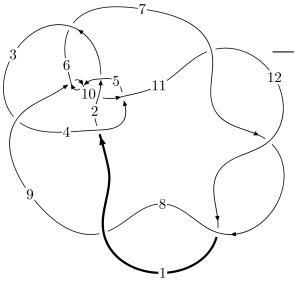
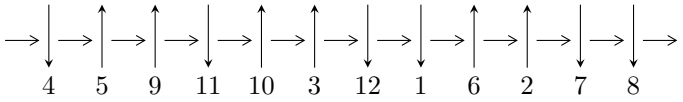
$12a_{0855}$ $(K12a_{0855})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -2.71973 \times 10^{150} u^{106} - 1.35102 \times 10^{150} u^{105} + \cdots + 2.76810 \times 10^{149} b + 1.95138 \times 10^{151},$$
$$- 3.00286 \times 10^{151} u^{106} - 9.93085 \times 10^{150} u^{105} + \cdots + 3.59853 \times 10^{150} a + 1.40666 \times 10^{152},$$
$$u^{107} - u^{106} + \cdots + 37u + 13 \rangle$$
$$I_2^u = \langle -6u^{21} + 13u^{20} + \cdots + b - 9,\ -8u^{21} + 8u^{20} + \cdots + a + 1,\ u^{22} - 14u^{20} + \cdots - 14u^2 + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 129 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. $\boldsymbol{I_1^u = \langle -2.72 \times 10^{150} u^{106} - 1.35 \times 10^{150} u^{105} + \cdots + 2.77 \times 10^{149} b + 1.95 \times 10^{151},\ -3.00 \times 10^{151} u^{106} - 9.93 \times 10^{150} u^{105} + \cdots + 3.60 \times 10^{150} a + 1.41 \times 10^{152},\ u^{107} - u^{106} + \cdots + 37u + 13 \rangle}$

(i) Arc colorings

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

$$a_{12} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} 8.34469u^{106} + 2.75970u^{105} + \cdots - 204.687u - 39.0899 \\ 9.82526u^{106} + 4.88068u^{105} + \cdots - 298.738u - 70.4952 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -18.6646u^{106} - 10.3720u^{105} + \cdots + 546.013u + 156.555 \\ -31.5456u^{106} - 17.6970u^{105} + \cdots + 941.795u + 275.347 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} 9.49206u^{106} + 3.47400u^{105} + \cdots - 224.750u - 49.7932 \\ 12.0894u^{106} + 6.28403u^{105} + \cdots - 362.472u - 83.9937 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 3.98230u^{106} + 2.01757u^{105} + \cdots - 121.235u - 43.7384 \\ 10.9136u^{106} + 5.89206u^{105} + \cdots - 333.952u - 101.022 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 14.2838u^{106} + 6.95237u^{105} + \cdots - 388.946u - 108.913 \\ 20.7169u^{106} + 11.3131u^{105} + \cdots - 629.231u - 163.994 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 10.9981u^{106} + 8.41827u^{105} + \cdots - 371.282u - 128.867 \\ 18.8426u^{106} + 9.80105u^{105} + \cdots - 556.113u - 162.363 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -7.15694u^{106} - 0.854720u^{105} + \cdots + 135.938u + 10.9433$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{107}+8u^{106}+\cdots+79200u-3200$
c_2	$u^{107}+8u^{105}+\cdots-191u-11$
c_3	$u^{107}-u^{106}+\cdots+13886809u+3405181$
c_4	$u^{107}+u^{105}+\cdots+152u-7$
c_5, c_9	$u^{107}-3u^{106}+\cdots+22u+2$
c_6	$u^{107}+3u^{106}+\cdots-604539u-105767$
c_7, c_8, c_{11} c_{12}	$u^{107}-u^{106}+\cdots+37u+13$
c_{10}	$u^{107}-6u^{106}+\cdots+5194u-4049$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{107} - 40y^{106} + \cdots + 1928422400y - 10240000$
c_2	$y^{107} + 16y^{106} + \cdots - 7937y - 121$
c_3	$y^{107} + 47y^{106} + \cdots - 467129995532381y - 11595257642761$
c_4	$y^{107} + 2y^{106} + \cdots + 5576y - 49$
c_5, c_9	$y^{107} + 81y^{106} + \cdots + 1044y - 4$
c_6	$y^{107} + 31y^{106} + \cdots - 214514614873y - 11186658289$
c_7, c_8, c_{11} c_{12}	$y^{107} - 129y^{106} + \cdots + 5711y - 169$
c_{10}	$y^{107} + 26y^{106} + \cdots - 541032280y - 16394401$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.826655+0.568633I$ $a=\ \ 1.24553+0.76935I$ $b=-0.239026-0.064980I$	$-6.3082+14.5498I$	0
$u=-0.826655-0.568633I$ $a=\ \ 1.24553-0.76935I$ $b=-0.239026+0.064980I$	$-6.3082-14.5498I$	0
$u=\ \ 0.826318+0.570704I$ $a=\ \ 1.162670-0.663776I$ $b=-0.166220+0.227032I$	$-1.31108-8.80416I$	0
$u=\ \ 0.826318-0.570704I$ $a=\ \ 1.162670+0.663776I$ $b=-0.166220-0.227032I$	$-1.31108+8.80416I$	0
$u=-0.952140+0.249038I$ $a=-1.066520+0.168283I$ $b=\ \ 0.474150-0.262800I$	$-6.05633+4.48287I$	0
$u=-0.952140-0.249038I$ $a=-1.066520-0.168283I$ $b=\ \ 0.474150+0.262800I$	$-6.05633-4.48287I$	0
$u=-0.755159+0.631053I$ $a=\ \ 0.862027+0.687544I$ $b=-0.465536-0.607906I$	$-5.17350+1.52550I$	0
$u=-0.755159-0.631053I$ $a=\ \ 0.862027-0.687544I$ $b=-0.465536+0.607906I$	$-5.17350-1.52550I$	0
$u=\ \ 0.894153+0.343291I$ $a=\ \ 1.01314-1.38448I$ $b=\ \ 0.664382-0.567740I$	$-7.12672-5.99311I$	0
$u=\ \ 0.894153-0.343291I$ $a=\ \ 1.01314+1.38448I$ $b=\ \ 0.664382+0.567740I$	$-7.12672+5.99311I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.930030 + 0.515744I$ $a = -0.687057 + 0.215263I$ $b = 0.130481 + 0.299587I$	$-3.25087 - 5.76442I$	0
$u = 0.930030 - 0.515744I$ $a = -0.687057 - 0.215263I$ $b = 0.130481 - 0.299587I$	$-3.25087 + 5.76442I$	0
$u = -0.743000 + 0.562440I$ $a = -0.380844 - 0.646698I$ $b = 0.201098 - 0.163543I$	$-1.32303 + 2.45240I$	0
$u = -0.743000 - 0.562440I$ $a = -0.380844 + 0.646698I$ $b = 0.201098 + 0.163543I$	$-1.32303 - 2.45240I$	0
$u = 1.005200 + 0.454195I$ $a = 0.381919 - 1.027960I$ $b = 0.228876 - 0.248331I$	$-7.48788 + 5.95732I$	0
$u = 1.005200 - 0.454195I$ $a = 0.381919 + 1.027960I$ $b = 0.228876 + 0.248331I$	$-7.48788 - 5.95732I$	0
$u = -1.038100 + 0.394850I$ $a = 0.710898 + 0.790455I$ $b = 0.490308 + 0.067744I$	$-2.72871 - 0.23789I$	0
$u = -1.038100 - 0.394850I$ $a = 0.710898 - 0.790455I$ $b = 0.490308 - 0.067744I$	$-2.72871 + 0.23789I$	0
$u = 0.800127 + 0.353920I$ $a = -1.42217 + 0.40443I$ $b = 0.177923 + 0.234950I$	$-2.76423 - 4.13132I$	0
$u = 0.800127 - 0.353920I$ $a = -1.42217 - 0.40443I$ $b = 0.177923 - 0.234950I$	$-2.76423 + 4.13132I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.128530+0.019920I$ $a=\ \ 0.973765-0.309888I$ $b=\ \ 0.746272-0.341276I$	$-2.30327+0.08679I$	0
$u=-1.128530-0.019920I$ $a=\ \ 0.973765+0.309888I$ $b=\ \ 0.746272+0.341276I$	$-2.30327-0.08679I$	0
$u=-0.745803+0.416141I$ $a=-1.57506-1.14608I$ $b=\ \ 0.125676-0.466047I$	$-6.27522+5.09865I$	0
$u=-0.745803-0.416141I$ $a=-1.57506+1.14608I$ $b=\ \ 0.125676+0.466047I$	$-6.27522-5.09865I$	0
$u=-0.270313+0.732731I$ $a=\ \ 0.372324-0.269561I$ $b=\ \ 0.0940821-0.0178112I$	$0.11533+1.88710I$	0
$u=-0.270313-0.732731I$ $a=\ \ 0.372324+0.269561I$ $b=\ \ 0.0940821+0.0178112I$	$0.11533-1.88710I$	0
$u=\ \ 0.108521+0.773022I$ $a=-0.193997-0.092772I$ $b=-0.830652+0.465756I$	$0.87016+4.32926I$	0
$u=\ \ 0.108521-0.773022I$ $a=-0.193997+0.092772I$ $b=-0.830652-0.465756I$	$0.87016-4.32926I$	0
$u=\ \ 0.678973+0.383166I$ $a=-0.43360+1.55662I$ $b=\ \ 0.516580+0.114540I$	$-6.38076-0.82493I$	0
$u=\ \ 0.678973-0.383166I$ $a=-0.43360-1.55662I$ $b=\ \ 0.516580-0.114540I$	$-6.38076+0.82493I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.094171+0.764360I$ $a=-0.488244+0.039795I$ $b=-0.879858-0.577966I$	$-4.09729-10.11170I$	0
$u=-0.094171-0.764360I$ $a=-0.488244-0.039795I$ $b=-0.879858+0.577966I$	$-4.09729+10.11170I$	0
$u=0.388819+0.579837I$ $a=0.934771+0.492384I$ $b=0.264435+0.628142I$	$-1.72461-1.96082I$	$0.+4.69802I$
$u=0.388819-0.579837I$ $a=0.934771-0.492384I$ $b=0.264435-0.628142I$	$-1.72461+1.96082I$	$0.-4.69802I$
$u=-0.575845+0.393068I$ $a=1.087690+0.019654I$ $b=0.161817-0.321184I$	$-1.36848+1.44447I$	$-2.91055-4.72054I$
$u=-0.575845-0.393068I$ $a=1.087690-0.019654I$ $b=0.161817+0.321184I$	$-1.36848-1.44447I$	$-2.91055+4.72054I$
$u=-0.213091+0.648713I$ $a=0.045157+0.915947I$ $b=-0.892764-0.421227I$	$-3.70568+2.84318I$	$-4.74637-7.45487I$
$u=-0.213091-0.648713I$ $a=0.045157-0.915947I$ $b=-0.892764+0.421227I$	$-3.70568-2.84318I$	$-4.74637+7.45487I$
$u=0.666901+0.009105I$ $a=-1.66225+1.18426I$ $b=0.657173+0.836987I$	$-5.89625-0.14698I$	$-10.30166-0.10648I$
$u=0.666901-0.009105I$ $a=-1.66225-1.18426I$ $b=0.657173-0.836987I$	$-5.89625+0.14698I$	$-10.30166+0.10648I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.596289 + 0.285850I$ $a = -2.90410 + 0.32830I$ $b = -0.369695 - 0.037100I$	$-2.18570 - 6.38810I$	$-3.13881 + 11.21686I$
$u = 0.596289 - 0.285850I$ $a = -2.90410 - 0.32830I$ $b = -0.369695 + 0.037100I$	$-2.18570 + 6.38810I$	$-3.13881 - 11.21686I$
$u = -0.131185 + 0.631680I$ $a = 0.488911 - 0.353615I$ $b = -0.012361 - 0.410523I$	$-0.03169 + 1.79207I$	$3.57282 - 1.79656I$
$u = -0.131185 - 0.631680I$ $a = 0.488911 + 0.353615I$ $b = -0.012361 + 0.410523I$	$-0.03169 - 1.79207I$	$3.57282 + 1.79656I$
$u = -0.592482 + 0.205435I$ $a = -0.609364 + 0.716647I$ $b = -0.17971 - 1.60405I$	$-2.59941 + 5.79531I$	$-3.45472 - 10.54157I$
$u = -0.592482 - 0.205435I$ $a = -0.609364 - 0.716647I$ $b = -0.17971 + 1.60405I$	$-2.59941 - 5.79531I$	$-3.45472 + 10.54157I$
$u = -0.606784 + 0.152467I$ $a = -2.90825 + 1.03073I$ $b = -0.226483 + 0.599261I$	$0.14553 + 2.03996I$	$-5.55929 - 6.74240I$
$u = -0.606784 - 0.152467I$ $a = -2.90825 - 1.03073I$ $b = -0.226483 - 0.599261I$	$0.14553 - 2.03996I$	$-5.55929 + 6.74240I$
$u = 1.367050 + 0.286263I$ $a = 0.127328 + 0.290641I$ $b = -0.059407 + 0.653964I$	$-5.04557 - 5.52068I$	0
$u = 1.367050 - 0.286263I$ $a = 0.127328 - 0.290641I$ $b = -0.059407 - 0.653964I$	$-5.04557 + 5.52068I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.523351 + 0.282998I$ $a = 0.075777 - 0.409242I$ $b = -0.227408 + 1.069820I$	$1.37793 - 2.66689I$	$3.20906 + 9.66179I$
$u = 0.523351 - 0.282998I$ $a = 0.075777 + 0.409242I$ $b = -0.227408 - 1.069820I$	$1.37793 + 2.66689I$	$3.20906 - 9.66179I$
$u = -0.054601 + 0.509352I$ $a = 1.305150 + 0.511862I$ $b = 0.868600 + 0.411289I$	$-4.27961 - 1.91423I$	$-5.19806 + 3.02668I$
$u = -0.054601 - 0.509352I$ $a = 1.305150 - 0.511862I$ $b = 0.868600 - 0.411289I$	$-4.27961 + 1.91423I$	$-5.19806 - 3.02668I$
$u = -1.51066 + 0.01600I$ $a = 0.418299 + 0.263996I$ $b = 1.252000 - 0.484762I$	$-7.30569 + 3.49955I$	0
$u = -1.51066 - 0.01600I$ $a = 0.418299 - 0.263996I$ $b = 1.252000 + 0.484762I$	$-7.30569 - 3.49955I$	0
$u = -0.130339 + 0.458302I$ $a = 0.726225 - 0.442383I$ $b = 0.347372 - 0.529775I$	$-0.127455 + 1.387300I$	$-1.33789 - 2.89703I$
$u = -0.130339 - 0.458302I$ $a = 0.726225 + 0.442383I$ $b = 0.347372 + 0.529775I$	$-0.127455 - 1.387300I$	$-1.33789 + 2.89703I$
$u = -0.453754 + 0.108285I$ $a = -0.04965 + 1.64879I$ $b = 0.540457 + 1.147730I$	$0.643121 - 0.885450I$	$-1.73889 - 3.55551I$
$u = -0.453754 - 0.108285I$ $a = -0.04965 - 1.64879I$ $b = 0.540457 - 1.147730I$	$0.643121 + 0.885450I$	$-1.73889 + 3.55551I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.53593 + 0.00041I$ $a = 1.94990 + 1.21251I$ $b = 3.38519 + 1.90248I$	$-8.57444 + 3.57156I$	0
$u = 1.53593 - 0.00041I$ $a = 1.94990 - 1.21251I$ $b = 3.38519 - 1.90248I$	$-8.57444 - 3.57156I$	0
$u = -0.388804 + 0.226078I$ $a = 3.22669 - 1.04826I$ $b = -0.440064 + 0.555353I$	$-2.04622 - 4.07547I$	$-0.50699 - 3.20827I$
$u = -0.388804 - 0.226078I$ $a = 3.22669 + 1.04826I$ $b = -0.440064 - 0.555353I$	$-2.04622 + 4.07547I$	$-0.50699 + 3.20827I$
$u = 0.333256 + 0.298984I$ $a = 2.14138 - 0.52844I$ $b = -0.471791 - 0.066122I$	$1.86436 + 0.38575I$	$5.67353 + 2.84630I$
$u = 0.333256 - 0.298984I$ $a = 2.14138 + 0.52844I$ $b = -0.471791 + 0.066122I$	$1.86436 - 0.38575I$	$5.67353 - 2.84630I$
$u = -1.55441$ $a = 2.20352$ $b = 3.90175$	-4.55561	0
$u = 0.310054 + 0.318457I$ $a = 0.84539 - 1.42016I$ $b = 0.743246 - 0.990318I$	$-1.38392 + 4.09651I$	$1.050672 - 0.014571I$
$u = 0.310054 - 0.318457I$ $a = 0.84539 + 1.42016I$ $b = 0.743246 + 0.990318I$	$-1.38392 - 4.09651I$	$1.050672 + 0.014571I$
$u = 1.55646 + 0.06741I$ $a = 1.093070 - 0.275160I$ $b = 2.35045 - 0.12880I$	$-8.49647 - 2.94856I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.55646 - 0.06741I$ $a = 1.093070 + 0.275160I$ $b = 2.35045 + 0.12880I$	$-8.49647 + 2.94856I$	0
$u = -1.57542 + 0.04875I$ $a = 0.301319 + 1.218030I$ $b = 0.65085 + 1.32300I$	$-5.85412 + 3.68887I$	0
$u = -1.57542 - 0.04875I$ $a = 0.301319 - 1.218030I$ $b = 0.65085 - 1.32300I$	$-5.85412 - 3.68887I$	0
$u = 1.57646 + 0.00668I$ $a = -0.315882 + 0.122479I$ $b = -0.407087 - 0.879129I$	$-6.50230 + 0.63577I$	0
$u = 1.57646 - 0.00668I$ $a = -0.315882 - 0.122479I$ $b = -0.407087 + 0.879129I$	$-6.50230 - 0.63577I$	0
$u = -1.59602 + 0.06317I$ $a = -2.18540 + 0.44125I$ $b = -4.64805 + 0.94344I$	$-9.77380 + 7.56844I$	0
$u = -1.59602 - 0.06317I$ $a = -2.18540 - 0.44125I$ $b = -4.64805 - 0.94344I$	$-9.77380 - 7.56844I$	0
$u = 1.60196 + 0.04672I$ $a = -0.16909 - 1.99689I$ $b = -0.25317 - 2.61736I$	$-10.26230 - 6.65235I$	0
$u = 1.60196 - 0.04672I$ $a = -0.16909 + 1.99689I$ $b = -0.25317 + 2.61736I$	$-10.26230 + 6.65235I$	0
$u = -1.60126 + 0.12605I$ $a = -1.69718 - 0.94538I$ $b = -2.98785 - 1.76643I$	$-14.1458 + 2.7966I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.60126-0.12605I$ $a=-1.69718+0.94538I$ $b=-2.98785+1.76643I$	$-14.1458-2.7966I$	0
$u=1.60618+0.03641I$ $a=-2.01459-0.54776I$ $b=-4.24925-1.61665I$	$-7.59927-2.69628I$	0
$u=1.60618-0.03641I$ $a=-2.01459+0.54776I$ $b=-4.24925+1.61665I$	$-7.59927+2.69628I$	0
$u=-1.62630+0.00862I$ $a=-1.91576-0.09707I$ $b=-3.47477+0.56297I$	$-13.98410-0.07693I$	0
$u=-1.62630-0.00862I$ $a=-1.91576+0.09707I$ $b=-3.47477-0.56297I$	$-13.98410+0.07693I$	0
$u=1.62253+0.11727I$ $a=-2.33065-0.05749I$ $b=-4.37343+0.19986I$	$-14.3859-7.1012I$	0
$u=1.62253-0.11727I$ $a=-2.33065+0.05749I$ $b=-4.37343-0.19986I$	$-14.3859+7.1012I$	0
$u=1.63106+0.16213I$ $a=-1.308480+0.197440I$ $b=-2.39892+0.43106I$	$-9.41462-5.17428I$	0
$u=1.63106-0.16213I$ $a=-1.308480-0.197440I$ $b=-2.39892-0.43106I$	$-9.41462+5.17428I$	0
$u=-1.63888+0.10149I$ $a=-2.04807+0.24513I$ $b=-3.87746+0.37434I$	$-11.16890+5.87888I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.63888-0.10149I$ $a=-2.04807-0.24513I$ $b=-3.87746-0.37434I$	$-11.16890-5.87888I$	0
$u=-1.65348+0.16726I$ $a=\ \ 1.90898+0.12209I$ $b=\ \ 3.78308+0.00892I$	$-9.7694+11.6409I$	0
$u=-1.65348-0.16726I$ $a=\ \ 1.90898-0.12209I$ $b=\ \ 3.78308-0.00892I$	$-9.7694-11.6409I$	0
$u=\ \ 1.65345+0.16833I$ $a=\ \ 2.07228-0.06027I$ $b=\ \ 3.99454+0.03110I$	$-14.7660-17.3895I$	0
$u=\ \ 1.65345-0.16833I$ $a=\ \ 2.07228+0.06027I$ $b=\ \ 3.99454-0.03110I$	$-14.7660+17.3895I$	0
$u=\ \ 1.65289+0.18500I$ $a=\ \ 1.73845-0.39300I$ $b=\ \ 3.49292-0.22193I$	$-13.4163-4.6589I$	0
$u=\ \ 1.65289-0.18500I$ $a=\ \ 1.73845+0.39300I$ $b=\ \ 3.49292+0.22193I$	$-13.4163+4.6589I$	0
$u=-1.66357+0.09570I$ $a=\ \ 1.267340+0.538939I$ $b=\ \ 2.77423+1.67822I$	$-15.9764+7.7042I$	0
$u=-1.66357-0.09570I$ $a=\ \ 1.267340-0.538939I$ $b=\ \ 2.77423-1.67822I$	$-15.9764-7.7042I$	0
$u=\ \ 1.67660+0.07823I$ $a=-2.03780-0.53450I$ $b=-3.70133-1.03303I$	$-15.1958-5.8359I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.67660 - 0.07823I$ $a = -2.03780 + 0.53450I$ $b = -3.70133 + 1.03303I$	$-15.1958 + 5.8359I$	0
$u = 1.68178 + 0.08565I$ $a = 1.300640 - 0.393784I$ $b = 2.84988 - 1.09938I$	$-12.11680 - 1.45278I$	0
$u = 1.68178 - 0.08565I$ $a = 1.300640 + 0.393784I$ $b = 2.84988 + 1.09938I$	$-12.11680 + 1.45278I$	0
$u = -1.67899 + 0.15658I$ $a = -1.320880 + 0.340947I$ $b = -2.43078 + 0.52908I$	$-12.2047 + 8.4603I$	0
$u = -1.67899 - 0.15658I$ $a = -1.320880 - 0.340947I$ $b = -2.43078 - 0.52908I$	$-12.2047 - 8.4603I$	0
$u = -1.70180 + 0.09253I$ $a = 1.153820 + 0.397207I$ $b = 2.34613 + 1.07521I$	$-17.0082 - 3.9132I$	0
$u = -1.70180 - 0.09253I$ $a = 1.153820 - 0.397207I$ $b = 2.34613 - 1.07521I$	$-17.0082 + 3.9132I$	0

II. $I_2^u =$
$\langle -6u^{21}+13u^{20}+\cdots+b-9,\ -8u^{21}+8u^{20}+\cdots+a+1,\ u^{22}-14u^{20}+\cdots-14u^2+1\rangle$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 8u^{21} - 8u^{20} + \cdots - 18u - 1 \\ 6u^{21} - 13u^{20} + \cdots + 10u + 9 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -17u^{21} + 13u^{20} + \cdots + 58u + 12 \\ -19u^{21} + 29u^{20} + \cdots + 10u - 12 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 8u^{21} - 9u^{20} + \cdots - 9u^2 - 18u \\ 6u^{21} - 14u^{20} + \cdots + 10u + 9 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -8u^{21} + u^{20} + \cdots + 38u + 15 \\ -7u^{21} + 9u^{20} + \cdots + u - 5 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 13u^{21} - 15u^{20} + \cdots - 31u^2 - 27u \\ 12u^{21} - 25u^{20} + \cdots + 9u + 14 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 4u^{21} - 5u^{20} + \cdots - 18u - 3 \\ 5u^{21} - 4u^{20} + \cdots - 15u - 3 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -34u^{21} + 36u^{20} + 417u^{19} - 378u^{18} - 2171u^{17} + 1503u^{16} + 6307u^{15} - 2537u^{14} - 11296u^{13} + 420u^{12} + 12788u^{11} + 4899u^{10} - 8467u^9 - 7598u^8 + 1988u^7 + 5060u^6 + 1136u^5 - 1544u^4 - 732u^3 + 74u^2 + 68u + 5$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{22} - 11u^{21} + \cdots - 22u + 2$
c_2	$u^{22} + 11u^{21} + \cdots + 4u + 1$
c_3	$u^{22} + 3u^{19} + \cdots - 4u^3 + 1$
c_4	$u^{22} - u^{21} + \cdots - u + 1$
c_5	$u^{22} - 2u^{21} + \cdots + 7u^2 + 2$
c_6	$u^{22} + 4u^{20} + \cdots - 4u + 1$
c_7, c_8	$u^{22} - 14u^{20} + \cdots - 14u^2 + 1$
c_9	$u^{22} + 2u^{21} + \cdots + 7u^2 + 2$
c_{10}	$u^{22} - u^{21} + \cdots - u + 1$
c_{11}, c_{12}	$u^{22} - 14u^{20} + \cdots - 14u^2 + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{22} + 5y^{21} + \cdots + 24y + 4$
c_2	$y^{22} + 5y^{21} + \cdots - 16y + 1$
c_3	$y^{22} + 10y^{20} + \cdots + 6y^2 + 1$
c_4	$y^{22} + 7y^{21} + \cdots + 3y + 1$
c_5, c_9	$y^{22} + 18y^{21} + \cdots + 28y + 4$
c_6	$y^{22} + 8y^{21} + \cdots - 8y + 1$
c_7, c_8, c_{11} c_{12}	$y^{22} - 28y^{21} + \cdots - 28y + 1$
c_{10}	$y^{22} + 3y^{21} + \cdots + 7y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.883650 + 0.274941I$ $a = -1.206740 - 0.037392I$ $b = -0.177184 + 0.491411I$	$-4.26069 - 5.59133I$	$-7.61753 + 8.06650I$
$u = 0.883650 - 0.274941I$ $a = -1.206740 + 0.037392I$ $b = -0.177184 - 0.491411I$	$-4.26069 + 5.59133I$	$-7.61753 - 8.06650I$
$u = -0.648878 + 0.517765I$ $a = -0.956776 - 0.881923I$ $b = 0.651029 + 0.396629I$	$-4.78922 + 1.83440I$	$-4.02953 - 7.61290I$
$u = -0.648878 - 0.517765I$ $a = -0.956776 + 0.881923I$ $b = 0.651029 - 0.396629I$	$-4.78922 - 1.83440I$	$-4.02953 + 7.61290I$
$u = -0.320909 + 0.728060I$ $a = 0.334744 - 0.147005I$ $b = 0.212940 - 0.347592I$	$0.21276 + 2.23915I$	$6.5156 - 14.6358I$
$u = -0.320909 - 0.728060I$ $a = 0.334744 + 0.147005I$ $b = 0.212940 + 0.347592I$	$0.21276 - 2.23915I$	$6.5156 + 14.6358I$
$u = -1.214700 + 0.109592I$ $a = -0.912388 - 0.577901I$ $b = -0.980266 - 0.232643I$	$-1.96095 - 0.41841I$	$3.20351 + 6.57114I$
$u = -1.214700 - 0.109592I$ $a = -0.912388 + 0.577901I$ $b = -0.980266 + 0.232643I$	$-1.96095 + 0.41841I$	$3.20351 - 6.57114I$
$u = 1.314120 + 0.214812I$ $a = -0.474425 - 0.313002I$ $b = -0.398469 - 0.146898I$	$-4.64747 - 5.82575I$	$-0.15245 + 9.27307I$
$u = 1.314120 - 0.214812I$ $a = -0.474425 + 0.313002I$ $b = -0.398469 + 0.146898I$	$-4.64747 + 5.82575I$	$-0.15245 - 9.27307I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.54601+0.00198I$ $a=\ \ 1.22693+1.60055I$ $b=\ \ 2.56709+2.18380I$	$-8.98731+4.68924I$	$-7.02785-6.69732I$
$u=-1.54601-0.00198I$ $a=\ \ 1.22693-1.60055I$ $b=\ \ 2.56709-2.18380I$	$-8.98731-4.68924I$	$-7.02785+6.69732I$
$u=\ \ 1.56136+0.04047I$ $a=\ \ 0.849988-0.128617I$ $b=\ \ 1.91111+0.65668I$	$-6.04541-2.30238I$	$-0.138479+1.235551I$
$u=\ \ 1.56136-0.04047I$ $a=\ \ 0.849988+0.128617I$ $b=\ \ 1.91111-0.65668I$	$-6.04541+2.30238I$	$-0.138479-1.235551I$
$u=-0.380236+0.169609I$ $a=\ \ 2.19835-0.48042I$ $b=\ \ 0.306126-0.931426I$	$0.84990+1.59935I$	$2.80477-4.04603I$
$u=-0.380236-0.169609I$ $a=\ \ 2.19835+0.48042I$ $b=\ \ 0.306126+0.931426I$	$0.84990-1.59935I$	$2.80477+4.04603I$
$u=\ \ 0.369350+0.031485I$ $a=\ \ 3.08595+1.69432I$ $b=\ \ 0.313077-1.117600I$	$-2.25187+4.74030I$	$-5.76983-6.64488I$
$u=\ \ 0.369350-0.031485I$ $a=\ \ 3.08595-1.69432I$ $b=\ \ 0.313077+1.117600I$	$-2.25187-4.74030I$	$-5.76983+6.64488I$
$u=\ \ 1.63073+0.13856I$ $a=-1.92493+0.32061I$ $b=-3.63978+0.32775I$	$-12.73850-4.26093I$	$-5.85561+1.91902I$
$u=\ \ 1.63073-0.13856I$ $a=-1.92493-0.32061I$ $b=-3.63978-0.32775I$	$-12.73850+4.26093I$	$-5.85561-1.91902I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.64848+0.10252I$		
$a=-1.72070+0.52512I$	$-12.9539+7.2364I$	$-7.93262-5.45866I$
$b=-3.26568+0.66889I$		
$u=-1.64848-0.10252I$		
$a=-1.72070-0.52512I$	$-12.9539-7.2364I$	$-7.93262+5.45866I$
$b=-3.26568-0.66889I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{22}-11u^{21}+\cdots-22u+2)(u^{107}+8u^{106}+\cdots+79200u-3200)$
c_2	$(u^{22}+11u^{21}+\cdots+4u+1)(u^{107}+8u^{105}+\cdots-191u-11)$
c_3	$(u^{22}+3u^{19}+\cdots-4u^3+1)(u^{107}-u^{106}+\cdots+1.38868\times10^7u+3405181)$
c_4	$(u^{22}-u^{21}+\cdots-u+1)(u^{107}+u^{105}+\cdots+152u-7)$
c_5	$(u^{22}-2u^{21}+\cdots+7u^2+2)(u^{107}-3u^{106}+\cdots+22u+2)$
c_6	$(u^{22}+4u^{20}+\cdots-4u+1)(u^{107}+3u^{106}+\cdots-604539u-105767)$
c_7, c_8	$(u^{22}-14u^{20}+\cdots-14u^2+1)(u^{107}-u^{106}+\cdots+37u+13)$
c_9	$(u^{22}+2u^{21}+\cdots+7u^2+2)(u^{107}-3u^{106}+\cdots+22u+2)$
c_{10}	$(u^{22}-u^{21}+\cdots-u+1)(u^{107}-6u^{106}+\cdots+5194u-4049)$
c_{11}, c_{12}	$(u^{22}-14u^{20}+\cdots-14u^2+1)(u^{107}-u^{106}+\cdots+37u+13)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{22}+5y^{21}+\cdots+24y+4)$ $\cdot(y^{107}-40y^{106}+\cdots+1928422400y-10240000)$
c_2	$(y^{22}+5y^{21}+\cdots-16y+1)(y^{107}+16y^{106}+\cdots-7937y-121)$
c_3	$(y^{22}+10y^{20}+\cdots+6y^2+1)$ $\cdot(y^{107}+47y^{106}+\cdots-467129995532381y-11595257642761)$
c_4	$(y^{22}+7y^{21}+\cdots+3y+1)(y^{107}+2y^{106}+\cdots+5576y-49)$
c_5, c_9	$(y^{22}+18y^{21}+\cdots+28y+4)(y^{107}+81y^{106}+\cdots+1044y-4)$
c_6	$(y^{22}+8y^{21}+\cdots-8y+1)$ $\cdot(y^{107}+31y^{106}+\cdots-214514614873y-11186658289)$
c_7, c_8, c_{11} c_{12}	$(y^{22}-28y^{21}+\cdots-28y+1)(y^{107}-129y^{106}+\cdots+5711y-169)$
c_{10}	$(y^{22}+3y^{21}+\cdots+7y+1)$ $\cdot(y^{107}+26y^{106}+\cdots-541032280y-16394401)$