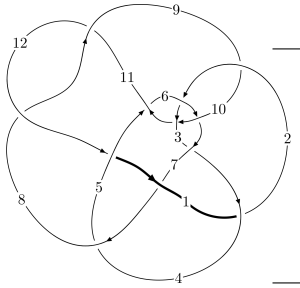
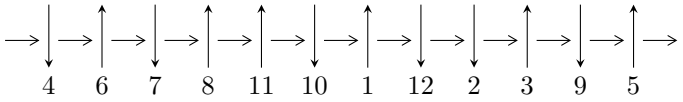
$12a_{0867}$ $(K12a_{0867})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -4.45856 \times 10^{1652} u^{203} + 2.23615 \times 10^{1653} u^{202} + \cdots + 3.93637 \times 10^{1652} b - 1.11413 \times 10^{1659}, \\ & - 1.12447 \times 10^{1659} u^{203} + 3.90032 \times 10^{1659} u^{202} + \cdots + 9.78542 \times 10^{1658} a - 7.08400 \times 10^{1665}, \\ & u^{204} - 6u^{203} + \cdots + 13656618u + 2485901 \rangle \\ I_2^u = \langle & -3.99801 \times 10^{62} u^{47} + 3.61993 \times 10^{63} u^{46} + \cdots + 2.53866 \times 10^{62} b - 2.49503 \times 10^{63}, \\ & - 3.34106 \times 10^{64} u^{47} + 5.34693 \times 10^{65} u^{46} + \cdots + 1.48004 \times 10^{65} a + 1.06585 \times 10^{67}, \\ & u^{48} - 9u^{47} + \cdots - 58u + 53 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 252 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. $\boldsymbol{I_1^u = \langle -4.46 \times 10^{1652} u^{203} + 2.24 \times 10^{1653} u^{202} + \cdots + 3.94 \times 10^{1652} b - 1.11 \times 10^{1659},\ -1.12 \times 10^{1659} u^{203} + 3.90 \times 10^{1659} u^{202} + \cdots + 9.79 \times 10^{1658} a - 7.08 \times 10^{1665},\ u^{204} - 6u^{203} + \cdots + 13656618u + 2485901 \rangle}$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} 1.14913u^{203} - 3.98585u^{202} + \cdots + 4.17631 \times 10^7 u + 7.23934 \times 10^6 \\ 1.13266u^{203} - 5.68074u^{202} + \cdots + 1.80208 \times 10^7 u + 2.83035 \times 10^6 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1.34497u^{203} - 15.0893u^{202} + \cdots - 8.37379 \times 10^7 u - 1.60630 \times 10^7 \\ 0.624337u^{203} - 1.59537u^{202} + \cdots + 2.91074 \times 10^7 u + 5.10734 \times 10^6 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.0164688u^{203} + 1.69489u^{202} + \cdots + 2.37423 \times 10^7 u + 4.40899 \times 10^6 \\ 1.13266u^{203} - 5.68074u^{202} + \cdots + 1.80208 \times 10^7 u + 2.83035 \times 10^6 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.758911u^{203} + 0.692576u^{202} + \cdots - 5.33054 \times 10^7 u - 9.53109 \times 10^6 \\ 0.104561u^{203} + 1.79786u^{202} + \cdots + 3.21925 \times 10^7 u + 5.92420 \times 10^6 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.239947u^{203} + 0.350290u^{202} + \cdots - 1.31194 \times 10^7 u - 2.41090 \times 10^6 \\ -1.43567u^{203} + 9.40565u^{202} + \cdots + 5.32932 \times 10^6 u + 1.62665 \times 10^6 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1.04271u^{203} - 12.2971u^{202} + \cdots - 7.25214 \times 10^7 u - 1.38402 \times 10^7 \\ 1.27042u^{203} - 5.44461u^{202} + \cdots + 3.18229 \times 10^7 u + 5.32378 \times 10^6 \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} -0.511692u^{203} + 4.99307u^{202} + \cdots + 2.34337 \times 10^7 u + 4.58125 \times 10^6 \\ 1.29741u^{203} - 6.77135u^{202} + \cdots + 1.72855 \times 10^7 u + 2.62336 \times 10^6 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.264271u^{203} - 4.03649u^{202} + \cdots - 3.11857 \times 10^7 u - 5.93501 \times 10^6 \\ 1.82361u^{203} - 8.86050u^{202} + \cdots + 3.30799 \times 10^7 u + 5.30940 \times 10^6 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes

$= -0.539639u^{203} - 2.26256u^{202} + \cdots - 7.03698 \times 10^7 u - 1.28489 \times 10^7$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$11(11u^{204}+171u^{203}+\cdots-6231u+443)$
c_2	$u^{204}-6u^{203}+\cdots+6585u+737$
c_3	$u^{204}-3u^{203}+\cdots-2321327084713u+643304208535$
c_4	$u^{204}+2u^{203}+\cdots+6641457u+742643$
c_5	$11(11u^{204}+14u^{203}+\cdots+1.52413\times10^{13}u+1.11793\times10^{12})$
c_6	$11(11u^{204}+58u^{203}+\cdots+15u+1)$
c_7	$u^{204}+u^{203}+\cdots+8125089u+260381$
c_8, c_{11}	$u^{204}+6u^{203}+\cdots-13656618u+2485901$
c_9	$u^{204}+u^{203}+\cdots-408235371u+22543039$
c_{10}	$u^{204}+u^{203}+\cdots-733531u+192929$
c_{12}	$11(11u^{204}+61u^{203}+\cdots+23u+1)$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$121(121y^{204}+41y^{203}+\cdots+7.46207\times10^{7}y+196249)$
c_2	$y^{204}+16y^{203}+\cdots+58072559y+543169$
c_3	$y^{204}-89y^{203}+\cdots-2.86\times10^{25}y+4.14\times10^{23}$
c_4	$y^{204}-46y^{203}+\cdots-47363971689995y+551518625449$
c_5	$121(121y^{204}+9374y^{203}+\cdots+3.12706\times10^{25}y+1.24976\times10^{24})$
c_6	$121(121y^{204}-2726y^{203}+\cdots+117y+1)$
c_7	$y^{204}+23y^{203}+\cdots+11743856834025y+67798265161$
c_8, c_{11}	$y^{204}+132y^{203}+\cdots+357972369982526y+6179703781801$
c_9	$y^{204}-9y^{203}+\cdots-45177724753263541y+508188607355521$
c_{10}	$y^{204}+59y^{203}+\cdots+6380936510163y+37221599041$
c_{12}	$121(121y^{204}-3831y^{203}+\cdots+105y+1)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.823478+0.563300I$ $a=-1.112680+0.455222I$ $b=-0.728254+0.470888I$	$-5.10902+4.39820I$	0
$u=-0.823478-0.563300I$ $a=-1.112680-0.455222I$ $b=-0.728254-0.470888I$	$-5.10902-4.39820I$	0
$u=-0.159947+0.981682I$ $a=0.278259-0.350237I$ $b=0.910060-1.031980I$	$-2.50183+1.79882I$	0
$u=-0.159947-0.981682I$ $a=0.278259+0.350237I$ $b=0.910060+1.031980I$	$-2.50183-1.79882I$	0
$u=-0.018854+1.009260I$ $a=-0.55681+2.34601I$ $b=0.799649+0.240782I$	$4.74916+0.08868I$	0
$u=-0.018854-1.009260I$ $a=-0.55681-2.34601I$ $b=0.799649-0.240782I$	$4.74916-0.08868I$	0
$u=-0.033632+1.012720I$ $a=-0.538835-0.625356I$ $b=1.73302-1.30223I$	$2.36339+3.07909I$	0
$u=-0.033632-1.012720I$ $a=-0.538835+0.625356I$ $b=1.73302+1.30223I$	$2.36339-3.07909I$	0
$u=0.960202+0.332336I$ $a=-0.384866-0.836146I$ $b=1.15074-0.93920I$	$-4.58415-0.14305I$	0
$u=0.960202-0.332336I$ $a=-0.384866+0.836146I$ $b=1.15074+0.93920I$	$-4.58415+0.14305I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.994649 + 0.210504I$ $a = 0.241512 - 0.832693I$ $b = 0.864296 - 0.568169I$	$-1.62457 - 2.11273I$	0
$u = 0.994649 - 0.210504I$ $a = 0.241512 + 0.832693I$ $b = 0.864296 + 0.568169I$	$-1.62457 + 2.11273I$	0
$u = -0.122253 + 0.966206I$ $a = 1.86689 - 0.10216I$ $b = -1.333520 - 0.071500I$	$-3.62878 + 6.56764I$	0
$u = -0.122253 - 0.966206I$ $a = 1.86689 + 0.10216I$ $b = -1.333520 + 0.071500I$	$-3.62878 - 6.56764I$	0
$u = -0.868012 + 0.439723I$ $a = 0.552366 - 0.911389I$ $b = -1.08048 - 1.00711I$	$-5.12728 - 8.60924I$	0
$u = -0.868012 - 0.439723I$ $a = 0.552366 + 0.911389I$ $b = -1.08048 + 1.00711I$	$-5.12728 + 8.60924I$	0
$u = -0.055671 + 1.030950I$ $a = 1.24849 + 1.77107I$ $b = -0.533549 + 0.021730I$	$-0.11230 + 3.40572I$	0
$u = -0.055671 - 1.030950I$ $a = 1.24849 - 1.77107I$ $b = -0.533549 - 0.021730I$	$-0.11230 - 3.40572I$	0
$u = 0.188339 + 1.015690I$ $a = 0.531576 + 0.800991I$ $b = -1.68492 + 1.27312I$	$-0.29177 - 7.00468I$	0
$u = 0.188339 - 1.015690I$ $a = 0.531576 - 0.800991I$ $b = -1.68492 - 1.27312I$	$-0.29177 + 7.00468I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.225400 + 1.011030I$ $a = -0.572802 - 0.440337I$ $b = 0.877863 + 0.073409I$	$1.45660 - 2.62442I$	0
$u = 0.225400 - 1.011030I$ $a = -0.572802 + 0.440337I$ $b = 0.877863 - 0.073409I$	$1.45660 + 2.62442I$	0
$u = -0.060207 + 1.039490I$ $a = 0.768909 - 1.050130I$ $b = -1.239090 - 0.650945I$	$3.50944 + 1.39703I$	0
$u = -0.060207 - 1.039490I$ $a = 0.768909 + 1.050130I$ $b = -1.239090 + 0.650945I$	$3.50944 - 1.39703I$	0
$u = -0.091095 + 1.049180I$ $a = -0.90913 + 1.22511I$ $b = 1.30627 + 0.74447I$	$1.84043 + 6.24977I$	0
$u = -0.091095 - 1.049180I$ $a = -0.90913 - 1.22511I$ $b = 1.30627 - 0.74447I$	$1.84043 - 6.24977I$	0
$u = 0.572617 + 0.897054I$ $a = -0.147903 + 0.949882I$ $b = -0.636687 + 0.974947I$	$0.12744 - 4.27664I$	0
$u = 0.572617 - 0.897054I$ $a = -0.147903 - 0.949882I$ $b = -0.636687 - 0.974947I$	$0.12744 + 4.27664I$	0
$u = 0.009644 + 1.064750I$ $a = 0.332412 - 1.096940I$ $b = -0.965173 - 0.167142I$	$3.95270 - 0.80622I$	0
$u = 0.009644 - 1.064750I$ $a = 0.332412 + 1.096940I$ $b = -0.965173 + 0.167142I$	$3.95270 + 0.80622I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.055453 + 0.929119I$ $a = 0.23290 + 1.83768I$ $b = -0.673410 + 0.780389I$	$-0.79781 - 3.20782I$	0
$u = 0.055453 - 0.929119I$ $a = 0.23290 - 1.83768I$ $b = -0.673410 - 0.780389I$	$-0.79781 + 3.20782I$	0
$u = 0.533091 + 0.930744I$ $a = -0.379653 - 0.256907I$ $b = -0.052472 - 1.390330I$	$-3.29487 - 4.09961I$	0
$u = 0.533091 - 0.930744I$ $a = -0.379653 + 0.256907I$ $b = -0.052472 + 1.390330I$	$-3.29487 + 4.09961I$	0
$u = -0.349105 + 0.855715I$ $a = 0.386266 - 0.332969I$ $b = 0.36360 - 1.59967I$	$-3.03794 + 4.88326I$	0
$u = -0.349105 - 0.855715I$ $a = 0.386266 + 0.332969I$ $b = 0.36360 + 1.59967I$	$-3.03794 - 4.88326I$	0
$u = -0.012207 + 1.081020I$ $a = -0.081150 + 0.177523I$ $b = 0.74087 + 1.66959I$	$2.55218 - 2.57578I$	0
$u = -0.012207 - 1.081020I$ $a = -0.081150 - 0.177523I$ $b = 0.74087 - 1.66959I$	$2.55218 + 2.57578I$	0
$u = 0.983421 + 0.453640I$ $a = 0.185131 + 0.919177I$ $b = -0.83733 + 1.14332I$	$-4.85248 - 1.32628I$	0
$u = 0.983421 - 0.453640I$ $a = 0.185131 - 0.919177I$ $b = -0.83733 - 1.14332I$	$-4.85248 + 1.32628I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.900430 + 0.046789I$ $a = -0.397176 - 1.112830I$ $b = -0.339662 - 1.026230I$	$-5.05468 - 1.03646I$	0
$u = 0.900430 - 0.046789I$ $a = -0.397176 + 1.112830I$ $b = -0.339662 + 1.026230I$	$-5.05468 + 1.03646I$	0
$u = -1.086760 + 0.180118I$ $a = 0.713465 - 0.636373I$ $b = 0.878058 - 0.810656I$	$-4.06793 - 7.40314I$	0
$u = -1.086760 - 0.180118I$ $a = 0.713465 + 0.636373I$ $b = 0.878058 + 0.810656I$	$-4.06793 + 7.40314I$	0
$u = -0.140176 + 1.097830I$ $a = -0.775001 + 0.753287I$ $b = 1.66028 + 0.97911I$	$-0.40231 + 5.62337I$	0
$u = -0.140176 - 1.097830I$ $a = -0.775001 - 0.753287I$ $b = 1.66028 - 0.97911I$	$-0.40231 - 5.62337I$	0
$u = 0.426724 + 1.022610I$ $a = 0.58526 - 1.58454I$ $b = 0.851671 - 0.204040I$	$4.97692 - 1.74200I$	0
$u = 0.426724 - 1.022610I$ $a = 0.58526 + 1.58454I$ $b = 0.851671 + 0.204040I$	$4.97692 + 1.74200I$	0
$u = -0.524600 + 0.981032I$ $a = 0.28788 - 1.61252I$ $b = -0.874971 - 0.728989I$	$-3.70188 + 0.64618I$	0
$u = -0.524600 - 0.981032I$ $a = 0.28788 + 1.61252I$ $b = -0.874971 + 0.728989I$	$-3.70188 - 0.64618I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.580959 + 0.951792I$ $a = -0.0248179 - 0.0641107I$ $b = -0.107435 - 1.096290I$	$-1.84881 - 0.08227I$	0
$u = \quad 0.580959 - 0.951792I$ $a = -0.0248179 + 0.0641107I$ $b = -0.107435 + 1.096290I$	$-1.84881 + 0.08227I$	0
$u = \quad 0.862039 + 0.183955I$ $a = -0.405432 - 0.559651I$ $b = \quad 0.106743 - 0.201309I$	$-1.83551 - 0.75978I$	0
$u = \quad 0.862039 - 0.183955I$ $a = -0.405432 + 0.559651I$ $b = \quad 0.106743 + 0.201309I$	$-1.83551 + 0.75978I$	0
$u = -0.358626 + 0.799271I$ $a = -0.561749 + 0.700866I$ $b = -0.854656 + 0.632934I$	$-3.72127 - 4.69543I$	0
$u = -0.358626 - 0.799271I$ $a = -0.561749 - 0.700866I$ $b = -0.854656 - 0.632934I$	$-3.72127 + 4.69543I$	0
$u = -0.810082 + 0.309115I$ $a = \quad 1.166620 - 0.722612I$ $b = \quad 0.705345 - 0.604688I$	$-5.11178 - 3.95186I$	0
$u = -0.810082 - 0.309115I$ $a = \quad 1.166620 + 0.722612I$ $b = \quad 0.705345 + 0.604688I$	$-5.11178 + 3.95186I$	0
$u = -0.193125 + 1.124750I$ $a = \quad 1.244800 + 0.616625I$ $b = -0.809450 - 0.129733I$	$3.83238 + 5.89545I$	0
$u = -0.193125 - 1.124750I$ $a = \quad 1.244800 - 0.616625I$ $b = -0.809450 + 0.129733I$	$3.83238 - 5.89545I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.138820 + 0.164637I$ $a = -0.305640 + 0.820478I$ $b = -0.99934 + 1.00545I$	$-4.36546 - 6.25108I$	0
$u = 1.138820 - 0.164637I$ $a = -0.305640 - 0.820478I$ $b = -0.99934 - 1.00545I$	$-4.36546 + 6.25108I$	0
$u = 0.538445 + 0.655385I$ $a = 0.212596 + 0.780859I$ $b = 0.858364 + 0.936856I$	$-3.07556 - 3.13171I$	0
$u = 0.538445 - 0.655385I$ $a = 0.212596 - 0.780859I$ $b = 0.858364 - 0.936856I$	$-3.07556 + 3.13171I$	0
$u = -0.062117 + 1.153960I$ $a = 0.708272 - 1.119720I$ $b = -1.019400 - 0.335192I$	$4.37653 + 1.13432I$	0
$u = -0.062117 - 1.153960I$ $a = 0.708272 + 1.119720I$ $b = -1.019400 + 0.335192I$	$4.37653 - 1.13432I$	0
$u = -0.188079 + 1.142150I$ $a = -1.15646 - 1.51891I$ $b = 0.607104 - 0.028968I$	$0.39463 + 12.01480I$	0
$u = -0.188079 - 1.142150I$ $a = -1.15646 + 1.51891I$ $b = 0.607104 + 0.028968I$	$0.39463 - 12.01480I$	0
$u = 0.736102 + 0.905107I$ $a = -0.043334 - 1.355720I$ $b = 0.968502 - 0.832361I$	$-2.68288 - 9.57782I$	0
$u = 0.736102 - 0.905107I$ $a = -0.043334 + 1.355720I$ $b = 0.968502 + 0.832361I$	$-2.68288 + 9.57782I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.355516+1.130840I$ $a=-0.580094+1.249070I$ $b=\ \ 0.668741+0.959909I$	$-3.18460+3.38677I$	0
$u=-0.355516-1.130840I$ $a=-0.580094-1.249070I$ $b=\ \ 0.668741-0.959909I$	$-3.18460-3.38677I$	0
$u=\ \ 0.244466+1.166510I$ $a=\ \ 1.06629-1.79403I$ $b=-0.516603-0.305161I$	$1.02084-2.51408I$	0
$u=\ \ 0.244466-1.166510I$ $a=\ \ 1.06629+1.79403I$ $b=-0.516603+0.305161I$	$1.02084+2.51408I$	0
$u=-0.490228+1.093460I$ $a=-0.233101+0.371358I$ $b=-0.47714+1.63910I$	$-3.04161+13.57980I$	0
$u=-0.490228-1.093460I$ $a=-0.233101-0.371358I$ $b=-0.47714-1.63910I$	$-3.04161-13.57980I$	0
$u=-0.746119+0.944938I$ $a=-0.340171-0.775356I$ $b=-0.974606-0.535852I$	$0.56651+1.85958I$	0
$u=-0.746119-0.944938I$ $a=-0.340171+0.775356I$ $b=-0.974606+0.535852I$	$0.56651-1.85958I$	0
$u=-0.788840+0.003756I$ $a=-0.76406+1.57952I$ $b=-0.360893+0.756966I$	$-6.54638-7.74882I$	0
$u=-0.788840-0.003756I$ $a=-0.76406-1.57952I$ $b=-0.360893-0.756966I$	$-6.54638+7.74882I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.010404 + 0.788202I$ $a = -1.69188 - 0.05580I$ $b = \quad 1.353060 + 0.150235I$	$-3.55109 - 0.61558I$	0
$u = \quad 0.010404 - 0.788202I$ $a = -1.69188 + 0.05580I$ $b = \quad 1.353060 - 0.150235I$	$-3.55109 + 0.61558I$	0
$u = \quad 0.117345 + 1.214120I$ $a = -1.39998 + 0.39236I$ $b = \quad 0.724406 + 0.226965I$	$1.35910 - 2.12759I$	0
$u = \quad 0.117345 - 1.214120I$ $a = -1.39998 - 0.39236I$ $b = \quad 0.724406 - 0.226965I$	$1.35910 + 2.12759I$	0
$u = -0.409372 + 0.663565I$ $a = \quad 0.202008 - 0.396413I$ $b = -0.24932 - 1.85810I$	$0.94021 + 4.73747I$	0
$u = -0.409372 - 0.663565I$ $a = \quad 0.202008 + 0.396413I$ $b = -0.24932 + 1.85810I$	$0.94021 - 4.73747I$	0
$u = -0.036900 + 1.225990I$ $a = \quad 0.0357274 + 0.0759274I$ $b = -1.83642 + 0.00945I$	$1.52225 + 5.45325I$	0
$u = -0.036900 - 1.225990I$ $a = \quad 0.0357274 - 0.0759274I$ $b = -1.83642 - 0.00945I$	$1.52225 - 5.45325I$	0
$u = -0.692406 + 1.013370I$ $a = \quad 0.102155 - 0.916905I$ $b = -1.149300 - 0.816536I$	$2.47205 + 2.41481I$	0
$u = -0.692406 - 1.013370I$ $a = \quad 0.102155 + 0.916905I$ $b = -1.149300 + 0.816536I$	$2.47205 - 2.41481I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.044567 + 1.228240I$ $a = -0.490813 + 0.927405I$ $b = 0.659267 - 0.048160I$	$2.56471 - 4.34052I$	0
$u = 0.044567 - 1.228240I$ $a = -0.490813 - 0.927405I$ $b = 0.659267 + 0.048160I$	$2.56471 + 4.34052I$	0
$u = 0.336003 + 1.186900I$ $a = -0.437990 - 0.336466I$ $b = -0.117505 - 0.877127I$	$-1.13927 - 5.42784I$	0
$u = 0.336003 - 1.186900I$ $a = -0.437990 + 0.336466I$ $b = -0.117505 + 0.877127I$	$-1.13927 + 5.42784I$	0
$u = 0.185955 + 1.229250I$ $a = -0.222101 + 0.274080I$ $b = 0.757082 + 0.458725I$	$1.77251 - 2.64461I$	0
$u = 0.185955 - 1.229250I$ $a = -0.222101 - 0.274080I$ $b = 0.757082 - 0.458725I$	$1.77251 + 2.64461I$	0
$u = -0.374813 + 0.650720I$ $a = 0.751105 + 0.726655I$ $b = 0.781253 - 0.462332I$	$0.85173 - 4.82958I$	0
$u = -0.374813 - 0.650720I$ $a = 0.751105 - 0.726655I$ $b = 0.781253 + 0.462332I$	$0.85173 + 4.82958I$	0
$u = 0.029709 + 1.249520I$ $a = 0.250971 - 1.051620I$ $b = -0.57655 - 1.37957I$	$2.60661 - 0.68432I$	0
$u = 0.029709 - 1.249520I$ $a = 0.250971 + 1.051620I$ $b = -0.57655 + 1.37957I$	$2.60661 + 0.68432I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.176720 + 0.446425I$ $a = -0.573983 + 0.039187I$ $b = -0.475353 - 0.042598I$	$-1.77145 - 1.28158I$	0
$u = 1.176720 - 0.446425I$ $a = -0.573983 - 0.039187I$ $b = -0.475353 + 0.042598I$	$-1.77145 + 1.28158I$	0
$u = -0.413843 + 0.613598I$ $a = -1.18847 + 0.91598I$ $b = 1.062370 + 0.743209I$	$-3.69020 - 1.41858I$	0
$u = -0.413843 - 0.613598I$ $a = -1.18847 - 0.91598I$ $b = 1.062370 - 0.743209I$	$-3.69020 + 1.41858I$	0
$u = 1.165430 + 0.480837I$ $a = 0.632453 + 0.455483I$ $b = 0.710967 + 0.606396I$	$-4.14766 + 3.05422I$	0
$u = 1.165430 - 0.480837I$ $a = 0.632453 - 0.455483I$ $b = 0.710967 - 0.606396I$	$-4.14766 - 3.05422I$	0
$u = -0.434002 + 1.193680I$ $a = -0.45375 + 1.35106I$ $b = 0.950166 + 0.860523I$	$-2.27502 + 8.53665I$	0
$u = -0.434002 - 1.193680I$ $a = -0.45375 - 1.35106I$ $b = 0.950166 - 0.860523I$	$-2.27502 - 8.53665I$	0
$u = 0.534285 + 1.169180I$ $a = 0.151130 + 0.398841I$ $b = 0.57035 + 1.38671I$	$-1.86834 - 5.19585I$	0
$u = 0.534285 - 1.169180I$ $a = 0.151130 - 0.398841I$ $b = 0.57035 - 1.38671I$	$-1.86834 + 5.19585I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.101997 + 1.290170I$ $a = -0.851308 - 1.116910I$ $b = 0.702914 - 0.170741I$	$6.84375 - 2.94433I$	0
$u = 0.101997 - 1.290170I$ $a = -0.851308 + 1.116910I$ $b = 0.702914 + 0.170741I$	$6.84375 + 2.94433I$	0
$u = -1.291690 + 0.129659I$ $a = -0.413096 - 0.786466I$ $b = -0.917976 - 0.917320I$	$-5.4179 + 15.5806I$	0
$u = -1.291690 - 0.129659I$ $a = -0.413096 + 0.786466I$ $b = -0.917976 + 0.917320I$	$-5.4179 - 15.5806I$	0
$u = 0.272255 + 1.273900I$ $a = 0.541345 + 0.650343I$ $b = -1.61202 + 0.91488I$	$5.44305 - 5.93125I$	0
$u = 0.272255 - 1.273900I$ $a = 0.541345 - 0.650343I$ $b = -1.61202 - 0.91488I$	$5.44305 + 5.93125I$	0
$u = -0.639282 + 0.274252I$ $a = 1.28758 - 1.19826I$ $b = 0.376578 - 0.723367I$	$-5.81373 + 0.43609I$	0
$u = -0.639282 - 0.274252I$ $a = 1.28758 + 1.19826I$ $b = 0.376578 + 0.723367I$	$-5.81373 - 0.43609I$	0
$u = 0.691982 + 0.053240I$ $a = -0.70485 + 1.53560I$ $b = -1.150310 + 0.605693I$	$-2.20762 - 6.98804I$	0
$u = 0.691982 - 0.053240I$ $a = -0.70485 - 1.53560I$ $b = -1.150310 - 0.605693I$	$-2.20762 + 6.98804I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.287880 + 0.242997I$ $a = 0.330960 - 0.859529I$ $b = 0.869127 - 0.900714I$	$-5.19202 - 6.55294I$	0
$u = 1.287880 - 0.242997I$ $a = 0.330960 + 0.859529I$ $b = 0.869127 + 0.900714I$	$-5.19202 + 6.55294I$	0
$u = 0.480264 + 1.223560I$ $a = 0.463576 + 0.849016I$ $b = -0.816084 + 1.122940I$	$-1.46993 - 3.91123I$	0
$u = 0.480264 - 1.223560I$ $a = 0.463576 - 0.849016I$ $b = -0.816084 - 1.122940I$	$-1.46993 + 3.91123I$	0
$u = 0.433492 + 0.503738I$ $a = -1.58591 - 1.11733I$ $b = 0.938251 - 0.189050I$	$-3.26584 - 0.82302I$	0
$u = 0.433492 - 0.503738I$ $a = -1.58591 + 1.11733I$ $b = 0.938251 + 0.189050I$	$-3.26584 + 0.82302I$	0
$u = -1.283770 + 0.416817I$ $a = 0.418690 + 0.132761I$ $b = 0.539371 + 0.359535I$	$-1.94826 - 6.48519I$	0
$u = -1.283770 - 0.416817I$ $a = 0.418690 - 0.132761I$ $b = 0.539371 - 0.359535I$	$-1.94826 + 6.48519I$	0
$u = -0.385031 + 1.296470I$ $a = 0.528181 - 1.200990I$ $b = -0.572218 - 0.982077I$	$-2.49895 + 12.04300I$	0
$u = -0.385031 - 1.296470I$ $a = 0.528181 + 1.200990I$ $b = -0.572218 + 0.982077I$	$-2.49895 - 12.04300I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.274538 + 1.325090I$ $a = 1.22608 + 1.77889I$ $b = -0.288434 + 0.222219I$	$1.32447 - 2.91857I$	0
$u = 0.274538 - 1.325090I$ $a = 1.22608 - 1.77889I$ $b = -0.288434 - 0.222219I$	$1.32447 + 2.91857I$	0
$u = -0.558478 + 0.319499I$ $a = -0.63277 - 1.39515I$ $b = -0.944801 - 0.640771I$	$2.30200 + 1.92240I$	0
$u = -0.558478 - 0.319499I$ $a = -0.63277 + 1.39515I$ $b = -0.944801 + 0.640771I$	$2.30200 - 1.92240I$	0
$u = -0.340255 + 1.321950I$ $a = 0.529256 - 0.967511I$ $b = -1.33935 - 0.84743I$	$7.17502 + 5.47686I$	0
$u = -0.340255 - 1.321950I$ $a = 0.529256 + 0.967511I$ $b = -1.33935 + 0.84743I$	$7.17502 - 5.47686I$	0
$u = -0.678733 + 1.189350I$ $a = -0.223772 - 0.836565I$ $b = -0.908377 - 0.182218I$	$1.53142 + 4.27194I$	0
$u = -0.678733 - 1.189350I$ $a = -0.223772 + 0.836565I$ $b = -0.908377 + 0.182218I$	$1.53142 - 4.27194I$	0
$u = 0.424936 + 1.337140I$ $a = 0.717288 + 1.163500I$ $b = -1.27396 + 0.69128I$	$2.15184 - 11.31530I$	0
$u = 0.424936 - 1.337140I$ $a = 0.717288 - 1.163500I$ $b = -1.27396 - 0.69128I$	$2.15184 + 11.31530I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.554917+1.297440I$ $a=-0.432387+1.101860I$ $b=\ \ 1.28486+0.92213I$	$-0.48742+13.18960I$	0
$u=-0.554917-1.297440I$ $a=-0.432387-1.101860I$ $b=\ \ 1.28486-0.92213I$	$-0.48742-13.18960I$	0
$u=\ \ 0.25146+1.39545I$ $a=-0.498043-0.936724I$ $b=\ \ 1.28754-1.06397I$	$4.13108-12.16480I$	0
$u=\ \ 0.25146-1.39545I$ $a=-0.498043+0.936724I$ $b=\ \ 1.28754+1.06397I$	$4.13108+12.16480I$	0
$u=\ \ 0.516869+0.255969I$ $a=-0.683349+0.457759I$ $b=\ \ 0.185207-0.561544I$	$-1.92383+0.25450I$	0
$u=\ \ 0.516869-0.255969I$ $a=-0.683349-0.457759I$ $b=\ \ 0.185207+0.561544I$	$-1.92383-0.25450I$	0
$u=-0.29823+1.39563I$ $a=-0.084692+0.736741I$ $b=\ \ 0.795401+0.138610I$	$7.29470-1.68908I$	0
$u=-0.29823-1.39563I$ $a=-0.084692-0.736741I$ $b=\ \ 0.795401-0.138610I$	$7.29470+1.68908I$	0
$u=-0.33941+1.40876I$ $a=-0.469823+0.569179I$ $b=\ \ 1.50303+0.79571I$	$4.13206-1.76042I$	0
$u=-0.33941-1.40876I$ $a=-0.469823-0.569179I$ $b=\ \ 1.50303-0.79571I$	$4.13206+1.76042I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.46363 + 1.38457I$ $a = -0.025719 + 0.774384I$ $b = -0.514273 - 0.047038I$	$1.89038 + 0.07032I$	0
$u = 0.46363 - 1.38457I$ $a = -0.025719 - 0.774384I$ $b = -0.514273 + 0.047038I$	$1.89038 - 0.07032I$	0
$u = 0.490479 + 0.201597I$ $a = -1.248070 + 0.124293I$ $b = -0.656366 - 0.959070I$	$-1.99639 + 4.27770I$	0
$u = 0.490479 - 0.201597I$ $a = -1.248070 - 0.124293I$ $b = -0.656366 + 0.959070I$	$-1.99639 - 4.27770I$	0
$u = 1.08987 + 0.98787I$ $a = 0.175388 + 0.184109I$ $b = 0.294606 + 0.637794I$	$-2.80365 - 1.22957I$	0
$u = 1.08987 - 0.98787I$ $a = 0.175388 - 0.184109I$ $b = 0.294606 - 0.637794I$	$-2.80365 + 1.22957I$	0
$u = 0.45433 + 1.40218I$ $a = -0.539132 - 0.959559I$ $b = 1.171750 - 0.637547I$	$3.42390 - 7.26474I$	0
$u = 0.45433 - 1.40218I$ $a = -0.539132 + 0.959559I$ $b = 1.171750 + 0.637547I$	$3.42390 + 7.26474I$	0
$u = 0.45498 + 1.40511I$ $a = -0.361787 - 0.797078I$ $b = 0.809915 - 0.326794I$	$3.24566 - 5.64780I$	0
$u = 0.45498 - 1.40511I$ $a = -0.361787 + 0.797078I$ $b = 0.809915 + 0.326794I$	$3.24566 + 5.64780I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.082253+0.505396I$ $a=-1.23209-0.87037I$ $b=\ \ 0.747455+0.450296I$	$1.66276-2.32132I$	0
$u=-0.082253-0.505396I$ $a=-1.23209+0.87037I$ $b=\ \ 0.747455-0.450296I$	$1.66276+2.32132I$	0
$u=\ \ 0.26307+1.47286I$ $a=\ \ 0.150364+0.582759I$ $b=-0.958767+0.440301I$	$5.12491-5.91315I$	0
$u=\ \ 0.26307-1.47286I$ $a=\ \ 0.150364-0.582759I$ $b=-0.958767-0.440301I$	$5.12491+5.91315I$	0
$u=\ \ 0.53274+1.40657I$ $a=\ \ 0.570014+0.912147I$ $b=-1.41995+0.88553I$	$0.47390-12.14240I$	0
$u=\ \ 0.53274-1.40657I$ $a=\ \ 0.570014-0.912147I$ $b=-1.41995-0.88553I$	$0.47390+12.14240I$	0
$u=\ \ 0.64017+1.37602I$ $a=-0.097450+0.779510I$ $b=-0.731556+0.369793I$	$1.58596-5.28856I$	0
$u=\ \ 0.64017-1.37602I$ $a=-0.097450-0.779510I$ $b=-0.731556-0.369793I$	$1.58596+5.28856I$	0
$u=-0.64275+1.37849I$ $a=\ \ 0.068645+0.862957I$ $b=\ \ 0.889647+0.283222I$	$1.61217+13.41700I$	0
$u=-0.64275-1.37849I$ $a=\ \ 0.068645-0.862957I$ $b=\ \ 0.889647-0.283222I$	$1.61217-13.41700I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.63922+1.38048I$ $a=-0.308348+0.896112I$ $b=\ \ 1.31197+0.91242I$	$4.3790+13.4789I$	0
$u=-0.63922-1.38048I$ $a=-0.308348-0.896112I$ $b=\ \ 1.31197-0.91242I$	$4.3790-13.4789I$	0
$u=-1.52103+0.18694I$ $a=\ \ 0.341080-0.311366I$ $b=\ \ 0.599751-0.751990I$	$0.43135-6.45917I$	0
$u=-1.52103-0.18694I$ $a=\ \ 0.341080+0.311366I$ $b=\ \ 0.599751+0.751990I$	$0.43135+6.45917I$	0
$u=\ \ 0.63716+1.39641I$ $a=-0.499958-0.731279I$ $b=\ \ 1.39582-0.78494I$	$1.08360-7.04644I$	0
$u=\ \ 0.63716-1.39641I$ $a=-0.499958+0.731279I$ $b=\ \ 1.39582+0.78494I$	$1.08360+7.04644I$	0
$u=-0.57526+1.44423I$ $a=\ \ 0.459658-1.009860I$ $b=-1.30488-0.93183I$	$-0.5322+22.0396I$	0
$u=-0.57526-1.44423I$ $a=\ \ 0.459658+1.009860I$ $b=-1.30488+0.93183I$	$-0.5322-22.0396I$	0
$u=-0.107291+0.410893I$ $a=-1.30911-3.21910I$ $b=\ \ 0.778970-0.716836I$	$-1.95037-10.40300I$	0
$u=-0.107291-0.410893I$ $a=-1.30911+3.21910I$ $b=\ \ 0.778970+0.716836I$	$-1.95037+10.40300I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.08016 + 1.57882I$ $a = 0.952471 + 0.276697I$ $b = -1.170420 + 0.238847I$	$2.86571 - 5.62153I$	0
$u = 0.08016 - 1.57882I$ $a = 0.952471 - 0.276697I$ $b = -1.170420 - 0.238847I$	$2.86571 + 5.62153I$	0
$u = -0.150561 + 0.383638I$ $a = 0.953151 + 1.005440I$ $b = 0.861598 - 0.944662I$	$-2.38742 - 4.15705I$	0
$u = -0.150561 - 0.383638I$ $a = 0.953151 - 1.005440I$ $b = 0.861598 + 0.944662I$	$-2.38742 + 4.15705I$	0
$u = 0.57877 + 1.48013I$ $a = -0.449771 - 1.003250I$ $b = 1.22549 - 0.91761I$	$0.09724 - 13.08690I$	0
$u = 0.57877 - 1.48013I$ $a = -0.449771 + 1.003250I$ $b = 1.22549 + 0.91761I$	$0.09724 + 13.08690I$	0
$u = 0.60104 + 1.48648I$ $a = 0.381029 + 0.702407I$ $b = -1.29270 + 1.01076I$	$1.69527 - 7.88022I$	0
$u = 0.60104 - 1.48648I$ $a = 0.381029 - 0.702407I$ $b = -1.29270 - 1.01076I$	$1.69527 + 7.88022I$	0
$u = 0.320485 + 0.208109I$ $a = 3.27064 - 2.86234I$ $b = -0.454573 - 0.520380I$	$-1.83951 + 0.20390I$	0
$u = 0.320485 - 0.208109I$ $a = 3.27064 + 2.86234I$ $b = -0.454573 + 0.520380I$	$-1.83951 - 0.20390I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.65109 + 0.03823I$ $a = -0.014839 + 0.398773I$ $b = 0.184142 + 1.328770I$	$-3.29052 - 0.34818I$	0
$u = 1.65109 - 0.03823I$ $a = -0.014839 - 0.398773I$ $b = 0.184142 - 1.328770I$	$-3.29052 + 0.34818I$	0
$u = -0.13769 + 1.66581I$ $a = -0.486087 - 0.024133I$ $b = 0.245622 + 0.013531I$	$-1.72259 - 4.44517I$	0
$u = -0.13769 - 1.66581I$ $a = -0.486087 + 0.024133I$ $b = 0.245622 - 0.013531I$	$-1.72259 + 4.44517I$	0
$u = -0.85381 + 1.47623I$ $a = -0.118402 - 0.449295I$ $b = -0.702620 + 0.020949I$	$3.40224 + 5.10531I$	0
$u = -0.85381 - 1.47623I$ $a = -0.118402 + 0.449295I$ $b = -0.702620 - 0.020949I$	$3.40224 - 5.10531I$	0
$u = 0.17526 + 1.70351I$ $a = -0.0703377 - 0.0314505I$ $b = 0.812824 - 0.043217I$	$3.47373 - 2.71578I$	0
$u = 0.17526 - 1.70351I$ $a = -0.0703377 + 0.0314505I$ $b = 0.812824 + 0.043217I$	$3.47373 + 2.71578I$	0
$u = -0.263057 + 0.019011I$ $a = -2.54197 - 0.13476I$ $b = -0.803087 + 0.073217I$	$1.196190 - 0.009281I$	$8.77806 - 0.26747I$
$u = -0.263057 - 0.019011I$ $a = -2.54197 + 0.13476I$ $b = -0.803087 - 0.073217I$	$1.196190 + 0.009281I$	$8.77806 + 0.26747I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.090317+0.147882I$ $a=\ \ 1.22492+3.25701I$ $b=-0.840218+0.985286I$	$1.08179-4.07828I$	$6.00525+1.10470I$
$u=-0.090317-0.147882I$ $a=\ \ 1.22492-3.25701I$ $b=-0.840218-0.985286I$	$1.08179+4.07828I$	$6.00525-1.10470I$
$u=-1.58700+1.60283I$ $a=-0.0644766+0.0357777I$ $b=-0.255507+0.434108I$	$-1.80807-7.13422I$	0
$u=-1.58700-1.60283I$ $a=-0.0644766-0.0357777I$ $b=-0.255507-0.434108I$	$-1.80807+7.13422I$	0

II. $I_2^u = \langle -4.00 \times 10^{62} u^{47} + 3.62 \times 10^{63} u^{46} + \cdots + 2.54 \times 10^{62} b - 2.50 \times 10^{63},\ -3.34 \times 10^{64} u^{47} + 5.35 \times 10^{65} u^{46} + \cdots + 1.48 \times 10^{65} a + 1.07 \times 10^{67},\ u^{48} - 9u^{47} + \cdots - 58u + 53 \rangle$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} 0.225742u^{47} - 3.61270u^{46} + \cdots + 106.244u - 72.0148 \\ 1.57485u^{47} - 14.2592u^{46} + \cdots + 55.1207u + 9.82815 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.854401u^{47} - 9.79599u^{46} + \cdots + 161.340u - 102.944 \\ 0.0738944u^{47} + 0.268820u^{46} + \cdots - 57.0125u + 50.3601 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -1.34911u^{47} + 10.6465u^{46} + \cdots + 51.1232u - 81.8429 \\ 1.57485u^{47} - 14.2592u^{46} + \cdots + 55.1207u + 9.82815 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1.39026u^{47} - 17.0558u^{46} + \cdots + 343.130u - 219.948 \\ 0.423039u^{47} - 1.16830u^{46} + \cdots - 167.286u + 145.696 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.420142u^{47} + 7.15431u^{46} + \cdots - 227.545u + 152.553 \\ -1.90444u^{47} + 15.1589u^{46} + \cdots + 30.9188u - 96.1049 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.0131832u^{47} - 4.26912u^{46} + \cdots + 270.688u - 234.401 \\ 1.52462u^{47} - 12.7165u^{46} + \cdots - 25.4571u + 75.8153 \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} -1.25910u^{47} + 10.2265u^{46} + \cdots + 27.9147u - 59.4887 \\ 1.78191u^{47} - 16.3561u^{46} + \cdots + 83.0703u - 2.84990 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 2.48395u^{47} - 22.0198u^{46} + \cdots + 130.913u + 3.15683 \\ 1.67073u^{47} - 13.7389u^{46} + \cdots - 28.1646u + 68.8728 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -7.09207u^{47} + 63.7960u^{46} + \cdots - 337.971u - 78.4205$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$11(11u^{48} - 162u^{47} + \cdots + 5u + 5)$
c_2	$u^{48} + 3u^{47} + \cdots + 9u + 11$
c_3	$u^{48} + 4u^{47} + \cdots + 111u + 97$
c_4	$u^{48} - 3u^{47} + \cdots + 79u + 11$
c_5	$11(11u^{48} - 51u^{47} + \cdots - 2440u + 425)$
c_6	$11(11u^{48} - 73u^{47} + \cdots - 5u + 1)$
c_7	$u^{48} - 2u^{47} + \cdots + 63u + 11$
c_8	$u^{48} - 9u^{47} + \cdots - 58u + 53$
c_9	$u^{48} - 2u^{47} + \cdots - 19u + 17$
c_{10}	$u^{48} + 17u^{46} + \cdots + 29u + 11$
c_{11}	$u^{48} + 9u^{47} + \cdots + 58u + 53$
c_{12}	$11(11u^{48} - 30u^{47} + \cdots + u + 1)$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$121(121y^{48}+464y^{47}+\cdots-565y+25)$
c_2	$y^{48}+3y^{47}+\cdots+2009y+121$
c_3	$y^{48}-14y^{47}+\cdots-313215y+9409$
c_4	$y^{48}-11y^{47}+\cdots-3513y+121$
c_5	$121(121y^{48}+1073y^{47}+\cdots+2323700y+180625)$
c_6	$121(121y^{48}-1831y^{47}+\cdots-45y+1)$
c_7	$y^{48}-6y^{47}+\cdots+2015y+121$
c_8, c_{11}	$y^{48}+27y^{47}+\cdots+23348y+2809$
c_9	$y^{48}+30y^{47}+\cdots+2325y+289$
c_{10}	$y^{48}+34y^{47}+\cdots-71y+121$
c_{12}	$121(121y^{48}-1956y^{47}+\cdots+43y+1)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.020560 + 0.059578I$ $a = -0.521931 + 0.889670I$ $b = -0.947963 + 0.871301I$	$-3.67958 - 6.17156I$	0
$u = 1.020560 - 0.059578I$ $a = -0.521931 - 0.889670I$ $b = -0.947963 - 0.871301I$	$-3.67958 + 6.17156I$	0
$u = -0.423085 + 0.877949I$ $a = 0.266538 + 0.188081I$ $b = 0.939177 - 0.619835I$	$-0.34347 - 5.13110I$	0
$u = -0.423085 - 0.877949I$ $a = 0.266538 - 0.188081I$ $b = 0.939177 + 0.619835I$	$-0.34347 + 5.13110I$	0
$u = -0.081942 + 1.036290I$ $a = 0.37493 - 1.76994I$ $b = -0.940809 - 0.260618I$	$5.59252 + 0.37644I$	0
$u = -0.081942 - 1.036290I$ $a = 0.37493 + 1.76994I$ $b = -0.940809 + 0.260618I$	$5.59252 - 0.37644I$	0
$u = -0.099045 + 1.047180I$ $a = -0.793639 + 0.712742I$ $b = 1.81621 + 0.92537I$	$0.24028 + 6.55226I$	0
$u = -0.099045 - 1.047180I$ $a = -0.793639 - 0.712742I$ $b = 1.81621 - 0.92537I$	$0.24028 - 6.55226I$	0
$u = 0.463047 + 0.963662I$ $a = -0.310972 - 0.398632I$ $b = -0.366384 - 1.292500I$	$-2.01422 - 4.12574I$	0
$u = 0.463047 - 0.963662I$ $a = -0.310972 + 0.398632I$ $b = -0.366384 + 1.292500I$	$-2.01422 + 4.12574I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.348415 + 1.012460I$ $a = 0.424751 + 1.049490I$ $b = -1.13700 + 1.17464I$	$-1.81681 - 5.89795I$	0
$u = 0.348415 - 1.012460I$ $a = 0.424751 - 1.049490I$ $b = -1.13700 - 1.17464I$	$-1.81681 + 5.89795I$	0
$u = -0.260060 + 0.891799I$ $a = 0.40328 + 1.69209I$ $b = 0.442482 + 0.737460I$	$-1.16378 + 3.86933I$	0
$u = -0.260060 - 0.891799I$ $a = 0.40328 - 1.69209I$ $b = 0.442482 - 0.737460I$	$-1.16378 - 3.86933I$	0
$u = 0.322283 + 1.058810I$ $a = -0.32019 + 1.97438I$ $b = -0.724819 + 0.171705I$	$4.52416 - 1.33006I$	0
$u = 0.322283 - 1.058810I$ $a = -0.32019 - 1.97438I$ $b = -0.724819 - 0.171705I$	$4.52416 + 1.33006I$	0
$u = 0.848431 + 0.168472I$ $a = 0.131548 + 1.127480I$ $b = -0.817155 + 0.860898I$	$-4.13960 - 0.14350I$	$-5.03839 + 0.I$
$u = 0.848431 - 0.168472I$ $a = 0.131548 - 1.127480I$ $b = -0.817155 - 0.860898I$	$-4.13960 + 0.14350I$	$-5.03839 + 0.I$
$u = 1.012300 + 0.588873I$ $a = 0.571286 - 0.229065I$ $b = 0.256746 + 0.158411I$	$-2.05709 - 1.10515I$	0
$u = 1.012300 - 0.588873I$ $a = 0.571286 + 0.229065I$ $b = 0.256746 - 0.158411I$	$-2.05709 + 1.10515I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.254540+1.156020I$ $a=\ \ 0.1403580-0.0076218I$ $b=-1.35018+0.64574I$	$2.11157+4.11612I$	0
$u=-0.254540-1.156020I$ $a=\ \ 0.1403580+0.0076218I$ $b=-1.35018-0.64574I$	$2.11157-4.11612I$	0
$u=\ \ 0.740640+0.925361I$ $a=\ \ 0.304689-0.715656I$ $b=\ \ 0.921977-0.586632I$	$0.78218-1.87843I$	0
$u=\ \ 0.740640-0.925361I$ $a=\ \ 0.304689+0.715656I$ $b=\ \ 0.921977+0.586632I$	$0.78218+1.87843I$	0
$u=-0.380631+1.128760I$ $a=-0.175743-1.390820I$ $b=-0.455920-0.846300I$	$-0.94551+12.60900I$	0
$u=-0.380631-1.128760I$ $a=-0.175743+1.390820I$ $b=-0.455920+0.846300I$	$-0.94551-12.60900I$	0
$u=-0.105071+1.203420I$ $a=\ \ 0.404050-0.661355I$ $b=-1.16970-1.46170I$	$2.97536-1.85225I$	0
$u=-0.105071-1.203420I$ $a=\ \ 0.404050+0.661355I$ $b=-1.16970+1.46170I$	$2.97536+1.85225I$	0
$u=-0.423640+0.652872I$ $a=\ \ 0.202449+0.607854I$ $b=\ \ 0.57156+1.48292I$	$1.27459+4.73327I$	$12.6951-12.6295I$
$u=-0.423640-0.652872I$ $a=\ \ 0.202449-0.607854I$ $b=\ \ 0.57156-1.48292I$	$1.27459-4.73327I$	$12.6951+12.6295I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.134521 + 1.261510I$ $a = -1.67845 + 1.30001I$ $b = 0.382572 + 0.089416I$	$1.46152 - 2.69471I$	0
$u = 0.134521 - 1.261510I$ $a = -1.67845 - 1.30001I$ $b = 0.382572 - 0.089416I$	$1.46152 + 2.69471I$	0
$u = 0.113169 + 1.372220I$ $a = -0.622355 - 0.264786I$ $b = 0.972714 - 0.428116I$	$5.61016 - 3.95415I$	0
$u = 0.113169 - 1.372220I$ $a = -0.622355 + 0.264786I$ $b = 0.972714 + 0.428116I$	$5.61016 + 3.95415I$	0
$u = 0.095583 + 0.567339I$ $a = 1.91480 + 0.38451I$ $b = -1.265590 + 0.418189I$	$-4.06186 + 0.64645I$	$-14.2909 + 1.0254I$
$u = 0.095583 - 0.567339I$ $a = 1.91480 - 0.38451I$ $b = -1.265590 - 0.418189I$	$-4.06186 - 0.64645I$	$-14.2909 - 1.0254I$
$u = 0.52071 + 1.38516I$ $a = 0.535218 + 0.987297I$ $b = -1.33404 + 0.87930I$	$0.85421 - 11.76320I$	0
$u = 0.52071 - 1.38516I$ $a = 0.535218 - 0.987297I$ $b = -1.33404 - 0.87930I$	$0.85421 + 11.76320I$	0
$u = 0.62422 + 1.38740I$ $a = -0.007551 - 0.668605I$ $b = 0.745450 - 0.195378I$	$2.52561 - 4.46494I$	0
$u = 0.62422 - 1.38740I$ $a = -0.007551 + 0.668605I$ $b = 0.745450 + 0.195378I$	$2.52561 + 4.46494I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.47713 + 1.50793I$ $a = -0.550172 - 0.704910I$ $b = 1.35345 - 0.76061I$	$2.34916 - 7.47849I$	0
$u = 0.47713 - 1.50793I$ $a = -0.550172 + 0.704910I$ $b = 1.35345 + 0.76061I$	$2.34916 + 7.47849I$	0
$u = 1.66038 + 0.24868I$ $a = -0.033942 - 0.388097I$ $b = -0.029506 - 1.234790I$	$-3.38739 - 0.10775I$	0
$u = 1.66038 - 0.24868I$ $a = -0.033942 + 0.388097I$ $b = -0.029506 + 1.234790I$	$-3.38739 + 0.10775I$	0
$u = -0.245794 + 0.145315I$ $a = 2.34820 - 4.07379I$ $b = 0.896756 + 0.034256I$	$-5.03821 + 6.07898I$	$-6.31753 - 5.17162I$
$u = -0.245794 - 0.145315I$ $a = 2.34820 + 4.07379I$ $b = 0.896756 - 0.034256I$	$-5.03821 - 6.07898I$	$-6.31753 + 5.17162I$
$u = -1.60757 + 1.31899I$ $a = -0.145236 - 0.096912I$ $b = -0.260032 + 0.322078I$	$-1.65380 - 7.12368I$	0
$u = -1.60757 - 1.31899I$ $a = -0.145236 + 0.096912I$ $b = -0.260032 - 0.322078I$	$-1.65380 + 7.12368I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$121(11u^{48}-162u^{47}+\cdots+5u+5)$ $\cdot(11u^{204}+171u^{203}+\cdots-6231u+443)$
c_2	$(u^{48}+3u^{47}+\cdots+9u+11)(u^{204}-6u^{203}+\cdots+6585u+737)$
c_3	$(u^{48}+4u^{47}+\cdots+111u+97)$ $\cdot(u^{204}-3u^{203}+\cdots-2321327084713u+643304208535)$
c_4	$(u^{48}-3u^{47}+\cdots+79u+11)$ $\cdot(u^{204}+2u^{203}+\cdots+6641457u+742643)$
c_5	$121(11u^{48}-51u^{47}+\cdots-2440u+425)$ $\cdot(11u^{204}+14u^{203}+\cdots+15241257498888u+1117928706065)$
c_6	$121(11u^{48}-73u^{47}+\cdots-5u+1)(11u^{204}+58u^{203}+\cdots+15u+1)$
c_7	$(u^{48}-2u^{47}+\cdots+63u+11)(u^{204}+u^{203}+\cdots+8125089u+260381)$
c_8	$(u^{48}-9u^{47}+\cdots-58u+53)$ $\cdot(u^{204}+6u^{203}+\cdots-13656618u+2485901)$
c_9	$(u^{48}-2u^{47}+\cdots-19u+17)$ $\cdot(u^{204}+u^{203}+\cdots-408235371u+22543039)$
c_{10}	$(u^{48}+17u^{46}+\cdots+29u+11)(u^{204}+u^{203}+\cdots-733531u+192929)$
c_{11}	$(u^{48}+9u^{47}+\cdots+58u+53)$ $\cdot(u^{204}+6u^{203}+\cdots-13656618u+2485901)$
c_{12}	$121(11u^{48}-30u^{47}+\cdots+u+1)(11u^{204}+61u^{203}+\cdots+23u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$14641(121y^{48}+464y^{47}+\cdots-565y+25)$ $\cdot(121y^{204}+41y^{203}+\cdots+74620737y+196249)$
c_2	$(y^{48}+3y^{47}+\cdots+2009y+121)$ $\cdot(y^{204}+16y^{203}+\cdots+58072559y+543169)$
c_3	$(y^{48}-14y^{47}+\cdots-313215y+9409)$ $\cdot(y^{204}-89y^{203}+\cdots-2.86\times10^{25}y+4.14\times10^{23})$
c_4	$(y^{48}-11y^{47}+\cdots-3513y+121)$ $\cdot(y^{204}-46y^{203}+\cdots-47363971689995y+551518625449)$
c_5	$14641(121y^{48}+1073y^{47}+\cdots+2323700y+180625)$ $\cdot(121y^{204}+9374y^{203}+\cdots+3.13\times10^{25}y+1.25\times10^{24})$
c_6	$14641(121y^{48}-1831y^{47}+\cdots-45y+1)$ $\cdot(121y^{204}-2726y^{203}+\cdots+117y+1)$
c_7	$(y^{48}-6y^{47}+\cdots+2015y+121)$ $\cdot(y^{204}+23y^{203}+\cdots+11743856834025y+67798265161)$
c_8, c_{11}	$(y^{48}+27y^{47}+\cdots+23348y+2809)$ $\cdot(y^{204}+132y^{203}+\cdots+357972369982526y+6179703781801)$
c_9	$(y^{48}+30y^{47}+\cdots+2325y+289)$ $\cdot(y^{204}-9y^{203}+\cdots-45177724753263541y+508188607355521)$
c_{10}	$(y^{48}+34y^{47}+\cdots-71y+121)$ $\cdot(y^{204}+59y^{203}+\cdots+6380936510163y+37221599041)$
c_{12}	$14641(121y^{48}-1956y^{47}+\cdots+43y+1)$ $\cdot(121y^{204}-3831y^{203}+\cdots+105y+1)$