198}+\cdots-898659484u-24930049)$
c_2	$(u^{50}-3u^{49}+\cdots-5u+1)(u^{199}+2u^{198}+\cdots+2292u-4993)$
c_3	$256(16u^{50}+420u^{49}+\cdots+22u+1)$ $\cdot(16u^{199}-404u^{198}+\cdots+3748743u-588397)$
c_4	$16(4u^{50}+14u^{49}+\cdots-4u+1)(4u^{199}+34u^{198}+\cdots+1315u-115)$
c_5	$(u^{50}+4u^{49}+\cdots+46u+4)$ $\cdot(u^{199}+3u^{198}+\cdots+150597109870u-13651828868)$
c_6	$(u^{50}-8u^{49}+\cdots+1308u+368)$ $\cdot(u^{199}-3u^{198}+\cdots+22334708u-1049936)$
c_7	$16(4u^{50}+2u^{49}+\cdots+2u+1)(4u^{199}+6u^{198}+\cdots-u-1)$
c_8	$(u^{50}+3u^{49}+\cdots+5u+1)(u^{199}+2u^{198}+\cdots+2292u-4993)$
c_9	$(u^{50}+u^{49}+\cdots+210u+20)$ $\cdot(u^{199}+2u^{198}+\cdots+15945814u-22455076)$
c_{10}	$16(4u^{50}-2u^{49}+\cdots-7u+1)(4u^{199}+6u^{198}+\cdots+22772u-4007)$
c_{11}	$16(4u^{50}-2u^{49}+\cdots-2u+1)(4u^{199}+6u^{198}+\cdots-u-1)$
c_{12}	$(u^{50}-4u^{49}+\cdots-9u+1)(u^{199}+15u^{198}+\cdots+8u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{50}+y^{49}+\cdots+191y+1)$ $\cdot(y^{199}+64y^{198}+\cdots-36054882912463804y-621507343142401)$
c_2, c_8	$(y^{50}+29y^{49}+\cdots+11y+1)$ $\cdot(y^{199}+88y^{198}+\cdots-898659484y-24930049)$
c_3	$65536(256y^{50}-8688y^{49}+\cdots-90y+1)$ $\cdot(256y^{199}-10480y^{198}+\cdots+23809268261933y-346211029609)$
c_4	$256(16y^{50}+324y^{49}+\cdots+26y+1)$ $\cdot(16y^{199}+436y^{198}+\cdots-851375y-13225)$
c_5	$(y^{50}-26y^{49}+\cdots-1020y+16)$ $\cdot(y^{199}-83y^{198}+\cdots+9.36\times10^{21}y-1.86\times10^{20})$
c_6	$(y^{50}+8y^{49}+\cdots+1766736y+135424)$ $\cdot(y^{199}+27y^{198}+\cdots-297526789893840y-1102365604096)$
c_7, c_{11}	$256(16y^{50}+532y^{49}+\cdots+56y+1)$ $\cdot(16y^{199}+1668y^{198}+\cdots-53y-1)$
c_9	$(y^{50}+y^{49}+\cdots-2860y+400)$ $\cdot(y^{199}-44y^{198}+\cdots+9475054102446396y-504230438165776)$
c_{10}	$256(16y^{50}+404y^{49}+\cdots+y+1)$ $\cdot(16y^{199}+580y^{198}+\cdots-1764055622y-16056049)$
c_{12}	$(y^{50}+4y^{49}+\cdots-13y+1)(y^{199}-17y^{198}+\cdots+180y-1)$