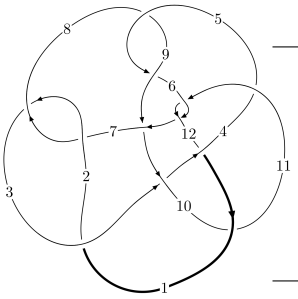
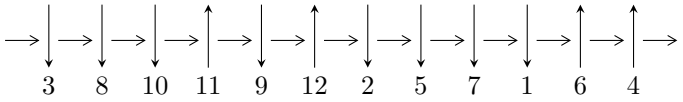
$12a_{0755}$ $(K12a_{0755})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 6.46942 \times 10^{1040} u^{179} - 2.62189 \times 10^{1042} u^{178} + \cdots + 1.27215 \times 10^{1044} b - 1.16593 \times 10^{1046}, \\ & - 8.30947 \times 10^{1047} u^{179} - 2.59048 \times 10^{1047} u^{178} + \cdots + 1.29887 \times 10^{1047} a + 1.26957 \times 10^{1051}, \\ & u^{180} + u^{179} + \cdots - 758u - 1021 \rangle \\ I_2^u = \langle & -1.16181 \times 10^{28} u^{44} + 9.07809 \times 10^{27} u^{43} + \cdots + 1.13258 \times 10^{27} b + 2.27919 \times 10^{28}, \\ & - 1.18648 \times 10^{36} u^{44} + 7.69318 \times 10^{35} u^{43} + \cdots + 1.37485 \times 10^{34} a + 1.64948 \times 10^{36}, \\ & u^{45} - 11u^{43} + \cdots + 2u - 1 \rangle \end{aligned}$$

* 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. $\boldsymbol{I_1^u = \langle 6.47 \times 10^{1040} u^{179} - 2.62 \times 10^{1042} u^{178} + \cdots + 1.27 \times 10^{1044} b - 1.17 \times 10^{1046},\ -8.31 \times 10^{1047} u^{179} - 2.59 \times 10^{1047} u^{178} + \cdots + 1.30 \times 10^{1047} a + 1.27 \times 10^{1051},\ u^{180} + u^{179} + \cdots - 758u - 1021 \rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 6.39748u^{179} + 1.99441u^{178} + \cdots + 6979.93u - 9774.44 \\ -0.000508542u^{179} + 0.0206099u^{178} + \cdots - 28.9465u + 91.6505 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 3.46652u^{179} + 1.06821u^{178} + \cdots + 3814.58u - 5370.56 \\ 1.36513u^{179} + 0.454516u^{178} + \cdots + 1443.96u - 1955.21 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 3.79544u^{179} + 1.22942u^{178} + \cdots + 4136.52u - 5632.08 \\ -0.148231u^{179} - 0.0220783u^{178} + \cdots - 66.4305u + 202.432 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 4.21091u^{179} + 1.19632u^{178} + \cdots + 4437.64u - 6570.69 \\ 0.00432269u^{179} + 0.135364u^{178} + \cdots + 176.418u + 164.437 \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} 2.11858u^{179} + 0.671018u^{178} + \cdots + 2262.14u - 3140.98 \\ 1.52863u^{179} + 0.536325u^{178} + \cdots + 1807.95u - 2288.67 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -1.56079u^{179} - 0.442388u^{178} + \cdots - 1483.13u + 2315.85 \\ -0.300723u^{179} - 0.129530u^{178} + \cdots - 383.029u + 399.106 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -1.24373u^{179} - 0.490347u^{178} + \cdots - 1742.93u + 1977.89 \\ -0.991737u^{179} - 0.256247u^{178} + \cdots - 952.526u + 1555.45 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 3.27816u^{179} + 1.13776u^{178} + \cdots + 3613.16u - 4770.78 \\ -0.535606u^{179} - 0.257279u^{178} + \cdots - 689.852u + 718.550 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.659722u^{179} - 0.371440u^{178} + \cdots - 607.760u + 665.189$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{180} + 71u^{179} + \cdots + 772300u + 22801$
c_2, c_7	$u^{180} + u^{179} + \cdots - 180u - 151$
c_3	$u^{180} + 2u^{179} + \cdots - 45u + 1$
c_4	$u^{180} - u^{179} + \cdots + 565923008u - 391286809$
c_5, c_8	$u^{180} + 2u^{179} + \cdots + 731401u + 82807$
c_6, c_{11}	$u^{180} + u^{179} + \cdots - 758u - 1021$
c_9	$u^{180} - 5u^{179} + \cdots - 3167561u - 887597$
c_{10}	$u^{180} - 14u^{179} + \cdots - 360019u + 18833$
c_{12}	$u^{180} + 12u^{179} + \cdots + 305u + 25$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{180} + 69y^{179} + \cdots + 393405409088y + 519885601$
c_2, c_7	$y^{180} - 71y^{179} + \cdots - 772300y + 22801$
c_3	$y^{180} + 26y^{179} + \cdots - 13y + 1$
c_4	$y^{180} - 17y^{179} + \cdots - 768200127417898812y + 153105366897402481$
c_5, c_8	$y^{180} - 90y^{179} + \cdots - 186489273469y + 6856999249$
c_6, c_{11}	$y^{180} - 95y^{179} + \cdots - 38394446y + 1042441$
c_9	$y^{180} + y^{179} + \cdots - 19198314861057y + 787828434409$
c_{10}	$y^{180} + 30y^{179} + \cdots + 35805184153y + 354681889$
c_{12}	$y^{180} + 156y^{178} + \cdots + 35575y + 625$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.544652+0.856933I$ $a=\ \ 0.353098-0.630739I$ $b=-0.888060+0.565610I$	$-2.18832-2.35646I$	0
$u=-0.544652-0.856933I$ $a=\ \ 0.353098+0.630739I$ $b=-0.888060-0.565610I$	$-2.18832+2.35646I$	0
$u=\ \ 0.858660+0.560485I$ $a=-1.10265-1.16702I$ $b=-0.617562+0.739902I$	$3.46099+1.89790I$	0
$u=\ \ 0.858660-0.560485I$ $a=-1.10265+1.16702I$ $b=-0.617562-0.739902I$	$3.46099-1.89790I$	0
$u=-0.967490+0.365847I$ $a=\ \ 1.08622-1.56153I$ $b=-0.37943+1.43434I$	$4.66054-3.17592I$	0
$u=-0.967490-0.365847I$ $a=\ \ 1.08622+1.56153I$ $b=-0.37943-1.43434I$	$4.66054+3.17592I$	0
$u=-0.861598+0.417149I$ $a=-0.05218-2.15259I$ $b=\ \ 0.934370+0.489622I$	$-1.54454-4.15543I$	0
$u=-0.861598-0.417149I$ $a=-0.05218+2.15259I$ $b=\ \ 0.934370-0.489622I$	$-1.54454+4.15543I$	0
$u=-0.962447+0.416308I$ $a=\ \ 0.77363+1.75507I$ $b=-1.200450-0.612984I$	$-5.53707-2.51693I$	0
$u=-0.962447-0.416308I$ $a=\ \ 0.77363-1.75507I$ $b=-1.200450+0.612984I$	$-5.53707+2.51693I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.999288+0.319199I$ $a=\ \ 0.818191-0.163003I$ $b=-0.744256+0.815866I$	$3.08831+3.86688I$	0
$u=-0.999288-0.319199I$ $a=\ \ 0.818191+0.163003I$ $b=-0.744256-0.815866I$	$3.08831-3.86688I$	0
$u=-0.771002+0.546425I$ $a=\ \ 0.47917+1.62861I$ $b=-1.335510-0.253643I$	$-4.16813+4.93589I$	0
$u=-0.771002-0.546425I$ $a=\ \ 0.47917-1.62861I$ $b=-1.335510+0.253643I$	$-4.16813-4.93589I$	0
$u=\ \ 1.046460+0.253603I$ $a=\ \ 0.57796+1.64382I$ $b=-0.63788-1.32819I$	$4.34051+4.64779I$	0
$u=\ \ 1.046460-0.253603I$ $a=\ \ 0.57796-1.64382I$ $b=-0.63788+1.32819I$	$4.34051-4.64779I$	0
$u=-1.026850+0.327802I$ $a=-0.61461-2.39323I$ $b=\ \ 1.131340+0.426064I$	$-0.65133-4.75263I$	0
$u=-1.026850-0.327802I$ $a=-0.61461+2.39323I$ $b=\ \ 1.131340-0.426064I$	$-0.65133+4.75263I$	0
$u=-0.399718+1.008750I$ $a=-0.436601-0.225868I$ $b=-0.960412+0.350083I$	$-2.21102+1.15028I$	0
$u=-0.399718-1.008750I$ $a=-0.436601+0.225868I$ $b=-0.960412-0.350083I$	$-2.21102-1.15028I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.030690 + 0.346978I$ $a = -1.11250 - 1.40448I$ $b = 0.47107 + 1.33545I$	$4.71254 - 1.28878I$	0
$u = 1.030690 - 0.346978I$ $a = -1.11250 + 1.40448I$ $b = 0.47107 - 1.33545I$	$4.71254 + 1.28878I$	0
$u = -0.795351 + 0.439349I$ $a = -0.394551 - 0.558444I$ $b = 1.60867 + 0.01926I$	$-4.15704 - 8.98961I$	0
$u = -0.795351 - 0.439349I$ $a = -0.394551 + 0.558444I$ $b = 1.60867 - 0.01926I$	$-4.15704 + 8.98961I$	0
$u = 0.658525 + 0.876293I$ $a = -0.448538 - 0.461235I$ $b = 1.077040 + 0.527167I$	$-2.49064 - 1.62266I$	0
$u = 0.658525 - 0.876293I$ $a = -0.448538 + 0.461235I$ $b = 1.077040 - 0.527167I$	$-2.49064 + 1.62266I$	0
$u = 1.057840 + 0.305101I$ $a = -0.914371 - 0.505553I$ $b = 0.653215 + 0.860470I$	$3.72825 + 1.22255I$	0
$u = 1.057840 - 0.305101I$ $a = -0.914371 + 0.505553I$ $b = 0.653215 - 0.860470I$	$3.72825 - 1.22255I$	0
$u = -0.706400 + 0.555166I$ $a = -0.144991 - 0.084069I$ $b = -1.015630 + 0.190671I$	$-1.82917 + 0.21089I$	0
$u = -0.706400 - 0.555166I$ $a = -0.144991 + 0.084069I$ $b = -1.015630 - 0.190671I$	$-1.82917 - 0.21089I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.833701 + 0.323163I$ $a = 0.115274 - 0.219384I$ $b = -1.46859 - 0.07425I$	$-1.61760 + 4.01420I$	0
$u = 0.833701 - 0.323163I$ $a = 0.115274 + 0.219384I$ $b = -1.46859 + 0.07425I$	$-1.61760 - 4.01420I$	0
$u = 0.134108 + 0.883852I$ $a = 0.164549 - 0.118172I$ $b = 1.165680 - 0.403607I$	$-1.93976 + 7.29622I$	0
$u = 0.134108 - 0.883852I$ $a = 0.164549 + 0.118172I$ $b = 1.165680 + 0.403607I$	$-1.93976 - 7.29622I$	0
$u = -0.954125 + 0.564822I$ $a = 0.94446 - 1.44653I$ $b = 0.769698 + 0.802098I$	$3.39181 - 7.30281I$	0
$u = -0.954125 - 0.564822I$ $a = 0.94446 + 1.44653I$ $b = 0.769698 - 0.802098I$	$3.39181 + 7.30281I$	0
$u = 0.818772 + 0.749291I$ $a = -0.326308 - 0.060149I$ $b = 1.181920 + 0.251409I$	$-2.81671 + 3.20015I$	0
$u = 0.818772 - 0.749291I$ $a = -0.326308 + 0.060149I$ $b = 1.181920 - 0.251409I$	$-2.81671 - 3.20015I$	0
$u = 0.816264 + 0.754277I$ $a = -0.10381 - 1.79852I$ $b = -0.897029 + 0.748328I$	$-2.01951 + 7.53940I$	0
$u = 0.816264 - 0.754277I$ $a = -0.10381 + 1.79852I$ $b = -0.897029 - 0.748328I$	$-2.01951 - 7.53940I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.896847+0.662839I$ $a=\ 0.08115-1.84945I$ $b=\ 0.759907+0.677854I$	$-1.18795-3.20557I$	0
$u=-0.896847-0.662839I$ $a=\ 0.08115+1.84945I$ $b=\ 0.759907-0.677854I$	$-1.18795+3.20557I$	0
$u=-0.950258+0.590530I$ $a=\ 0.21391-1.39805I$ $b=\ 0.616278-0.028724I$	$0.87027-4.86559I$	0
$u=-0.950258-0.590530I$ $a=\ 0.21391+1.39805I$ $b=\ 0.616278+0.028724I$	$0.87027+4.86559I$	0
$u=\ 1.073410+0.330573I$ $a=\ 0.88043-2.36486I$ $b=-1.211100+0.381137I$	$-1.87778+9.84922I$	0
$u=\ 1.073410-0.330573I$ $a=\ 0.88043+2.36486I$ $b=-1.211100-0.381137I$	$-1.87778-9.84922I$	0
$u=\ 0.799901+0.349974I$ $a=-0.63357+2.05521I$ $b=\ 1.032160-0.358952I$	$-1.66606-0.94848I$	0
$u=\ 0.799901-0.349974I$ $a=-0.63357-2.05521I$ $b=\ 1.032160+0.358952I$	$-1.66606+0.94848I$	0
$u=-0.871293+0.026419I$ $a=\ 0.38721-2.30721I$ $b=\ 1.007110+0.564764I$	$2.41709-4.96606I$	0
$u=-0.871293-0.026419I$ $a=\ 0.38721+2.30721I$ $b=\ 1.007110-0.564764I$	$2.41709+4.96606I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.866358 + 0.051079I$ $a = -0.44172 + 1.85510I$ $b = -1.062440 - 0.517302I$	$2.58754 + 0.87376I$	0
$u = 0.866358 - 0.051079I$ $a = -0.44172 - 1.85510I$ $b = -1.062440 + 0.517302I$	$2.58754 - 0.87376I$	0
$u = -0.817214 + 0.235498I$ $a = 0.84699 - 1.81913I$ $b = -0.126436 + 1.407170I$	$3.88389 + 0.48967I$	0
$u = -0.817214 - 0.235498I$ $a = 0.84699 + 1.81913I$ $b = -0.126436 - 1.407170I$	$3.88389 - 0.48967I$	0
$u = 0.452247 + 0.717887I$ $a = -0.56557 - 1.55660I$ $b = -1.029210 + 0.547501I$	$-3.64638 + 2.31168I$	0
$u = 0.452247 - 0.717887I$ $a = -0.56557 + 1.55660I$ $b = -1.029210 - 0.547501I$	$-3.64638 - 2.31168I$	0
$u = 0.837829 + 0.023977I$ $a = -0.33714 + 1.98624I$ $b = 0.004273 - 1.379410I$	$3.04547 - 3.16514I$	0
$u = 0.837829 - 0.023977I$ $a = -0.33714 - 1.98624I$ $b = 0.004273 + 1.379410I$	$3.04547 + 3.16514I$	0
$u = -1.149680 + 0.182280I$ $a = -0.38001 + 1.36524I$ $b = 0.518344 - 1.114800I$	$6.63013 + 0.67239I$	0
$u = -1.149680 - 0.182280I$ $a = -0.38001 - 1.36524I$ $b = 0.518344 + 1.114800I$	$6.63013 - 0.67239I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.085510 + 0.436676I$ $a = 0.74637 - 1.77078I$ $b = -1.084240 + 0.185420I$	$-5.28456 + 3.73767I$	0
$u = 1.085510 - 0.436676I$ $a = 0.74637 + 1.77078I$ $b = -1.084240 - 0.185420I$	$-5.28456 - 3.73767I$	0
$u = 1.161710 + 0.140485I$ $a = -1.031520 + 0.868086I$ $b = 0.541593 - 0.640642I$	$3.78976 - 0.23686I$	0
$u = 1.161710 - 0.140485I$ $a = -1.031520 - 0.868086I$ $b = 0.541593 + 0.640642I$	$3.78976 + 0.23686I$	0
$u = 1.060510 + 0.504574I$ $a = -0.04254 - 1.42720I$ $b = -1.39658 + 0.48115I$	$-1.08030 + 6.00401I$	0
$u = 1.060510 - 0.504574I$ $a = -0.04254 + 1.42720I$ $b = -1.39658 - 0.48115I$	$-1.08030 - 6.00401I$	0
$u = 1.138050 + 0.293481I$ $a = -1.01517 - 1.59294I$ $b = -1.002130 + 0.289534I$	$3.75272 + 3.81024I$	0
$u = 1.138050 - 0.293481I$ $a = -1.01517 + 1.59294I$ $b = -1.002130 - 0.289534I$	$3.75272 - 3.81024I$	0
$u = 0.364225 + 0.738569I$ $a = 0.162662 + 0.332479I$ $b = 1.278100 + 0.526116I$	$-0.98972 - 5.96088I$	0
$u = 0.364225 - 0.738569I$ $a = 0.162662 - 0.332479I$ $b = 1.278100 - 0.526116I$	$-0.98972 + 5.96088I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.065475+0.809888I$ $a=-0.976716+0.453899I$ $b=-0.278519-0.709195I$	$2.17617+3.58604I$	0
$u=-0.065475-0.809888I$ $a=-0.976716-0.453899I$ $b=-0.278519+0.709195I$	$2.17617-3.58604I$	0
$u=0.150530+0.793266I$ $a=1.056400+0.708005I$ $b=0.176530-0.865905I$	$0.72737-9.16943I$	0
$u=0.150530-0.793266I$ $a=1.056400-0.708005I$ $b=0.176530+0.865905I$	$0.72737+9.16943I$	0
$u=0.520582+0.609539I$ $a=0.104515+1.156690I$ $b=1.289700+0.149462I$	$-2.75317-1.62014I$	0
$u=0.520582-0.609539I$ $a=0.104515-1.156690I$ $b=1.289700-0.149462I$	$-2.75317+1.62014I$	0
$u=0.331232+1.159550I$ $a=-0.224162+0.183102I$ $b=-1.126710-0.527863I$	$-0.28241-8.29945I$	0
$u=0.331232-1.159550I$ $a=-0.224162-0.183102I$ $b=-1.126710+0.527863I$	$-0.28241+8.29945I$	0
$u=-1.120790+0.459988I$ $a=0.117282-0.686946I$ $b=-0.509589+0.541882I$	$-1.138300-0.793069I$	0
$u=-1.120790-0.459988I$ $a=0.117282+0.686946I$ $b=-0.509589-0.541882I$	$-1.138300+0.793069I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.324228+0.711456I$ $a=-0.347251+0.170590I$ $b=-1.123800+0.568451I$	$-0.323740+1.330340I$	0
$u=-0.324228-0.711456I$ $a=-0.347251-0.170590I$ $b=-1.123800-0.568451I$	$-0.323740-1.330340I$	0
$u=-0.294571+1.183130I$ $a=0.139200+0.241626I$ $b=1.197000-0.555546I$	$-2.2759+14.3484I$	0
$u=-0.294571-1.183130I$ $a=0.139200-0.241626I$ $b=1.197000+0.555546I$	$-2.2759-14.3484I$	0
$u=1.140550+0.433144I$ $a=0.226578+1.274700I$ $b=-0.102636-1.152640I$	$-0.74537+6.46765I$	0
$u=1.140550-0.433144I$ $a=0.226578-1.274700I$ $b=-0.102636+1.152640I$	$-0.74537-6.46765I$	0
$u=-0.147509+0.756671I$ $a=0.164754-0.749718I$ $b=-0.196299+0.593717I$	$-1.55919+1.87982I$	0
$u=-0.147509-0.756671I$ $a=0.164754+0.749718I$ $b=-0.196299-0.593717I$	$-1.55919-1.87982I$	0
$u=-1.192050+0.308145I$ $a=0.80750-1.88074I$ $b=0.977319+0.384239I$	$3.52201-9.19808I$	0
$u=-1.192050-0.308145I$ $a=0.80750+1.88074I$ $b=0.977319-0.384239I$	$3.52201+9.19808I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.108610 + 0.555508I$ $a = -0.00822 - 1.82667I$ $b = -1.39725 + 0.76974I$	$1.21209 + 10.86510I$	0
$u = 1.108610 - 0.555508I$ $a = -0.00822 + 1.82667I$ $b = -1.39725 - 0.76974I$	$1.21209 - 10.86510I$	0
$u = -1.113840 + 0.547780I$ $a = 0.17282 - 1.84492I$ $b = 1.28147 + 0.79434I$	$1.96870 - 6.13886I$	0
$u = -1.113840 - 0.547780I$ $a = 0.17282 + 1.84492I$ $b = 1.28147 - 0.79434I$	$1.96870 + 6.13886I$	0
$u = -0.049100 + 1.246410I$ $a = 0.331163 - 0.515682I$ $b = 1.073800 + 0.288692I$	$-5.24445 - 4.67701I$	0
$u = -0.049100 - 1.246410I$ $a = 0.331163 + 0.515682I$ $b = 1.073800 - 0.288692I$	$-5.24445 + 4.67701I$	0
$u = 1.218860 + 0.285883I$ $a = -0.619445 - 0.951208I$ $b = 0.351749 + 0.764126I$	$2.80158 + 1.74662I$	0
$u = 1.218860 - 0.285883I$ $a = -0.619445 + 0.951208I$ $b = 0.351749 - 0.764126I$	$2.80158 - 1.74662I$	0
$u = -0.713504 + 0.190350I$ $a = -0.836589 + 0.243306I$ $b = 1.67967 - 0.27177I$	$-6.73735 - 0.46894I$	0
$u = -0.713504 - 0.190350I$ $a = -0.836589 - 0.243306I$ $b = 1.67967 + 0.27177I$	$-6.73735 + 0.46894I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.226170 + 0.361886I$ $a = -0.579858 - 1.011020I$ $b = 0.394373 + 0.753679I$	$2.78506 + 1.79914I$	0
$u = 1.226170 - 0.361886I$ $a = -0.579858 + 1.011020I$ $b = 0.394373 - 0.753679I$	$2.78506 - 1.79914I$	0
$u = -0.481697 + 1.199320I$ $a = -0.366110 + 0.014670I$ $b = -1.019630 - 0.271133I$	$-0.167493 - 0.773187I$	0
$u = -0.481697 - 1.199320I$ $a = -0.366110 - 0.014670I$ $b = -1.019630 + 0.271133I$	$-0.167493 + 0.773187I$	0
$u = -1.240270 + 0.375598I$ $a = -0.590068 + 1.161510I$ $b = -0.765191 - 0.506035I$	$4.80435 + 5.10558I$	0
$u = -1.240270 - 0.375598I$ $a = -0.590068 - 1.161510I$ $b = -0.765191 + 0.506035I$	$4.80435 - 5.10558I$	0
$u = 1.193550 + 0.521377I$ $a = 0.636367 + 1.210830I$ $b = -0.391801 - 1.229500I$	$3.7852 + 14.0444I$	0
$u = 1.193550 - 0.521377I$ $a = 0.636367 - 1.210830I$ $b = -0.391801 + 1.229500I$	$3.7852 - 14.0444I$	0
$u = 0.691655 + 0.065228I$ $a = -0.60439 + 4.07516I$ $b = 0.617085 - 0.113526I$	$1.73389 - 1.99583I$	0
$u = 0.691655 - 0.065228I$ $a = -0.60439 - 4.07516I$ $b = 0.617085 + 0.113526I$	$1.73389 + 1.99583I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.209970+0.495005I$ $a=-0.568489+1.091390I$ $b=\ \ 0.380450-1.129140I$	$5.52195-8.33556I$	0
$u=-1.209970-0.495005I$ $a=-0.568489-1.091390I$ $b=\ \ 0.380450+1.129140I$	$5.52195+8.33556I$	0
$u=-1.227000+0.456014I$ $a=\ \ 0.424924-1.227150I$ $b=-0.301274+0.756898I$	$1.68321-6.31198I$	0
$u=-1.227000-0.456014I$ $a=\ \ 0.424924+1.227150I$ $b=-0.301274-0.756898I$	$1.68321+6.31198I$	0
$u=-0.386612+1.251190I$ $a=\ \ 0.1371510-0.0303294I$ $b=\ \ 1.142440-0.340319I$	$-7.41357+5.62113I$	0
$u=-0.386612-1.251190I$ $a=\ \ 0.1371510+0.0303294I$ $b=\ \ 1.142440+0.340319I$	$-7.41357-5.62113I$	0
$u=\ \ 1.052560+0.781226I$ $a=-0.029628-0.774611I$ $b=-0.785460-0.177089I$	$0.85874-1.38845I$	0
$u=\ \ 1.052560-0.781226I$ $a=-0.029628+0.774611I$ $b=-0.785460+0.177089I$	$0.85874+1.38845I$	0
$u=\ \ 1.248770+0.406970I$ $a=\ \ 0.377785+1.220990I$ $b=\ \ 0.864035-0.549920I$	$6.11331+0.81908I$	0
$u=\ \ 1.248770-0.406970I$ $a=\ \ 0.377785-1.220990I$ $b=\ \ 0.864035+0.549920I$	$6.11331-0.81908I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.593551+0.329826I$ $a=-0.781169+0.161969I$ $b=-1.304310+0.258713I$	$-2.01894+1.79194I$	0
$u=-0.593551-0.329826I$ $a=-0.781169-0.161969I$ $b=-1.304310-0.258713I$	$-2.01894-1.79194I$	0
$u=-0.678260+0.011891I$ $a=\ \ 0.13191+4.52530I$ $b=-0.579418-0.051036I$	$1.01871+7.54583I$	0
$u=-0.678260-0.011891I$ $a=\ \ 0.13191-4.52530I$ $b=-0.579418+0.051036I$	$1.01871-7.54583I$	0
$u=-1.319270+0.121327I$ $a=\ \ 1.079920+0.214959I$ $b=-0.609189-0.261060I$	$4.44448-4.59561I$	0
$u=-1.319270-0.121327I$ $a=\ \ 1.079920-0.214959I$ $b=-0.609189+0.261060I$	$4.44448+4.59561I$	0
$u=-1.205100+0.562996I$ $a=\ \ 0.21180-1.60483I$ $b=\ \ 1.112730+0.591882I$	$0.58513-6.86715I$	0
$u=-1.205100-0.562996I$ $a=\ \ 0.21180+1.60483I$ $b=\ \ 1.112730-0.591882I$	$0.58513+6.86715I$	0
$u=-1.259890+0.471549I$ $a=\ \ 0.38091+1.53121I$ $b=-1.24033-0.78082I$	$2.11340-12.00400I$	0
$u=-1.259890-0.471549I$ $a=\ \ 0.38091-1.53121I$ $b=-1.24033+0.78082I$	$2.11340+12.00400I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.304650+0.350565I$ $a=-0.041436+0.500583I$ $b=\ \ 0.183841-0.578143I$	$5.07672-4.55802I$	0
$u=-1.304650-0.350565I$ $a=-0.041436-0.500583I$ $b=\ \ 0.183841+0.578143I$	$5.07672+4.55802I$	0
$u=\ \ 1.273440+0.460633I$ $a=-0.25966+1.39170I$ $b=\ \ 1.188750-0.701756I$	$4.38435+5.80308I$	0
$u=\ \ 1.273440-0.460633I$ $a=-0.25966-1.39170I$ $b=\ \ 1.188750+0.701756I$	$4.38435-5.80308I$	0
$u=\ \ 0.592233+0.254799I$ $a=\ \ 1.034420+0.286727I$ $b=\ \ 1.41788+0.26927I$	$-3.56673-7.09378I$	0
$u=\ \ 0.592233-0.254799I$ $a=\ \ 1.034420-0.286727I$ $b=\ \ 1.41788-0.26927I$	$-3.56673+7.09378I$	0
$u=-0.438925+1.288340I$ $a=\ \ 0.284951-0.377729I$ $b=\ \ 0.943116+0.037674I$	$-4.88202-4.59101I$	0
$u=-0.438925-1.288340I$ $a=\ \ 0.284951+0.377729I$ $b=\ \ 0.943116-0.037674I$	$-4.88202+4.59101I$	0
$u=-1.253320+0.549442I$ $a=\ \ 0.147960+0.877975I$ $b=-1.201430-0.393370I$	$-1.77375-1.69819I$	0
$u=-1.253320-0.549442I$ $a=\ \ 0.147960-0.877975I$ $b=-1.201430+0.393370I$	$-1.77375+1.69819I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.291275 + 0.529041I$ $a = -0.663281 - 0.376901I$ $b = 0.020025 + 0.281797I$	$-0.074789 + 1.289980I$	0
$u = 0.291275 - 0.529041I$ $a = -0.663281 + 0.376901I$ $b = 0.020025 - 0.281797I$	$-0.074789 - 1.289980I$	0
$u = -0.599334$ $a = -0.221794$ $b = -0.605276$	-1.29685	-7.06650
$u = -1.30699 + 0.56082I$ $a = 0.06737 - 1.64485I$ $b = 1.099850 + 0.576283I$	$0.69822 - 6.82682I$	0
$u = -1.30699 - 0.56082I$ $a = 0.06737 + 1.64485I$ $b = 1.099850 - 0.576283I$	$0.69822 + 6.82682I$	0
$u = -1.42814 + 0.17262I$ $a = 1.253160 - 0.413525I$ $b = -0.790425 + 0.228088I$	$4.60901 - 1.47835I$	0
$u = -1.42814 - 0.17262I$ $a = 1.253160 + 0.413525I$ $b = -0.790425 - 0.228088I$	$4.60901 + 1.47835I$	0
$u = 1.23812 + 0.74310I$ $a = 0.236088 + 0.997160I$ $b = 1.166740 - 0.483369I$	$2.22072 + 8.84075I$	0
$u = 1.23812 - 0.74310I$ $a = 0.236088 - 0.997160I$ $b = 1.166740 + 0.483369I$	$2.22072 - 8.84075I$	0
$u = 1.42727 + 0.21994I$ $a = -1.167730 - 0.626648I$ $b = 0.730489 + 0.407607I$	$4.34258 + 5.84793I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.42727 - 0.21994I$ $a = -1.167730 + 0.626648I$ $b = 0.730489 - 0.407607I$	$4.34258 - 5.84793I$	0
$u = 1.27979 + 0.67248I$ $a = 0.06824 + 1.53398I$ $b = 1.24950 - 0.68575I$	$2.7498 + 14.7886I$	0
$u = 1.27979 - 0.67248I$ $a = 0.06824 - 1.53398I$ $b = 1.24950 + 0.68575I$	$2.7498 - 14.7886I$	0
$u = -1.27489 + 0.70424I$ $a = 0.055529 + 1.291130I$ $b = -1.29854 - 0.57746I$	$-4.50565 - 12.42870I$	0
$u = -1.27489 - 0.70424I$ $a = 0.055529 - 1.291130I$ $b = -1.29854 + 0.57746I$	$-4.50565 + 12.42870I$	0
$u = -1.29465 + 0.67213I$ $a = 0.01201 + 1.60193I$ $b = -1.28378 - 0.71719I$	$0.8989 - 20.8866I$	0
$u = -1.29465 - 0.67213I$ $a = 0.01201 - 1.60193I$ $b = -1.28378 + 0.71719I$	$0.8989 + 20.8866I$	0
$u = -1.47837 + 0.12702I$ $a = -0.463923 + 0.628937I$ $b = 0.695945 - 0.547155I$	$6.61268 + 3.58152I$	0
$u = -1.47837 - 0.12702I$ $a = -0.463923 - 0.628937I$ $b = 0.695945 + 0.547155I$	$6.61268 - 3.58152I$	0
$u = 1.26031 + 0.84624I$ $a = -0.080182 - 1.182690I$ $b = -1.050960 + 0.478017I$	$-2.79158 + 4.88875I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.26031 - 0.84624I$ $a = -0.080182 + 1.182690I$ $b = -1.050960 - 0.478017I$	$-2.79158 - 4.88875I$	0
$u = 0.65018 + 1.37798I$ $a = 0.295851 - 0.264637I$ $b = 0.927954 + 0.265417I$	$-5.00811 + 2.95519I$	0
$u = 0.65018 - 1.37798I$ $a = 0.295851 + 0.264637I$ $b = 0.927954 - 0.265417I$	$-5.00811 - 2.95519I$	0
$u = 0.320300 + 0.335282I$ $a = 0.952870 - 0.615613I$ $b = 1.373380 - 0.000146I$	$-7.45657 - 0.11347I$	$-15.8842 - 2.4193I$
$u = 0.320300 - 0.335282I$ $a = 0.952870 + 0.615613I$ $b = 1.373380 + 0.000146I$	$-7.45657 + 0.11347I$	$-15.8842 + 2.4193I$
$u = 1.41200 + 0.64071I$ $a = 0.14302 - 1.52460I$ $b = -1.136100 + 0.562878I$	$-0.75306 + 11.29840I$	0
$u = 1.41200 - 0.64071I$ $a = 0.14302 + 1.52460I$ $b = -1.136100 - 0.562878I$	$-0.75306 - 11.29840I$	0
$u = -0.27855 + 1.56130I$ $a = -0.270593 - 0.004899I$ $b = -0.989128 - 0.239832I$	$-0.175662 - 0.753623I$	0
$u = -0.27855 - 1.56130I$ $a = -0.270593 + 0.004899I$ $b = -0.989128 + 0.239832I$	$-0.175662 + 0.753623I$	0
$u = 1.58657 + 0.17604I$ $a = 0.619396 + 0.478820I$ $b = -0.863712 - 0.452530I$	$4.53410 - 9.04185I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.58657 - 0.17604I$ $a = 0.619396 - 0.478820I$ $b = -0.863712 + 0.452530I$	$4.53410 + 9.04185I$	0
$u = -0.320510 + 0.222013I$ $a = 0.81796 - 3.44204I$ $b = -0.561686 - 0.178337I$	$-3.52626 - 2.85244I$	$-11.74888 + 3.06766I$
$u = -0.320510 - 0.222013I$ $a = 0.81796 + 3.44204I$ $b = -0.561686 + 0.178337I$	$-3.52626 + 2.85244I$	$-11.74888 - 3.06766I$
$u = 0.291806 + 0.203956I$ $a = -0.74153 + 1.42412I$ $b = 0.118604 + 0.680726I$	$2.72864 + 1.35545I$	$0.64437 - 3.50808I$
$u = 0.291806 - 0.203956I$ $a = -0.74153 - 1.42412I$ $b = 0.118604 - 0.680726I$	$2.72864 - 1.35545I$	$0.64437 + 3.50808I$
$u = -0.170166 + 0.276360I$ $a = -0.79459 + 1.35427I$ $b = -0.284913 + 0.796767I$	$2.13193 + 3.74371I$	$-1.07054 - 3.84485I$
$u = -0.170166 - 0.276360I$ $a = -0.79459 - 1.35427I$ $b = -0.284913 - 0.796767I$	$2.13193 - 3.74371I$	$-1.07054 + 3.84485I$
$u = 0.097325 + 0.295460I$ $a = 3.93808 + 0.91084I$ $b = -0.488338 - 0.529244I$	$-3.56616 - 2.81979I$	$-10.23826 + 3.01852I$
$u = 0.097325 - 0.295460I$ $a = 3.93808 - 0.91084I$ $b = -0.488338 + 0.529244I$	$-3.56616 + 2.81979I$	$-10.23826 - 3.01852I$
$u = 1.89457$ $a = 0.279307$ $b = -0.730326$	1.17186	0

II. $I_2^u = \langle -1.16 \times 10^{28} u^{44} + 9.08 \times 10^{27} u^{43} + \cdots + 1.13 \times 10^{27} b + 2.28 \times 10^{28},\ -1.19 \times 10^{36} u^{44} + 7.69 \times 10^{35} u^{43} + \cdots + 1.37 \times 10^{34} a + 1.65 \times 10^{36},\ u^{45} - 11u^{43} + \cdots + 2u - 1 \rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 86.2989u^{44} - 55.9564u^{43} + \cdots + 358.488u - 119.975 \\ 10.2581u^{44} - 8.01540u^{43} + \cdots + 57.0770u - 20.1238 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 34.5136u^{44} - 25.0482u^{43} + \cdots + 103.200u - 43.8948 \\ 34.2768u^{44} - 19.5003u^{43} + \cdots + 170.679u - 51.0320 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 133.366u^{44} - 90.7378u^{43} + \cdots + 472.849u - 137.475 \\ 6.54547u^{44} - 1.27841u^{43} + \cdots + 49.7423u - 12.5365 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -169.480u^{44} + 104.741u^{43} + \cdots - 753.380u + 225.998 \\ 20.4564u^{44} - 6.85171u^{43} + \cdots + 8.53235u - 0.306235 \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} 63.2380u^{44} - 43.1812u^{43} + \cdots + 148.906u - 45.4585 \\ 76.6733u^{44} - 48.8350u^{43} + \cdots + 373.686u - 104.553 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -211.403u^{44} + 134.826u^{43} + \cdots - 869.014u + 262.728 \\ 176.889u^{44} - 109.778u^{43} + \cdots + 750.814u - 220.833 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 168.051u^{44} - 117.513u^{43} + \cdots + 639.729u - 186.099 \\ -162.248u^{44} + 93.5229u^{43} + \cdots - 896.172u + 248.336 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 253.015u^{44} - 93.7555u^{43} + \cdots + 1374.65u - 343.733 \\ -114.616u^{44} + 1.83663u^{43} + \cdots - 830.116u + 178.406 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 156.795u^{44} - 98.4542u^{43} + \cdots + 1159.09u - 320.528$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{45} - 18u^{44} + \cdots + 16u - 1$
c_2	$u^{45} - 9u^{43} + \cdots - 2u + 1$
c_3	$u^{45} - u^{44} + \cdots + 13u + 1$
c_4	$u^{45} + 2u^{44} + \cdots + 260u - 25$
c_5	$u^{45} + 3u^{44} + \cdots - 3u - 1$
c_6	$u^{45} - 11u^{43} + \cdots + 2u - 1$
c_7	$u^{45} - 9u^{43} + \cdots - 2u - 1$
c_8	$u^{45} - 3u^{44} + \cdots - 3u + 1$
c_9	$u^{45} + 6u^{44} + \cdots + 25u - 1$
c_{10}	$u^{45} - 3u^{44} + \cdots - 5u + 1$
c_{11}	$u^{45} - 11u^{43} + \cdots + 2u + 1$
c_{12}	$u^{45} + u^{44} + \cdots + 5u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{45} + 10y^{44} + \cdots - 68y - 1$
c_2, c_7	$y^{45} - 18y^{44} + \cdots + 16y - 1$
c_3	$y^{45} + 23y^{44} + \cdots - 195y - 1$
c_4	$y^{45} + 12y^{44} + \cdots + 31200y - 625$
c_5, c_8	$y^{45} - 21y^{44} + \cdots + 41y - 1$
c_6, c_{11}	$y^{45} - 22y^{44} + \cdots + 34y - 1$
c_9	$y^{45} + 10y^{44} + \cdots + 1005y - 1$
c_{10}	$y^{45} + 7y^{44} + \cdots - 13y - 1$
c_{12}	$y^{45} - 7y^{44} + \cdots + y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.964090 + 0.242803I$ $a = -0.282390 - 1.221290I$ $b = 0.125420 + 1.260860I$	$3.59003 - 2.31975I$	$-60.10 + 1.041186I$
$u = 0.964090 - 0.242803I$ $a = -0.282390 + 1.221290I$ $b = 0.125420 - 1.260860I$	$3.59003 + 2.31975I$	$-60.10 - 1.041186I$
$u = -0.959146 + 0.242534I$ $a = 0.79059 - 1.20853I$ $b = -0.216428 + 1.271450I$	$4.58620 - 2.19985I$	$3.66329 + 1.69112I$
$u = -0.959146 - 0.242534I$ $a = 0.79059 + 1.20853I$ $b = -0.216428 - 1.271450I$	$4.58620 + 2.19985I$	$3.66329 - 1.69112I$
$u = -0.957637 + 0.243502I$ $a = 0.97640 - 1.78302I$ $b = -0.243427 + 1.258260I$	$4.58120 + 0.23791I$	$4.57362 + 3.33921I$
$u = -0.957637 - 0.243502I$ $a = 0.97640 + 1.78302I$ $b = -0.243427 - 1.258260I$	$4.58120 - 0.23791I$	$4.57362 - 3.33921I$
$u = 0.949906 + 0.244837I$ $a = -0.70966 - 1.97587I$ $b = 0.359179 + 1.255660I$	$3.54465 + 4.28953I$	$-3.05990 - 6.63060I$
$u = 0.949906 - 0.244837I$ $a = -0.70966 + 1.97587I$ $b = 0.359179 - 1.255660I$	$3.54465 - 4.28953I$	$-3.05990 + 6.63060I$
$u = 0.858689 + 0.364218I$ $a = 0.37469 - 2.52586I$ $b = -0.691733 + 0.542090I$	$-2.97736 + 3.87281I$	$-8.56679 - 6.81581I$
$u = 0.858689 - 0.364218I$ $a = 0.37469 + 2.52586I$ $b = -0.691733 - 0.542090I$	$-2.97736 - 3.87281I$	$-8.56679 + 6.81581I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.806122 + 0.740689I$ $a = 0.035583 - 0.558260I$ $b = 0.896200 + 0.350471I$	$-2.61437 + 0.39302I$	$-12.77020 + 0.I$
$u = 0.806122 - 0.740689I$ $a = 0.035583 + 0.558260I$ $b = 0.896200 - 0.350471I$	$-2.61437 - 0.39302I$	$-12.77020 + 0.I$
$u = -1.007360 + 0.675789I$ $a = -0.07622 - 1.46566I$ $b = 1.037820 + 0.458785I$	$-3.09532 - 3.77074I$	0
$u = -1.007360 - 0.675789I$ $a = -0.07622 + 1.46566I$ $b = 1.037820 - 0.458785I$	$-3.09532 + 3.77074I$	0
$u = 1.097890 + 0.583150I$ $a = -0.55311 - 1.32514I$ $b = -1.097110 + 0.535934I$	$1.61900 + 7.74785I$	0
$u = 1.097890 - 0.583150I$ $a = -0.55311 + 1.32514I$ $b = -1.097110 - 0.535934I$	$1.61900 - 7.74785I$	0
$u = 0.702954 + 0.220152I$ $a = -0.98333 - 4.17715I$ $b = -0.605929 + 0.254052I$	$1.03267 + 8.07498I$	$-4.5283 - 14.8644I$
$u = 0.702954 - 0.220152I$ $a = -0.98333 + 4.17715I$ $b = -0.605929 - 0.254052I$	$1.03267 - 8.07498I$	$-4.5283 + 14.8644I$
$u = 1.183690 + 0.484351I$ $a = -0.07097 - 1.83813I$ $b = -1.214500 + 0.618082I$	$1.06853 + 5.96165I$	0
$u = 1.183690 - 0.484351I$ $a = -0.07097 + 1.83813I$ $b = -1.214500 - 0.618082I$	$1.06853 - 5.96165I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.220269 + 1.313360I$ $a = -0.478877 - 0.443868I$ $b = -0.981482 + 0.245749I$	$-5.08415 + 5.15610I$	0
$u = 0.220269 - 1.313360I$ $a = -0.478877 + 0.443868I$ $b = -0.981482 - 0.245749I$	$-5.08415 - 5.15610I$	0
$u = -1.235450 + 0.498092I$ $a = -0.23231 - 1.70238I$ $b = 1.259850 + 0.569906I$	$-0.08083 - 10.35810I$	0
$u = -1.235450 - 0.498092I$ $a = -0.23231 + 1.70238I$ $b = 1.259850 - 0.569906I$	$-0.08083 + 10.35810I$	0
$u = -0.629391 + 0.207489I$ $a = 1.71578 - 3.81793I$ $b = 0.661688 + 0.198168I$	$1.61016 - 2.57258I$	$-4.81084 + 7.97752I$
$u = -0.629391 - 0.207489I$ $a = 1.71578 + 3.81793I$ $b = 0.661688 - 0.198168I$	$1.61016 + 2.57258I$	$-4.81084 - 7.97752I$
$u = -1.345380 + 0.100998I$ $a = 0.997625 - 0.770324I$ $b = -0.481044 + 0.076544I$	$5.05391 - 2.17658I$	0
$u = -1.345380 - 0.100998I$ $a = 0.997625 + 0.770324I$ $b = -0.481044 - 0.076544I$	$5.05391 + 2.17658I$	0
$u = -1.350870 + 0.241579I$ $a = 0.947104 + 0.059571I$ $b = -0.534258 + 0.163498I$	$4.40375 - 3.96967I$	0
$u = -1.350870 - 0.241579I$ $a = 0.947104 - 0.059571I$ $b = -0.534258 - 0.163498I$	$4.40375 + 3.96967I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.617358+0.063420I$ $a=\ \ 0.654963-0.628792I$ $b=-1.58691+0.16000I$	$-6.69561-0.16039I$	$-3.39390-7.52063I$
$u=-0.617358-0.063420I$ $a=\ \ 0.654963+0.628792I$ $b=-1.58691-0.16000I$	$-6.69561+0.16039I$	$-3.39390+7.52063I$
$u=\ \ 1.378970+0.044639I$ $a=-0.526287-0.941899I$ $b=\ \ 0.496159+0.031157I$	$4.14930+7.09487I$	0
$u=\ \ 1.378970-0.044639I$ $a=-0.526287+0.941899I$ $b=\ \ 0.496159-0.031157I$	$4.14930-7.09487I$	0
$u=-0.570882+0.107070I$ $a=-0.424254+1.302530I$ $b=-1.45458+0.20173I$	$-3.34994+7.50143I$	$-2.66711-12.05748I$
$u=-0.570882-0.107070I$ $a=-0.424254-1.302530I$ $b=-1.45458-0.20173I$	$-3.34994-7.50143I$	$-2.66711+12.05748I$
$u=-0.63633+1.34818I$ $a=-0.181093-0.243156I$ $b=-0.925507+0.236497I$	$-4.86929-3.18143I$	0
$u=-0.63633-1.34818I$ $a=-0.181093+0.243156I$ $b=-0.925507-0.236497I$	$-4.86929+3.18143I$	0
$u=\ \ 0.458593+0.169938I$ $a=\ \ 0.40116+1.70926I$ $b=\ \ 1.271790+0.188973I$	$-1.77503-2.48008I$	$-3.28876+5.08121I$
$u=\ \ 0.458593-0.169938I$ $a=\ \ 0.40116-1.70926I$ $b=\ \ 1.271790-0.188973I$	$-1.77503+2.48008I$	$-3.28876-5.08121I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.250198 + 0.312579I$ $a = 1.48588 + 1.84248I$ $b = 1.086840 + 0.181478I$	$-1.85665 - 2.39705I$	$-3.88504 + 4.19191I$
$u = 0.250198 - 0.312579I$ $a = 1.48588 - 1.84248I$ $b = 1.086840 - 0.181478I$	$-1.85665 + 2.39705I$	$-3.88504 - 4.19191I$
$u = -0.44349 + 1.66479I$ $a = 0.250840 - 0.021781I$ $b = 1.004950 + 0.227398I$	$-0.185308 - 0.732082I$	0
$u = -0.44349 - 1.66479I$ $a = 0.250840 + 0.021781I$ $b = 1.004950 - 0.227398I$	$-0.185308 + 0.732082I$	0
$u = 1.76384$ $a = -0.224208$ $b = 0.666001$	1.26869	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{45}-18u^{44}+\cdots+16u-1)(u^{180}+71u^{179}+\cdots+772300u+22801)$
c_2	$(u^{45}-9u^{43}+\cdots-2u+1)(u^{180}+u^{179}+\cdots-180u-151)$
c_3	$(u^{45}-u^{44}+\cdots+13u+1)(u^{180}+2u^{179}+\cdots-45u+1)$
c_4	$(u^{45}+2u^{44}+\cdots+260u-25)$ $\cdot(u^{180}-u^{179}+\cdots+565923008u-391286809)$
c_5	$(u^{45}+3u^{44}+\cdots-3u-1)(u^{180}+2u^{179}+\cdots+731401u+82807)$
c_6	$(u^{45}-11u^{43}+\cdots+2u-1)(u^{180}+u^{179}+\cdots-758u-1021)$
c_7	$(u^{45}-9u^{43}+\cdots-2u-1)(u^{180}+u^{179}+\cdots-180u-151)$
c_8	$(u^{45}-3u^{44}+\cdots-3u+1)(u^{180}+2u^{179}+\cdots+731401u+82807)$
c_9	$(u^{45}+6u^{44}+\cdots+25u-1)(u^{180}-5u^{179}+\cdots-3167561u-887597)$
c_{10}	$(u^{45}-3u^{44}+\cdots-5u+1)(u^{180}-14u^{179}+\cdots-360019u+18833)$
c_{11}	$(u^{45}-11u^{43}+\cdots+2u+1)(u^{180}+u^{179}+\cdots-758u-1021)$
c_{12}	$(u^{45}+u^{44}+\cdots+5u-1)(u^{180}+12u^{179}+\cdots+305u+25)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{45}+10y^{44}+\cdots-68y-1)$ $\cdot(y^{180}+69y^{179}+\cdots+393405409088y+519885601)$
c_2, c_7	$(y^{45}-18y^{44}+\cdots+16y-1)(y^{180}-71y^{179}+\cdots-772300y+22801)$
c_3	$(y^{45}+23y^{44}+\cdots-195y-1)(y^{180}+26y^{179}+\cdots-13y+1)$
c_4	$(y^{45}+12y^{44}+\cdots+31200y-625)$ $\cdot(y^{180}-17y^{179}+\cdots-768200127417898812y+153105366897402481)$
c_5, c_8	$(y^{45}-21y^{44}+\cdots+41y-1)$ $\cdot(y^{180}-90y^{179}+\cdots-186489273469y+6856999249)$
c_6, c_{11}	$(y^{45}-22y^{44}+\cdots+34y-1)$ $\cdot(y^{180}-95y^{179}+\cdots-38394446y+1042441)$
c_9	$(y^{45}+10y^{44}+\cdots+1005y-1)$ $\cdot(y^{180}+y^{179}+\cdots-19198314861057y+787828434409)$
c_{10}	$(y^{45}+7y^{44}+\cdots-13y-1)$ $\cdot(y^{180}+30y^{179}+\cdots+35805184153y+354681889)$
c_{12}	$(y^{45}-7y^{44}+\cdots+y-1)(y^{180}+156y^{178}+\cdots+35575y+625)$