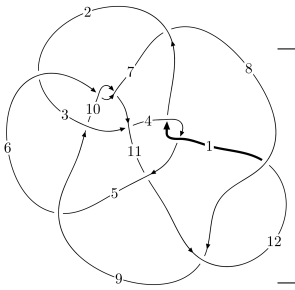
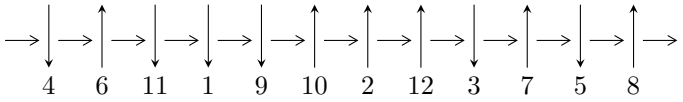
$12a_{0992}$ $(K12a_{0992})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -6.71059 \times 10^{901} u^{172} + 5.27349 \times 10^{901} u^{171} + \cdots + 5.37860 \times 10^{901} b - 2.15607 \times 10^{903}, \\ & 6.55390 \times 10^{902} u^{172} - 1.60404 \times 10^{903} u^{171} + \cdots + 1.23708 \times 10^{903} a + 7.01893 \times 10^{904}, \\ & u^{173} - 61 u^{171} + \cdots - 1173 u + 23 \rangle \\ I_2^u = \langle & 1.36185 \times 10^{44} u^{40} - 3.58124 \times 10^{43} u^{39} + \cdots + 3.88409 \times 10^{43} b - 1.89538 \times 10^{45}, \\ & 1.79661 \times 10^{43} u^{40} + 1.30822 \times 10^{43} u^{39} + \cdots + 1.47328 \times 10^{43} a - 5.14471 \times 10^{44}, \ u^{41} - u^{40} + \cdots + 29 u + 1 \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 214 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. $\boldsymbol{I_1^u = \langle -6.71 \times 10^{901} u^{172} + 5.27 \times 10^{901} u^{171} + \cdots + 5.38 \times 10^{901} b - 2.16 \times 10^{903},\ 6.55 \times 10^{902} u^{172} - 1.60 \times 10^{903} u^{171} + \cdots + 1.24 \times 10^{903} a + 7.02 \times 10^{904},\ u^{173} - 61 u^{171} + \cdots - 1173 u + 23 \rangle}$

(i) Arc colorings

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

$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} -0.529789u^{172} + 1.29664u^{171} + \cdots + 5321.00u - 56.7380 \\ 1.24764u^{172} - 0.980457u^{171} + \cdots - 2141.18u + 40.0861 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -1.65323u^{172} + 2.69220u^{171} + \cdots + 8796.48u - 123.586 \\ 0.522388u^{172} - 0.206474u^{171} + \cdots - 328.539u + 5.33571 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -1.77743u^{172} + 2.27709u^{171} + \cdots + 7462.18u - 96.8241 \\ 1.24764u^{172} - 0.980457u^{171} + \cdots - 2141.18u + 40.0861 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 2.16146u^{172} - 3.81691u^{171} + \cdots - 6443.06u + 140.089 \\ 2.64020u^{172} - 1.61551u^{171} + \cdots - 2165.65u + 40.4623 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -15.6581u^{172} + 13.4858u^{171} + \cdots + 28371.1u - 494.743 \\ -3.60652u^{172} + 2.74214u^{171} + \cdots + 3813.14u - 73.3888 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -7.26184u^{172} + 5.82108u^{171} + \cdots + 13912.4u - 229.742 \\ 1.38948u^{172} + 0.0103074u^{171} + \cdots + 99.1447u - 3.27255 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 8.70101u^{172} - 4.55347u^{171} + \cdots - 8538.66u + 129.068 \\ 1.79058u^{172} - 1.55903u^{171} + \cdots - 2586.99u + 49.6991 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -10.6185u^{172} + 5.87960u^{171} + \cdots + 13695.9u - 228.354 \\ -3.31591u^{172} + 3.25383u^{171} + \cdots + 6059.20u - 117.141 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -54.1766u^{172} + 34.3738u^{171} + \cdots + 59564.6u - 1133.39$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{173} + 10u^{172} + \cdots - 19296u + 2479$
c_2	$u^{173} - 11u^{172} + \cdots + 81u + 1$
c_3	$u^{173} + 5u^{171} + \cdots - 63604u + 4777$
c_5	$u^{173} + 5u^{172} + \cdots - 146967068577u - 20660319509$
c_6, c_{10}	$u^{173} - 61u^{171} + \cdots - 1173u - 23$
c_7	$u^{173} + u^{172} + \cdots + 118309218u - 11032501$
c_8, c_{12}	$u^{173} - 5u^{172} + \cdots + 16696u + 15296$
c_9	$u^{173} + u^{172} + \cdots - 14u + 4$
c_{11}	$u^{173} - 21u^{171} + \cdots - 2568295u + 328021$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{173} + 110y^{172} + \cdots - 487431164y - 6145441$
c_2	$y^{173} + 15y^{172} + \cdots + 6111y - 1$
c_3	$y^{173} + 10y^{172} + \cdots - 4426368712y - 22819729$
c_5	$y^{173} - 101y^{172} + \cdots + 2.92 \times 10^{22}y - 4.27 \times 10^{20}$
c_6, c_{10}	$y^{173} - 122y^{172} + \cdots + 882901y - 529$
c_7	$y^{173} + 43y^{172} + \cdots + 128804976616151910y - 121716078315001$
c_8, c_{12}	$y^{173} + 105y^{172} + \cdots - 8693357120y - 233967616$
c_9	$y^{173} - y^{172} + \cdots - 964y - 16$
c_{11}	$y^{173} - 42y^{172} + \cdots - 3575854983007y - 107597776441$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.969243 + 0.220547I$ $a = -1.052810 + 0.930178I$ $b = 1.25731 + 0.70948I$	$1.62467 + 4.25995I$	0
$u = 0.969243 - 0.220547I$ $a = -1.052810 - 0.930178I$ $b = 1.25731 - 0.70948I$	$1.62467 - 4.25995I$	0
$u = -0.967361 + 0.222779I$ $a = 0.185385 + 0.167139I$ $b = 1.44819 + 2.43454I$	$-1.56945 - 10.43610I$	0
$u = -0.967361 - 0.222779I$ $a = 0.185385 - 0.167139I$ $b = 1.44819 - 2.43454I$	$-1.56945 + 10.43610I$	0
$u = -0.122560 + 1.003480I$ $a = -0.724326 - 1.006380I$ $b = -0.313088 - 0.910696I$	$-5.96418 - 1.53799I$	0
$u = -0.122560 - 1.003480I$ $a = -0.724326 + 1.006380I$ $b = -0.313088 + 0.910696I$	$-5.96418 + 1.53799I$	0
$u = 0.951040 + 0.268610I$ $a = -0.478403 + 1.023580I$ $b = 0.28013 + 1.77652I$	$-0.68234 + 5.89789I$	0
$u = 0.951040 - 0.268610I$ $a = -0.478403 - 1.023580I$ $b = 0.28013 - 1.77652I$	$-0.68234 - 5.89789I$	0
$u = -1.009900 + 0.132134I$ $a = 0.358996 - 1.240550I$ $b = -0.60699 - 1.28490I$	$3.59664 - 2.11116I$	0
$u = -1.009900 - 0.132134I$ $a = 0.358996 + 1.240550I$ $b = -0.60699 + 1.28490I$	$3.59664 + 2.11116I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.941710+0.259548I$ $a=\ \ 2.23225-0.37220I$ $b=-0.136987+0.157446I$	$2.11551-5.14420I$	0
$u=-0.941710-0.259548I$ $a=\ \ 2.23225+0.37220I$ $b=-0.136987-0.157446I$	$2.11551+5.14420I$	0
$u=\ \ 1.020070+0.082123I$ $a=\ \ 1.031600+0.780816I$ $b=-1.48063+0.73015I$	$0.31938-3.49441I$	0
$u=\ \ 1.020070-0.082123I$ $a=\ \ 1.031600-0.780816I$ $b=-1.48063-0.73015I$	$0.31938+3.49441I$	0
$u=-1.001830+0.233287I$ $a=-1.61373-0.43084I$ $b=\ \ 1.019820-0.686855I$	$-0.02377-5.78752I$	0
$u=-1.001830-0.233287I$ $a=-1.61373+0.43084I$ $b=\ \ 1.019820+0.686855I$	$-0.02377+5.78752I$	0
$u=\ \ 0.136236+1.025890I$ $a=-0.719633+0.799077I$ $b=-0.650525+0.788882I$	$-3.46252-4.21752I$	0
$u=\ \ 0.136236-1.025890I$ $a=-0.719633-0.799077I$ $b=-0.650525-0.788882I$	$-3.46252+4.21752I$	0
$u=-0.167977+0.950127I$ $a=-0.290002+1.037440I$ $b=-0.951466+0.745473I$	$-3.68721-3.27523I$	0
$u=-0.167977-0.950127I$ $a=-0.290002-1.037440I$ $b=-0.951466-0.745473I$	$-3.68721+3.27523I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.910982+0.299524I$ $a=\ \ 0.34574+2.05281I$ $b=-0.302013+0.801161I$	$-0.46105-2.18860I$	0
$u=-0.910982-0.299524I$ $a=\ \ 0.34574-2.05281I$ $b=-0.302013-0.801161I$	$-0.46105+2.18860I$	0
$u=-0.005164+1.041260I$ $a=\ \ 0.639436+0.862373I$ $b=\ \ 0.360312+1.070660I$	$-6.97562+2.24381I$	0
$u=-0.005164-1.041260I$ $a=\ \ 0.639436-0.862373I$ $b=\ \ 0.360312-1.070660I$	$-6.97562-2.24381I$	0
$u=\ \ 1.023210+0.250565I$ $a=\ \ 2.07776+0.94856I$ $b=-0.203059-0.266347I$	$-1.13240+11.02240I$	0
$u=\ \ 1.023210-0.250565I$ $a=\ \ 2.07776-0.94856I$ $b=-0.203059+0.266347I$	$-1.13240-11.02240I$	0
$u=-0.179225+1.040520I$ $a=-0.898061-0.760638I$ $b=-0.768989-0.984083I$	$-7.85520+8.35950I$	0
$u=-0.179225-1.040520I$ $a=-0.898061+0.760638I$ $b=-0.768989+0.984083I$	$-7.85520-8.35950I$	0
$u=\ \ 0.901239+0.244418I$ $a=-0.800546+0.899555I$ $b=\ \ 1.33330+0.76864I$	$1.61175+4.35594I$	0
$u=\ \ 0.901239-0.244418I$ $a=-0.800546-0.899555I$ $b=\ \ 1.33330-0.76864I$	$1.61175-4.35594I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.886423+0.608296I$ $a=-0.417111-0.851974I$ $b=\ \ 1.51474-0.98438I$	$-3.01484-6.95211I$	0
$u=-0.886423-0.608296I$ $a=-0.417111+0.851974I$ $b=\ \ 1.51474+0.98438I$	$-3.01484+6.95211I$	0
$u=-1.073010+0.129958I$ $a=-0.776007+0.912568I$ $b=\ \ 0.833781+0.132686I$	$2.52711-0.99224I$	0
$u=-1.073010-0.129958I$ $a=-0.776007-0.912568I$ $b=\ \ 0.833781-0.132686I$	$2.52711+0.99224I$	0
$u=-0.903819+0.600056I$ $a=-0.194228+0.097503I$ $b=-0.697492-1.036150I$	$-1.60144-1.97820I$	0
$u=-0.903819-0.600056I$ $a=-0.194228-0.097503I$ $b=-0.697492+1.036150I$	$-1.60144+1.97820I$	0
$u=\ \ 0.722477+0.814466I$ $a=\ \ 0.740815+0.042360I$ $b=\ \ 0.734908-0.521689I$	$0.530642-0.857914I$	0
$u=\ \ 0.722477-0.814466I$ $a=\ \ 0.740815-0.042360I$ $b=\ \ 0.734908+0.521689I$	$0.530642+0.857914I$	0
$u=\ \ 0.878159+0.242664I$ $a=-0.098780+0.283426I$ $b=-0.554255+1.293440I$	$-0.73676+2.10314I$	0
$u=\ \ 0.878159-0.242664I$ $a=-0.098780-0.283426I$ $b=-0.554255-1.293440I$	$-0.73676-2.10314I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.910249+0.037015I$ $a=-0.47849-1.45705I$ $b=\ \ 0.753338-0.765683I$	$1.40037-0.58570I$	0
$u=-0.910249-0.037015I$ $a=-0.47849+1.45705I$ $b=\ \ 0.753338+0.765683I$	$1.40037+0.58570I$	0
$u=\ \ 1.079010+0.206227I$ $a=-0.123987-0.360311I$ $b=\ \ 1.47315-0.91538I$	$4.03967+5.41750I$	0
$u=\ \ 1.079010-0.206227I$ $a=-0.123987+0.360311I$ $b=\ \ 1.47315+0.91538I$	$4.03967-5.41750I$	0
$u=\ \ 1.008880+0.455136I$ $a=\ \ 1.146700+0.496191I$ $b=\ \ 0.108682-0.153213I$	$-3.02207+0.95034I$	0
$u=\ \ 1.008880-0.455136I$ $a=\ \ 1.146700-0.496191I$ $b=\ \ 0.108682+0.153213I$	$-3.02207-0.95034I$	0
$u=-0.858386+0.230562I$ $a=\ \ 1.091710+0.363015I$ $b=-1.81940+0.94635I$	$-5.46005+1.54949I$	0
$u=-0.858386-0.230562I$ $a=\ \ 1.091710-0.363015I$ $b=-1.81940-0.94635I$	$-5.46005-1.54949I$	0
$u=\ \ 0.685350+0.557198I$ $a=\ \ 0.192676-0.505351I$ $b=-0.838605+0.312875I$	$-1.88020+2.17309I$	0
$u=\ \ 0.685350-0.557198I$ $a=\ \ 0.192676+0.505351I$ $b=-0.838605-0.312875I$	$-1.88020-2.17309I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.419039 + 0.770002I$ $a = -1.171560 + 0.741643I$ $b = -0.508847 + 0.460575I$	$-4.21165 - 3.97894I$	0
$u = 0.419039 - 0.770002I$ $a = -1.171560 - 0.741643I$ $b = -0.508847 - 0.460575I$	$-4.21165 + 3.97894I$	0
$u = 0.757319 + 0.438938I$ $a = -0.16686 - 1.98211I$ $b = -0.502869 - 0.956805I$	$-3.29399 + 8.42223I$	0
$u = 0.757319 - 0.438938I$ $a = -0.16686 + 1.98211I$ $b = -0.502869 + 0.956805I$	$-3.29399 - 8.42223I$	0
$u = 0.182868 + 1.127140I$ $a = -0.099297 - 0.868525I$ $b = -0.698346 - 1.089340I$	$-4.82462 + 3.35490I$	0
$u = 0.182868 - 1.127140I$ $a = -0.099297 + 0.868525I$ $b = -0.698346 + 1.089340I$	$-4.82462 - 3.35490I$	0
$u = 0.810558 + 0.253566I$ $a = -2.39009 - 0.15928I$ $b = 0.007354 + 0.444463I$	$-5.77653 + 4.38873I$	0
$u = 0.810558 - 0.253566I$ $a = -2.39009 + 0.15928I$ $b = 0.007354 - 0.444463I$	$-5.77653 - 4.38873I$	0
$u = -0.032255 + 1.171010I$ $a = 0.677224 + 0.810296I$ $b = 0.777621 + 1.012520I$	$-4.8125 + 14.7446I$	0
$u = -0.032255 - 1.171010I$ $a = 0.677224 - 0.810296I$ $b = 0.777621 - 1.012520I$	$-4.8125 - 14.7446I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.004153 + 1.173180I$ $a = 0.621616 - 0.800224I$ $b = 0.628100 - 0.923295I$	$-0.86051 - 8.28933I$	0
$u = 0.004153 - 1.173180I$ $a = 0.621616 + 0.800224I$ $b = 0.628100 + 0.923295I$	$-0.86051 + 8.28933I$	0
$u = -1.160770 + 0.172269I$ $a = 0.251287 + 0.297848I$ $b = -0.620853 + 0.121311I$	$1.95157 - 0.09545I$	0
$u = -1.160770 - 0.172269I$ $a = 0.251287 - 0.297848I$ $b = -0.620853 - 0.121311I$	$1.95157 + 0.09545I$	0
$u = -1.102500 + 0.403399I$ $a = -0.64337 - 1.36102I$ $b = 1.25118 - 1.39287I$	$2.20201 - 6.60941I$	0
$u = -1.102500 - 0.403399I$ $a = -0.64337 + 1.36102I$ $b = 1.25118 + 1.39287I$	$2.20201 + 6.60941I$	0
$u = 0.783807 + 0.204550I$ $a = 0.43137 - 2.27060I$ $b = -0.062834 - 1.100940I$	$-5.93852 - 1.91924I$	0
$u = 0.783807 - 0.204550I$ $a = 0.43137 + 2.27060I$ $b = -0.062834 + 1.100940I$	$-5.93852 + 1.91924I$	0
$u = -0.786568 + 0.168902I$ $a = -0.404782 - 0.074901I$ $b = -0.69002 - 2.25440I$	$-5.77655 - 3.77297I$	0
$u = -0.786568 - 0.168902I$ $a = -0.404782 + 0.074901I$ $b = -0.69002 + 2.25440I$	$-5.77655 + 3.77297I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.096945+1.208110I$ $a=\ \ 0.285525+0.606083I$ $b=\ \ 0.496297+1.208820I$	$-5.85740+0.93686I$	0
$u=-0.096945-1.208110I$ $a=\ \ 0.285525-0.606083I$ $b=\ \ 0.496297-1.208820I$	$-5.85740-0.93686I$	0
$u=\ \ 0.766704+0.109869I$ $a=-0.073871+0.880786I$ $b=-1.038940-0.028975I$	$-0.32041+4.36664I$	0
$u=\ \ 0.766704-0.109869I$ $a=-0.073871-0.880786I$ $b=-1.038940+0.028975I$	$-0.32041-4.36664I$	0
$u=\ \ 1.200650+0.271618I$ $a=-0.265384+0.267536I$ $b=\ \ 1.58241+0.43184I$	$3.49282+6.04510I$	0
$u=\ \ 1.200650-0.271618I$ $a=-0.265384-0.267536I$ $b=\ \ 1.58241-0.43184I$	$3.49282-6.04510I$	0
$u=-0.368818+0.672839I$ $a=\ \ 0.818687-0.095745I$ $b=\ \ 0.500821-0.511438I$	$-0.78139-3.14198I$	0
$u=-0.368818-0.672839I$ $a=\ \ 0.818687+0.095745I$ $b=\ \ 0.500821+0.511438I$	$-0.78139+3.14198I$	0
$u=-1.219470+0.205127I$ $a=-1.03405-1.35713I$ $b=\ \ 0.740843-0.645709I$	$5.58472-5.07772I$	0
$u=-1.219470-0.205127I$ $a=-1.03405+1.35713I$ $b=\ \ 0.740843+0.645709I$	$5.58472+5.07772I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.156010 + 0.445248I$ $a = -0.417710 + 1.287460I$ $b = 1.37006 + 0.97818I$	$2.85416 + 5.29441I$	0
$u = 1.156010 - 0.445248I$ $a = -0.417710 - 1.287460I$ $b = 1.37006 - 0.97818I$	$2.85416 - 5.29441I$	0
$u = 0.759259$ $a = 1.21796$ $b = -1.58398$	-1.67990	0
$u = -0.749218$ $a = -2.97064$ $b = -0.0127734$	-1.63607	0
$u = -1.121570 + 0.562084I$ $a = 0.163020 - 0.973628I$ $b = 1.110900 - 0.390923I$	$2.26211 - 2.51652I$	0
$u = -1.121570 - 0.562084I$ $a = 0.163020 + 0.973628I$ $b = 1.110900 + 0.390923I$	$2.26211 + 2.51652I$	0
$u = -1.252570 + 0.183974I$ $a = 0.296046 + 0.701703I$ $b = -1.43761 + 1.92411I$	$1.81439 - 9.64166I$	0
$u = -1.252570 - 0.183974I$ $a = 0.296046 - 0.701703I$ $b = -1.43761 - 1.92411I$	$1.81439 + 9.64166I$	0
$u = 0.410556 + 1.198760I$ $a = -0.540811 - 0.091650I$ $b = -0.737529 + 0.107259I$	$0.87054 - 6.12136I$	0
$u = 0.410556 - 1.198760I$ $a = -0.540811 + 0.091650I$ $b = -0.737529 - 0.107259I$	$0.87054 + 6.12136I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.157080 + 0.533898I$ $a = -0.212976 + 0.382913I$ $b = 0.085770 + 1.017750I$	$-1.90982 + 2.48807I$	0
$u = 1.157080 - 0.533898I$ $a = -0.212976 - 0.382913I$ $b = 0.085770 - 1.017750I$	$-1.90982 - 2.48807I$	0
$u = -0.725390 + 1.058350I$ $a = -0.220840 + 0.450227I$ $b = -0.526215 + 0.205867I$	$3.14897 + 0.40252I$	0
$u = -0.725390 - 1.058350I$ $a = -0.220840 - 0.450227I$ $b = -0.526215 - 0.205867I$	$3.14897 - 0.40252I$	0
$u = 1.191820 + 0.489960I$ $a = -0.316041 + 1.049930I$ $b = 1.22005 + 0.87336I$	$2.71899 + 5.49712I$	0
$u = 1.191820 - 0.489960I$ $a = -0.316041 - 1.049930I$ $b = 1.22005 - 0.87336I$	$2.71899 - 5.49712I$	0
$u = 1.288050 + 0.181306I$ $a = 0.157721 - 1.163590I$ $b = -0.0435054 - 0.1013280I$	$4.89026 + 3.20957I$	0
$u = 1.288050 - 0.181306I$ $a = 0.157721 + 1.163590I$ $b = -0.0435054 + 0.1013280I$	$4.89026 - 3.20957I$	0
$u = -0.682522 + 0.131631I$ $a = 0.94611 - 1.22570I$ $b = -0.550588 + 0.135442I$	$2.74796 + 0.70076I$	0
$u = -0.682522 - 0.131631I$ $a = 0.94611 + 1.22570I$ $b = -0.550588 - 0.135442I$	$2.74796 - 0.70076I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.227500+0.539315I$ $a=-0.415190-0.786644I$ $b=\ \ 1.33725-1.23938I$	$-2.61566-7.02854I$	0
$u=-1.227500-0.539315I$ $a=-0.415190+0.786644I$ $b=\ \ 1.33725+1.23938I$	$-2.61566+7.02854I$	0
$u=-1.329220+0.228470I$ $a=\ \ 0.370944+1.084410I$ $b=-0.487068+0.157170I$	$4.16915-4.28201I$	0
$u=-1.329220-0.228470I$ $a=\ \ 0.370944-1.084410I$ $b=-0.487068-0.157170I$	$4.16915+4.28201I$	0
$u=\ \ 1.325760+0.290604I$ $a=\ \ 0.267691-0.881832I$ $b=-0.940512-0.811806I$	$9.13595+3.18355I$	0
$u=\ \ 1.325760-0.290604I$ $a=\ \ 0.267691+0.881832I$ $b=-0.940512+0.811806I$	$9.13595-3.18355I$	0
$u=-1.173410+0.685976I$ $a=\ \ 0.199940-0.617062I$ $b=\ \ 0.732611-0.163553I$	$1.91365-2.65055I$	0
$u=-1.173410-0.685976I$ $a=\ \ 0.199940+0.617062I$ $b=\ \ 0.732611+0.163553I$	$1.91365+2.65055I$	0
$u=\ \ 0.536702+0.326827I$ $a=\ \ 1.86003-0.15335I$ $b=-0.308604-1.002870I$	$-1.76826-3.10202I$	0
$u=\ \ 0.536702-0.326827I$ $a=\ \ 1.86003+0.15335I$ $b=-0.308604+1.002870I$	$-1.76826+3.10202I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.264190+0.536205I$ $a=\ \ 0.352157+1.086730I$ $b=-0.77320+1.21163I$	$-2.42445-3.92596I$	0
$u=-1.264190-0.536205I$ $a=\ \ 0.352157-1.086730I$ $b=-0.77320-1.21163I$	$-2.42445+3.92596I$	0
$u=-1.343680+0.290582I$ $a=\ \ 0.253811+0.864510I$ $b=-1.070670+0.468631I$	$6.83971+1.92735I$	0
$u=-1.343680-0.290582I$ $a=\ \ 0.253811-0.864510I$ $b=-1.070670-0.468631I$	$6.83971-1.92735I$	0
$u=\ \ 1.351440+0.255840I$ $a=-0.987749+0.952513I$ $b=\ \ 1.112130+0.524380I$	$3.57229+9.36641I$	0
$u=\ \ 1.351440-0.255840I$ $a=-0.987749-0.952513I$ $b=\ \ 1.112130-0.524380I$	$3.57229-9.36641I$	0
$u=-0.430922+0.451652I$ $a=\ \ 0.86876-2.11192I$ $b=-0.026895-0.940836I$	$0.89030+2.11401I$	0
$u=-0.430922-0.451652I$ $a=\ \ 0.86876+2.11192I$ $b=-0.026895+0.940836I$	$0.89030-2.11401I$	0
$u=-0.548139+0.286304I$ $a=-1.49477-0.47034I$ $b=\ \ 1.69700-0.53561I$	$-2.62395+7.97434I$	0
$u=-0.548139-0.286304I$ $a=-1.49477+0.47034I$ $b=\ \ 1.69700+0.53561I$	$-2.62395-7.97434I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.387790+0.003112I$ $a=-0.004582-0.177119I$ $b=\ \ 0.757237-1.057860I$	$5.32106+0.36979I$	0
$u=-1.387790-0.003112I$ $a=-0.004582+0.177119I$ $b=\ \ 0.757237+1.057860I$	$5.32106-0.36979I$	0
$u=-1.266330+0.568624I$ $a=\ \ 0.381555+1.149880I$ $b=-1.25628+1.18285I$	$-4.4576-14.0685I$	0
$u=-1.266330-0.568624I$ $a=\ \ 0.381555-1.149880I$ $b=-1.25628-1.18285I$	$-4.4576+14.0685I$	0
$u=\ \ 1.278760+0.544025I$ $a=\ \ 0.392596-1.109330I$ $b=-1.08113-1.03042I$	$0.11235+9.78625I$	0
$u=\ \ 1.278760-0.544025I$ $a=\ \ 0.392596+1.109330I$ $b=-1.08113+1.03042I$	$0.11235-9.78625I$	0
$u=\ \ 0.239228+0.554190I$ $a=\ \ 1.096990-0.683420I$ $b=\ \ 0.705204-0.805438I$	$0.005915-1.270890I$	0
$u=\ \ 0.239228-0.554190I$ $a=\ \ 1.096990+0.683420I$ $b=\ \ 0.705204+0.805438I$	$0.005915+1.270890I$	0
$u=-0.563968+0.193891I$ $a=\ \ 1.24682+1.03036I$ $b=\ \ 0.574396+1.114600I$	$-1.31218+3.52110I$	0
$u=-0.563968-0.193891I$ $a=\ \ 1.24682-1.03036I$ $b=\ \ 0.574396-1.114600I$	$-1.31218-3.52110I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.30026 + 0.58324I$ $a = 0.232643 - 0.326397I$ $b = -0.628486 - 1.014780I$	$-1.71043 + 5.41779I$	0
$u = 1.30026 - 0.58324I$ $a = 0.232643 + 0.326397I$ $b = -0.628486 + 1.014780I$	$-1.71043 - 5.41779I$	0
$u = -1.29153 + 0.61828I$ $a = -0.005743 - 0.721952I$ $b = 0.604506 - 0.252130I$	$1.70017 - 2.39294I$	0
$u = -1.29153 - 0.61828I$ $a = -0.005743 + 0.721952I$ $b = 0.604506 + 0.252130I$	$1.70017 + 2.39294I$	0
$u = 1.43698 + 0.06025I$ $a = 0.003089 + 0.750588I$ $b = -0.02991 + 2.08276I$	$6.94187 - 0.65250I$	0
$u = 1.43698 - 0.06025I$ $a = 0.003089 - 0.750588I$ $b = -0.02991 - 2.08276I$	$6.94187 + 0.65250I$	0
$u = -1.34743 + 0.50692I$ $a = -0.323862 - 0.885734I$ $b = 1.00909 - 1.42259I$	$-2.77555 - 7.73319I$	0
$u = -1.34743 - 0.50692I$ $a = -0.323862 + 0.885734I$ $b = 1.00909 + 1.42259I$	$-2.77555 + 7.73319I$	0
$u = -0.300329 + 0.459880I$ $a = 2.16698 + 0.68037I$ $b = 0.567826 + 1.089640I$	$-0.14467 + 3.00445I$	0
$u = -0.300329 - 0.459880I$ $a = 2.16698 - 0.68037I$ $b = 0.567826 - 1.089640I$	$-0.14467 - 3.00445I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.31864 + 0.63373I$ $a = 0.037226 - 0.915603I$ $b = -1.209670 - 0.584234I$	$4.14669 + 12.67360I$	0
$u = 1.31864 - 0.63373I$ $a = 0.037226 + 0.915603I$ $b = -1.209670 + 0.584234I$	$4.14669 - 12.67360I$	0
$u = 0.021491 + 0.529465I$ $a = 1.62829 + 0.65341I$ $b = 0.354677 + 1.148380I$	$-5.46244 + 2.80420I$	0
$u = 0.021491 - 0.529465I$ $a = 1.62829 - 0.65341I$ $b = 0.354677 - 1.148380I$	$-5.46244 - 2.80420I$	0
$u = -1.35979 + 0.57521I$ $a = -0.399752 - 1.059340I$ $b = 1.26096 - 1.16591I$	$-0.6656 - 20.8442I$	0
$u = -1.35979 - 0.57521I$ $a = -0.399752 + 1.059340I$ $b = 1.26096 + 1.16591I$	$-0.6656 + 20.8442I$	0
$u = 1.36500 + 0.56847I$ $a = -0.349469 + 1.028930I$ $b = 1.12509 + 1.15449I$	$3.3780 + 14.3617I$	0
$u = 1.36500 - 0.56847I$ $a = -0.349469 - 1.028930I$ $b = 1.12509 - 1.15449I$	$3.3780 - 14.3617I$	0
$u = 1.38508 + 0.51862I$ $a = 0.552465 - 0.932881I$ $b = -1.22291 - 0.81708I$	$1.03400 + 8.66852I$	0
$u = 1.38508 - 0.51862I$ $a = 0.552465 + 0.932881I$ $b = -1.22291 + 0.81708I$	$1.03400 - 8.66852I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.148720 + 0.482945I$ $a = 1.31359 - 0.57487I$ $b = 0.676467 - 0.691564I$	$-0.004881 - 1.286030I$	0
$u = 0.148720 - 0.482945I$ $a = 1.31359 + 0.57487I$ $b = 0.676467 + 0.691564I$	$-0.004881 + 1.286030I$	0
$u = -1.35453 + 0.65792I$ $a = 0.005338 + 0.700792I$ $b = -0.971850 + 0.557496I$	$6.07493 - 7.57229I$	0
$u = -1.35453 - 0.65792I$ $a = 0.005338 - 0.700792I$ $b = -0.971850 - 0.557496I$	$6.07493 + 7.57229I$	0
$u = 1.36144 + 0.64702I$ $a = 0.311903 - 0.254748I$ $b = -0.512168 - 0.365117I$	$-2.62729 + 3.59920I$	0
$u = 1.36144 - 0.64702I$ $a = 0.311903 + 0.254748I$ $b = -0.512168 + 0.365117I$	$-2.62729 - 3.59920I$	0
$u = 0.112682 + 0.473330I$ $a = 1.318460 - 0.382065I$ $b = 0.602784 - 0.525291I$	$-0.009720 - 1.263390I$	$0. + 4.02131I$
$u = 0.112682 - 0.473330I$ $a = 1.318460 + 0.382065I$ $b = 0.602784 + 0.525291I$	$-0.009720 + 1.263390I$	$0. - 4.02131I$
$u = 1.53517 + 0.02120I$ $a = -0.051958 - 0.337218I$ $b = -0.334881 + 0.080066I$	$-1.83289 - 3.57922I$	0
$u = 1.53517 - 0.02120I$ $a = -0.051958 + 0.337218I$ $b = -0.334881 - 0.080066I$	$-1.83289 + 3.57922I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.42745+0.56571I$ $a=\ \ 0.575721+0.757452I$ $b=-1.23625+0.97042I$	$0.12555-9.41106I$	0
$u=-1.42745-0.56571I$ $a=\ \ 0.575721-0.757452I$ $b=-1.23625-0.97042I$	$0.12555+9.41106I$	0
$u=\ \ 0.378134+0.210562I$ $a=\ \ 0.95746+3.19583I$ $b=-0.273839+1.082160I$	$-2.85014-8.62215I$	$-4.59014+5.23088I$
$u=\ \ 0.378134-0.210562I$ $a=\ \ 0.95746-3.19583I$ $b=-0.273839-1.082160I$	$-2.85014+8.62215I$	$-4.59014-5.23088I$
$u=\ \ 1.50193+0.50382I$ $a=-0.444673+0.307729I$ $b=\ \ 0.352788+0.354843I$	$-0.82752+6.87156I$	0
$u=\ \ 1.50193-0.50382I$ $a=-0.444673-0.307729I$ $b=\ \ 0.352788-0.354843I$	$-0.82752-6.87156I$	0
$u=\ \ 0.168166+0.043064I$ $a=-5.98163-1.03181I$ $b=\ \ 0.936793-0.081608I$	$1.69091-3.73872I$	$2.17781+3.89804I$
$u=\ \ 0.168166-0.043064I$ $a=-5.98163+1.03181I$ $b=\ \ 0.936793+0.081608I$	$1.69091+3.73872I$	$2.17781-3.89804I$
$u=\ \ 1.82111+0.55590I$ $a=\ \ 0.138572+0.145635I$ $b=\ \ 0.305914-0.242109I$	$0.29197-8.00629I$	0
$u=\ \ 1.82111-0.55590I$ $a=\ \ 0.138572-0.145635I$ $b=\ \ 0.305914+0.242109I$	$0.29197+8.00629I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.0252858$ $a = 42.3506$ $b = -0.691363$	-2.02113	-4.89160
$u = -2.00370 + 0.43858I$ $a = 0.059461 - 0.151701I$ $b = 0.148255 - 0.017669I$	$4.22160 + 1.14204I$	0
$u = -2.00370 - 0.43858I$ $a = 0.059461 + 0.151701I$ $b = 0.148255 + 0.017669I$	$4.22160 - 1.14204I$	0

II. $I_2^u =$
$\langle \mathbf{1.36\times 10^{44} u^{40} - 3.58\times 10^{43} u^{39} + \cdots + 3.88\times 10^{43} b - 1.90\times 10^{45},\ 1.80\times 10^{43} u^{40} + 1.31\times 10^{43} u^{39} + \cdots + 1.47\times 10^{43} a - 5.14\times 10^{44},\ u^{41} - u^{40} + \cdots + 29u + 11} \rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -1.21947u^{40} - 0.887964u^{39} + \cdots + 116.260u + 34.9202 \\ -3.50622u^{40} + 0.922029u^{39} + \cdots + 172.647u + 48.7986 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1.07592u^{40} - 1.94844u^{39} + \cdots + 27.1620u + 12.7597 \\ -3.08528u^{40} + 0.960192u^{39} + \cdots + 144.610u + 40.2222 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 2.28675u^{40} - 1.80999u^{39} + \cdots - 56.3864u - 13.8784 \\ -3.50622u^{40} + 0.922029u^{39} + \cdots + 172.647u + 48.7986 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 4.24856u^{40} - 3.80174u^{39} + \cdots - 87.0183u - 0.0200182 \\ 0.379784u^{40} - 0.525792u^{39} + \cdots + 3.33026u + 6.69813 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -4.64507u^{40} + 1.53639u^{39} + \cdots + 219.665u + 51.1541 \\ -1.79701u^{40} + 0.489537u^{39} + \cdots + 86.1902u + 17.2364 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -3.88045u^{40} + 1.02053u^{39} + \cdots + 192.075u + 37.7071 \\ -4.21447u^{40} + 2.18541u^{39} + \cdots + 152.476u + 23.6968 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 1.42334u^{40} - 2.38353u^{39} + \cdots + 21.9545u + 22.0103 \\ 4.35282u^{40} - 1.17620u^{39} + \cdots - 212.688u - 49.0652 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 4.38986u^{40} - 0.642310u^{39} + \cdots - 246.880u - 68.6471 \\ -1.02171u^{40} + 0.865503u^{39} + \cdots + 19.1329u - 1.43046 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 3.85109u^{40} + 3.16921u^{39} + \cdots - 436.905u - 176.165$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{41} - 11u^{40} + \cdots + 72u - 11$
c_2	$u^{41} + 4u^{40} + \cdots - 3u - 1$
c_3	$u^{41} + u^{40} + \cdots + 2u + 1$
c_4	$u^{41} + 11u^{40} + \cdots + 72u + 11$
c_5	$u^{41} + 2u^{40} + \cdots + 7u - 1$
c_6	$u^{41} - u^{40} + \cdots + 29u + 11$
c_7	$u^{41} + 5u^{39} + \cdots + 88u - 31$
c_8	$u^{41} + 10u^{39} + \cdots - 6u - 1$
c_9	$u^{41} - 3u^{39} + \cdots + 2u - 1$
c_{10}	$u^{41} + u^{40} + \cdots + 29u - 11$
c_{11}	$u^{41} + u^{40} + \cdots - 95u - 25$
c_{12}	$u^{41} + 10u^{39} + \cdots - 6u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{41} + 37y^{40} + \cdots - 1702y - 121$
c_2	$y^{41} + 18y^{40} + \cdots - 35y - 1$
c_3	$y^{41} + 33y^{40} + \cdots - 54y - 1$
c_5	$y^{41} - 34y^{40} + \cdots + 25y - 1$
c_6, c_{10}	$y^{41} - 39y^{40} + \cdots + 1699y - 121$
c_7	$y^{41} + 10y^{40} + \cdots + 5512y - 961$
c_8, c_{12}	$y^{41} + 20y^{40} + \cdots - 32y - 1$
c_9	$y^{41} - 6y^{40} + \cdots - 4y - 1$
c_{11}	$y^{41} - 15y^{40} + \cdots + 9675y - 625$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.948998+0.188927I$ $a=-1.47164-0.16078I$ $b=\ \ 1.062120+0.067203I$	$2.85648-4.65083I$	$5.82829+4.94875I$
$u=-0.948998-0.188927I$ $a=-1.47164+0.16078I$ $b=\ \ 1.062120-0.067203I$	$2.85648+4.65083I$	$5.82829-4.94875I$
$u=\ \ 0.013214+0.963497I$ $a=-0.442379+0.958457I$ $b=-0.800258+0.604053I$	$-3.09124-4.26556I$	$-0.67427+7.81117I$
$u=\ \ 0.013214-0.963497I$ $a=-0.442379-0.958457I$ $b=-0.800258-0.604053I$	$-3.09124+4.26556I$	$-0.67427-7.81117I$
$u=\ \ 0.930972+0.142272I$ $a=-0.903376-0.790557I$ $b=\ \ 0.81326-1.45164I$	$-1.37666+9.65703I$	$0.29714-4.57227I$
$u=\ \ 0.930972-0.142272I$ $a=-0.903376+0.790557I$ $b=\ \ 0.81326+1.45164I$	$-1.37666-9.65703I$	$0.29714+4.57227I$
$u=-0.864280+0.322984I$ $a=\ \ 0.179497-1.209950I$ $b=\ \ 0.218442-0.677718I$	$0.61389-1.78499I$	$0.88018+3.78376I$
$u=-0.864280-0.322984I$ $a=\ \ 0.179497+1.209950I$ $b=\ \ 0.218442+0.677718I$	$0.61389+1.78499I$	$0.88018-3.78376I$
$u=\ \ 0.923761+0.587477I$ $a=-0.531164+0.614959I$ $b=\ \ 0.509879+1.012170I$	$-2.91855+4.87379I$	$-6.02867-6.11416I$
$u=\ \ 0.923761-0.587477I$ $a=-0.531164-0.614959I$ $b=\ \ 0.509879-1.012170I$	$-2.91855-4.87379I$	$-6.02867+6.11416I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.852932$ $a=\ \ 1.78782$ $b=-0.938634$	-1.01345	4.05670
$u=-1.133090+0.337664I$ $a=-0.818291-0.988272I$ $b=\ \ 1.16898-1.22170I$	$1.27274-6.45012I$	$0.+8.83301I$
$u=-1.133090-0.337664I$ $a=-0.818291+0.988272I$ $b=\ \ 1.16898+1.22170I$	$1.27274+6.45012I$	$0.-8.83301I$
$u=\ \ 0.033717+1.190540I$ $a=-0.298867-0.686512I$ $b=-0.435570-1.147210I$	$-5.70107+1.39440I$	$-3.79059-7.87639I$
$u=\ \ 0.033717-1.190540I$ $a=-0.298867+0.686512I$ $b=-0.435570+1.147210I$	$-5.70107-1.39440I$	$-3.79059+7.87639I$
$u=\ \ 0.807910+0.015550I$ $a=\ \ 1.14004-0.97933I$ $b=-0.76131-1.38466I$	$-5.38637-2.85526I$	$-3.87742+3.20878I$
$u=\ \ 0.807910-0.015550I$ $a=\ \ 1.14004+0.97933I$ $b=-0.76131+1.38466I$	$-5.38637+2.85526I$	$-3.87742-3.20878I$
$u=\ \ 1.133230+0.390249I$ $a=-0.62880+1.42056I$ $b=\ \ 1.21011+1.09053I$	$2.60889+5.87340I$	$3.54060-8.80569I$
$u=\ \ 1.133230-0.390249I$ $a=-0.62880-1.42056I$ $b=\ \ 1.21011-1.09053I$	$2.60889-5.87340I$	$3.54060+8.80569I$
$u=-1.283470+0.192388I$ $a=\ \ 0.309119+1.123920I$ $b=-0.201143+0.266008I$	$6.00053-3.43988I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.283470-0.192388I$ $a=\ 0.309119-1.123920I$ $b=-0.201143-0.266008I$	$6.00053+3.43988I$	0
$u=-1.158020+0.598769I$ $a=\ 0.174356-0.843047I$ $b=\ 0.712780-0.277649I$	$1.19639-2.62029I$	0
$u=-1.158020-0.598769I$ $a=\ 0.174356+0.843047I$ $b=\ 0.712780+0.277649I$	$1.19639+2.62029I$	0
$u=-1.298140+0.547375I$ $a=\ 0.357183+0.757775I$ $b=-1.26081+1.33875I$	$-1.72496-7.43598I$	0
$u=-1.298140-0.547375I$ $a=\ 0.357183-0.757775I$ $b=-1.26081-1.33875I$	$-1.72496+7.43598I$	0
$u=\ 1.41711+0.03136I$ $a=-0.046463-0.735250I$ $b=\ 0.09102-2.09142I$	$7.05282-0.38190I$	0
$u=\ 1.41711-0.03136I$ $a=-0.046463+0.735250I$ $b=\ 0.09102+2.09142I$	$7.05282+0.38190I$	0
$u=\ 0.417001+0.405241I$ $a=\ 2.22315-0.38033I$ $b=\ 0.560782-0.830549I$	$0.30606-2.52832I$	$3.39609+0.48164I$
$u=\ 0.417001-0.405241I$ $a=\ 2.22315+0.38033I$ $b=\ 0.560782+0.830549I$	$0.30606+2.52832I$	$3.39609-0.48164I$
$u=-0.531824+0.084973I$ $a=\ 2.06655+0.23764I$ $b=\ 0.299816+1.129640I$	$-1.16586+4.03183I$	$-0.21603-12.06011I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.531824-0.084973I$ $a=\ \ 2.06655-0.23764I$ $b=\ \ 0.299816-1.129640I$	$-1.16586-4.03183I$	$-0.21603+12.06011I$
$u=\ \ 1.39911+0.52488I$ $a=\ \ 0.575053-0.881399I$ $b=-1.173440-0.755391I$	$1.42414+9.69341I$	0
$u=\ \ 1.39911-0.52488I$ $a=\ \ 0.575053+0.881399I$ $b=-1.173440+0.755391I$	$1.42414-9.69341I$	0
$u=\ \ 1.57679+0.21920I$ $a=\ \ 0.200507-0.065792I$ $b=-0.111675+0.487713I$	$0.03875-7.80297I$	0
$u=\ \ 1.57679-0.21920I$ $a=\ \ 0.200507+0.065792I$ $b=-0.111675-0.487713I$	$0.03875+7.80297I$	0
$u=\ \ 1.51946+0.52586I$ $a=-0.190896+0.217650I$ $b=\ \ 0.432046+0.487488I$	$-2.38470+3.92779I$	0
$u=\ \ 1.51946-0.52586I$ $a=-0.190896-0.217650I$ $b=\ \ 0.432046-0.487488I$	$-2.38470-3.92779I$	0
$u=-0.164827+0.349316I$ $a=-2.12620+0.91108I$ $b=\ \ 0.071798+0.779748I$	$1.70472+1.24557I$	$1.337522+0.033237I$
$u=-0.164827-0.349316I$ $a=-2.12620-0.91108I$ $b=\ \ 0.071798-0.779748I$	$1.70472-1.24557I$	$1.337522-0.033237I$
$u=-1.86318+0.36831I$ $a=\ \ 0.0659731-0.1058880I$ $b=\ \ 0.062498-0.323247I$	$4.11551+1.12253I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.86318-0.36831I$		
$a=\quad 0.0659731+0.1058880I$	$4.11551-1.12253I$	0
$b=\quad 0.062498+0.323247I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{41}-11u^{40}+\cdots+72u-11)(u^{173}+10u^{172}+\cdots-19296u+2479)$
c_2	$(u^{41}+4u^{40}+\cdots-3u-1)(u^{173}-11u^{172}+\cdots+81u+1)$
c_3	$(u^{41}+u^{40}+\cdots+2u+1)(u^{173}+5u^{171}+\cdots-63604u+4777)$
c_4	$(u^{41}+11u^{40}+\cdots+72u+11)(u^{173}+10u^{172}+\cdots-19296u+2479)$
c_5	$(u^{41}+2u^{40}+\cdots+7u-1)$ $\cdot(u^{173}+5u^{172}+\cdots-146967068577u-20660319509)$
c_6	$(u^{41}-u^{40}+\cdots+29u+11)(u^{173}-61u^{171}+\cdots-1173u-23)$
c_7	$(u^{41}+5u^{39}+\cdots+88u-31)$ $\cdot(u^{173}+u^{172}+\cdots+118309218u-11032501)$
c_8	$(u^{41}+10u^{39}+\cdots-6u-1)(u^{173}-5u^{172}+\cdots+16696u+15296)$
c_9	$(u^{41}-3u^{39}+\cdots+2u-1)(u^{173}+u^{172}+\cdots-14u+4)$
c_{10}	$(u^{41}+u^{40}+\cdots+29u-11)(u^{173}-61u^{171}+\cdots-1173u-23)$
c_{11}	$(u^{41}+u^{40}+\cdots-95u-25)$ $\cdot(u^{173}-21u^{171}+\cdots-2568295u+328021)$
c_{12}	$(u^{41}+10u^{39}+\cdots-6u+1)(u^{173}-5u^{172}+\cdots+16696u+15296)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$(y^{41} + 37y^{40} + \cdots - 1702y - 121)$ $\cdot (y^{173} + 110y^{172} + \cdots - 487431164y - 6145441)$
c_2	$(y^{41} + 18y^{40} + \cdots - 35y - 1)(y^{173} + 15y^{172} + \cdots + 6111y - 1)$
c_3	$(y^{41} + 33y^{40} + \cdots - 54y - 1)$ $\cdot (y^{173} + 10y^{172} + \cdots - 4426368712y - 22819729)$
c_5	$(y^{41} - 34y^{40} + \cdots + 25y - 1)$ $\cdot (y^{173} - 101y^{172} + \cdots + 2.92 \times 10^{22}y - 4.27 \times 10^{20})$
c_6, c_{10}	$(y^{41} - 39y^{40} + \cdots + 1699y - 121)$ $\cdot (y^{173} - 122y^{172} + \cdots + 882901y - 529)$
c_7	$(y^{41} + 10y^{40} + \cdots + 5512y - 961)$ $\cdot (y^{173} + 43y^{172} + \cdots + 128804976616151910y - 121716078315001)$
c_8, c_{12}	$(y^{41} + 20y^{40} + \cdots - 32y - 1)$ $\cdot (y^{173} + 105y^{172} + \cdots - 8693357120y - 233967616)$
c_9	$(y^{41} - 6y^{40} + \cdots - 4y - 1)(y^{173} - y^{172} + \cdots - 964y - 16)$
c_{11}	$(y^{41} - 15y^{40} + \cdots + 9675y - 625)$ $\cdot (y^{173} - 42y^{172} + \cdots - 3575854983007y - 107597776441)$