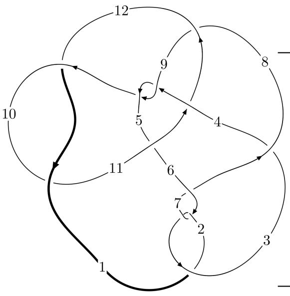
$12a_{0509}$ $(K12a_{0509})$



A knot diagram[1]

Linearized knot diagam

$$\rightarrow \underset{3}{\downarrow} \rightarrow \underset{7}{\downarrow} \rightarrow \underset{8}{\downarrow} \rightarrow \underset{9}{\uparrow} \rightarrow \underset{11}{\uparrow} \rightarrow \underset{2}{\downarrow} \rightarrow \underset{6}{\downarrow} \rightarrow \underset{12}{\downarrow} \rightarrow \underset{5}{\uparrow} \rightarrow \underset{1}{\downarrow} \rightarrow \underset{4}{\uparrow} \rightarrow \underset{10}{\downarrow} \rightarrow$$

Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -1.78105 \times 10^{290} u^{107} + 1.60836 \times 10^{290} u^{106} + \cdots + 3.54086 \times 10^{291} b - 2.25324 \times 10^{291}, \\ & -1.68797 \times 10^{292} u^{107} + 7.50224 \times 10^{291} u^{106} + \cdots + 1.16848 \times 10^{293} a - 1.63357 \times 10^{293}, \\ & u^{108} - 2u^{107} + \cdots - 3u^2 + 1 \rangle \\ I_2^u = \langle & b,\ a+1,\ u+1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 109 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. $\boldsymbol{I_1^u = \langle -1.78\times 10^{290}u^{107} + 1.61\times 10^{290}u^{106} + \cdots + 3.54\times 10^{291}b - 2.25\times 10^{291},\ -1.69\times 10^{292}u^{107} + 7.50\times 10^{291}u^{106} + \cdots + 1.17\times 10^{293}a - 1.63\times 10^{293},\ u^{108} - 2u^{107} + \cdots - 3u^2 + 1\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_9 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_5 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}u\\-u^3+u\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}0.144459u^{107} - 0.0642050u^{106} + \cdots - 0.623690u + 1.39803\\0.0503000u^{107} - 0.0454230u^{106} + \cdots + 1.89807u + 0.636356\end{pmatrix}$$
$$a_1 = \begin{pmatrix}0.0112300u^{107} + 0.207726u^{106} + \cdots - 1.38853u + 0.756202\\-u^3+u\end{pmatrix}$$
$$a_8 = \begin{pmatrix}3.64516u^{107} - 3.71116u^{106} + \cdots - 2.65234u - 6.17436\\-0.146240u^{107} + 0.203332u^{106} + \cdots - 0.752096u - 1.29717\end{pmatrix}$$
$$a_3 = \begin{pmatrix}2.16323u^{107} - 2.00756u^{106} + \cdots - 1.52409u - 0.229475\\0.0623410u^{107} + 0.0227712u^{106} + \cdots + 0.941552u + 0.128731\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}0.0941586u^{107} - 0.0187819u^{106} + \cdots - 2.52176u + 0.761675\\0.0503000u^{107} - 0.0454230u^{106} + \cdots + 1.89807u + 0.636356\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-4.66146u^{107} + 5.27089u^{106} + \cdots + 2.68247u + 6.80830\\-0.304016u^{107} + 0.592629u^{106} + \cdots - 0.844491u - 0.264806\end{pmatrix}$$
$$a_7 = \begin{pmatrix}3.63714u^{107} - 3.05931u^{106} + \cdots + 0.937464u - 4.97673\\-0.184958u^{107} + 0.337994u^{106} + \cdots - 1.11297u - 0.562464\end{pmatrix}$$
$$a_2 = \begin{pmatrix}1.98561u^{107} - 1.42635u^{106} + \cdots - 5.91663u - 1.39635\\-0.121188u^{107} + 0.380071u^{106} + \cdots + 0.892331u - 0.0283241\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 3.32154u^{107} - 2.84726u^{106} + \cdots - 14.1969u - 3.91869$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{108} + 36u^{107} + \cdots + 6u + 1$
c_2, c_6	$u^{108} - 2u^{107} + \cdots - 2u + 1$
c_3	$u^{108} + 4u^{107} + \cdots + 487368u + 75901$
c_4, c_9	$u^{108} - 2u^{107} + \cdots - 3u^2 + 1$
c_5	$33(33u^{108} + 126u^{107} + \cdots + 888u - 139)$
c_8	$33(33u^{108} - 390u^{107} + \cdots + 18u - 1)$
c_{10}, c_{12}	$u^{108} - 3u^{107} + \cdots - 618u + 49$
c_{11}	$u^{108} - 3u^{107} + \cdots - 384u - 231$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{108} + 72y^{107} + \cdots + 18y + 1$
c_2, c_6	$y^{108} - 36y^{107} + \cdots - 6y + 1$
c_3	$y^{108} - 48y^{107} + \cdots - 182916038914y + 5760961801$
c_4, c_9	$y^{108} - 64y^{107} + \cdots - 6y + 1$
c_5	$1089(1089y^{108} + 76788y^{107} + \cdots - 1572226y + 19321)$
c_8	$1089(1089y^{108} + 74412y^{107} + \cdots - 206y + 1)$
c_{10}, c_{12}	$y^{108} - 69y^{107} + \cdots - 277554y + 2401$
c_{11}	$y^{108} - 9y^{107} + \cdots + 893430y + 53361$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.925744 + 0.378027I$ $a = -0.424665 - 0.306104I$ $b = -0.69136 - 1.65988I$	$-0.33884 - 4.17825I$	0
$u = -0.925744 - 0.378027I$ $a = -0.424665 + 0.306104I$ $b = -0.69136 + 1.65988I$	$-0.33884 + 4.17825I$	0
$u = 0.921133 + 0.391082I$ $a = 0.466764 - 0.239826I$ $b = 0.76927 - 1.74937I$	$-1.46043 + 9.58568I$	0
$u = 0.921133 - 0.391082I$ $a = 0.466764 + 0.239826I$ $b = 0.76927 + 1.74937I$	$-1.46043 - 9.58568I$	0
$u = -0.848255 + 0.559300I$ $a = -0.789114 + 0.479083I$ $b = -0.645673 - 0.058019I$	$2.99631 + 4.71722I$	0
$u = -0.848255 - 0.559300I$ $a = -0.789114 - 0.479083I$ $b = -0.645673 + 0.058019I$	$2.99631 - 4.71722I$	0
$u = 1.014520 + 0.076956I$ $a = 2.45207 - 5.72196I$ $b = -0.021423 - 0.312109I$	$1.77087 - 0.01042I$	0
$u = 1.014520 - 0.076956I$ $a = 2.45207 + 5.72196I$ $b = -0.021423 + 0.312109I$	$1.77087 + 0.01042I$	0
$u = -1.026590 + 0.059563I$ $a = -4.51531 - 6.54930I$ $b = 0.084458 - 0.254370I$	$0.89202 + 5.38333I$	0
$u = -1.026590 - 0.059563I$ $a = -4.51531 + 6.54930I$ $b = 0.084458 + 0.254370I$	$0.89202 - 5.38333I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.890427 + 0.380807I$ $a = 0.303584 - 0.136076I$ $b = 0.96363 - 1.55607I$	$-5.87089 + 3.60473I$	0
$u = 0.890427 - 0.380807I$ $a = 0.303584 + 0.136076I$ $b = 0.96363 + 1.55607I$	$-5.87089 - 3.60473I$	0
$u = -0.402522 + 0.872226I$ $a = -0.851587 + 0.024864I$ $b = -0.769645 - 0.059732I$	$3.17014 + 4.56924I$	0
$u = -0.402522 - 0.872226I$ $a = -0.851587 - 0.024864I$ $b = -0.769645 + 0.059732I$	$3.17014 - 4.56924I$	0
$u = 1.038340 + 0.189468I$ $a = 1.17845 - 1.13861I$ $b = -0.015139 - 0.648279I$	$2.69941 + 0.12491I$	0
$u = 1.038340 - 0.189468I$ $a = 1.17845 + 1.13861I$ $b = -0.015139 + 0.648279I$	$2.69941 - 0.12491I$	0
$u = 0.927128 + 0.143943I$ $a = -0.74188 - 2.07907I$ $b = 0.334650 - 0.476961I$	$-0.117691 + 0.649963I$	0
$u = 0.927128 - 0.143943I$ $a = -0.74188 + 2.07907I$ $b = 0.334650 + 0.476961I$	$-0.117691 - 0.649963I$	0
$u = -0.888497 + 0.299241I$ $a = 0.062931 - 0.490294I$ $b = -0.714295 - 1.060540I$	$-1.24184 - 2.64418I$	0
$u = -0.888497 - 0.299241I$ $a = 0.062931 + 0.490294I$ $b = -0.714295 + 1.060540I$	$-1.24184 + 2.64418I$	0

Solutions to I^u_1	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.052240 + 0.179848I$ $a = -1.26879 - 0.62622I$ $b = 0.041151 - 0.545307I$	$2.10034 - 5.29369I$	0
$u = -1.052240 - 0.179848I$ $a = -1.26879 + 0.62622I$ $b = 0.041151 + 0.545307I$	$2.10034 + 5.29369I$	0
$u = 0.848712 + 0.369880I$ $a = 0.0752943 + 0.0150683I$ $b = 1.17863 - 1.30099I$	$-2.21585 - 2.34815I$	0
$u = 0.848712 - 0.369880I$ $a = 0.0752943 - 0.0150683I$ $b = 1.17863 + 1.30099I$	$-2.21585 + 2.34815I$	0
$u = -0.848985 + 0.329851I$ $a = 0.111920 - 0.165045I$ $b = -1.00757 - 1.09207I$	$-1.16913 - 2.62387I$	0
$u = -0.848985 - 0.329851I$ $a = 0.111920 + 0.165045I$ $b = -1.00757 + 1.09207I$	$-1.16913 + 2.62387I$	0
$u = -1.061310 + 0.305657I$ $a = -0.598212 - 0.788151I$ $b = 0.305065 - 1.165900I$	$2.24352 - 4.94196I$	0
$u = -1.061310 - 0.305657I$ $a = -0.598212 + 0.788151I$ $b = 0.305065 + 1.165900I$	$2.24352 + 4.94196I$	0
$u = 0.120929 + 1.104430I$ $a = 0.732120 - 0.854405I$ $b = 0.871944 - 0.960259I$	$-3.64394 - 12.82890I$	0
$u = 0.120929 - 1.104430I$ $a = 0.732120 + 0.854405I$ $b = 0.871944 + 0.960259I$	$-3.64394 + 12.82890I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.132220 + 1.107000I$ $a = -0.723155 - 0.803219I$ $b = -0.850918 - 0.901810I$	$-2.37530 + 7.05611I$	0
$u = -0.132220 - 1.107000I$ $a = -0.723155 + 0.803219I$ $b = -0.850918 + 0.901810I$	$-2.37530 - 7.05611I$	0
$u = 0.118718 + 1.137740I$ $a = 0.584529 - 0.837104I$ $b = 0.694229 - 0.966561I$	$-8.92521 - 6.29536I$	0
$u = 0.118718 - 1.137740I$ $a = 0.584529 + 0.837104I$ $b = 0.694229 + 0.966561I$	$-8.92521 + 6.29536I$	0
$u = 0.920607 + 0.684791I$ $a = 0.604950 + 0.505920I$ $b = 0.677981 + 0.023970I$	$3.79025 + 1.05337I$	0
$u = 0.920607 - 0.684791I$ $a = 0.604950 - 0.505920I$ $b = 0.677981 - 0.023970I$	$3.79025 - 1.05337I$	0
$u = -0.157182 + 1.163090I$ $a = -0.539188 - 0.679767I$ $b = -0.618550 - 0.791581I$	$-4.09827 + 3.93224I$	0
$u = -0.157182 - 1.163090I$ $a = -0.539188 + 0.679767I$ $b = -0.618550 + 0.791581I$	$-4.09827 - 3.93224I$	0
$u = 1.124520 + 0.348742I$ $a = 0.578466 - 0.825190I$ $b = -0.83558 - 1.22876I$	$1.94202 + 0.30856I$	0
$u = 1.124520 - 0.348742I$ $a = 0.578466 + 0.825190I$ $b = -0.83558 + 1.22876I$	$1.94202 - 0.30856I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.359054 + 0.726041I$ $a = 0.950975 + 0.191225I$ $b = 0.759127 + 0.105143I$	$3.58114 + 1.18791I$	$1.84333 + 0.I$
$u = 0.359054 - 0.726041I$ $a = 0.950975 - 0.191225I$ $b = 0.759127 - 0.105143I$	$3.58114 - 1.18791I$	$1.84333 + 0.I$
$u = 0.119524 + 1.202100I$ $a = 0.382622 - 0.727957I$ $b = 0.445296 - 0.864404I$	$-6.28289 + 0.74941I$	0
$u = 0.119524 - 1.202100I$ $a = 0.382622 + 0.727957I$ $b = 0.445296 + 0.864404I$	$-6.28289 - 0.74941I$	0
$u = 1.161530 + 0.383511I$ $a = 0.517820 - 0.931592I$ $b = -1.26404 - 1.22400I$	$-0.91867 + 6.16427I$	0
$u = 1.161530 - 0.383511I$ $a = 0.517820 + 0.931592I$ $b = -1.26404 + 1.22400I$	$-0.91867 - 6.16427I$	0
$u = 1.210810 + 0.192388I$ $a = 0.512975 - 0.445035I$ $b = -0.620722 - 0.356967I$	$2.76716 + 0.74119I$	0
$u = 1.210810 - 0.192388I$ $a = 0.512975 + 0.445035I$ $b = -0.620722 + 0.356967I$	$2.76716 - 0.74119I$	0
$u = -1.179740 + 0.354059I$ $a = -0.456047 - 0.852388I$ $b = 1.15794 - 0.95235I$	$3.30225 - 4.39680I$	0
$u = -1.179740 - 0.354059I$ $a = -0.456047 + 0.852388I$ $b = 1.15794 + 0.95235I$	$3.30225 + 4.39680I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.179270 + 0.399117I$ $a = 0.469183 - 0.996289I$ $b = -1.48757 - 1.17355I$	$4.03392 + 12.09010I$	0
$u = 1.179270 - 0.399117I$ $a = 0.469183 + 0.996289I$ $b = -1.48757 + 1.17355I$	$4.03392 - 12.09010I$	0
$u = -1.184000 + 0.392776I$ $a = -0.448656 - 0.975463I$ $b = 1.45864 - 1.10051I$	$5.12288 - 6.47021I$	0
$u = -1.184000 - 0.392776I$ $a = -0.448656 + 0.975463I$ $b = 1.45864 + 1.10051I$	$5.12288 + 6.47021I$	0
$u = -1.251960 + 0.353472I$ $a = -0.235813 - 0.800576I$ $b = 1.34319 - 0.46896I$	$8.08609 - 4.85702I$	0
$u = -1.251960 - 0.353472I$ $a = -0.235813 + 0.800576I$ $b = 1.34319 + 0.46896I$	$8.08609 + 4.85702I$	0
$u = 1.266890 + 0.344460I$ $a = 0.203311 - 0.751783I$ $b = -1.293520 - 0.367706I$	$7.96559 - 0.80034I$	0
$u = 1.266890 - 0.344460I$ $a = 0.203311 + 0.751783I$ $b = -1.293520 + 0.367706I$	$7.96559 + 0.80034I$	0
$u = 0.571599 + 0.353726I$ $a = -1.18919 + 1.04297I$ $b = 1.54397 + 0.18503I$	$-2.93513 + 5.72866I$	$-8.97675 - 7.05459I$
$u = 0.571599 - 0.353726I$ $a = -1.18919 - 1.04297I$ $b = 1.54397 - 0.18503I$	$-2.93513 - 5.72866I$	$-8.97675 + 7.05459I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.580654+0.313057I$ $a=\;\;1.27402+0.86525I$ $b=-1.394500+0.092527I$	$-1.85726-0.55088I$	$-6.98907+1.92903I$
$u=-0.580654-0.313057I$ $a=\;\;1.27402-0.86525I$ $b=-1.394500-0.092527I$	$-1.85726+0.55088I$	$-6.98907-1.92903I$
$u=-0.639538$ $a=-0.867624$ $b=-0.334991$	-1.72228	-4.61080
$u=\;\;0.001334+0.616486I$ $a=-1.50766+0.86763I$ $b=-0.713042+0.973471I$	$0.67445-8.26204I$	$-4.89690+7.40535I$
$u=\;\;0.001334-0.616486I$ $a=-1.50766-0.86763I$ $b=-0.713042-0.973471I$	$0.67445+8.26204I$	$-4.89690-7.40535I$
$u=\;\;0.500276+0.359081I$ $a=-1.43423+1.24440I$ $b=\;\;1.40023+0.46950I$	$-6.87828-0.19248I$	$-13.90816-1.39132I$
$u=\;\;0.500276-0.359081I$ $a=-1.43423-1.24440I$ $b=\;\;1.40023-0.46950I$	$-6.87828+0.19248I$	$-13.90816+1.39132I$
$u=\;\;1.240460+0.614749I$ $a=\;\;0.003425+1.039780I$ $b=\;\;1.081660+0.532522I$	$6.13608+4.49586I$	0
$u=\;\;1.240460-0.614749I$ $a=\;\;0.003425-1.039780I$ $b=\;\;1.081660-0.532522I$	$6.13608-4.49586I$	0
$u=\;\;0.021502+0.608380I$ $a=\;\;1.42889+0.82516I$ $b=\;\;0.701016+0.881446I$	$1.69122+2.69833I$	$-2.72518-2.65013I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.021502 - 0.608380I$ $a = 1.42889 - 0.82516I$ $b = 0.701016 - 0.881446I$	$1.69122 - 2.69833I$	$-2.72518 + 2.65013I$
$u = -1.253540 + 0.606907I$ $a = 0.062150 + 1.078220I$ $b = -1.124860 + 0.600189I$	$5.97676 - 10.40370I$	0
$u = -1.253540 - 0.606907I$ $a = 0.062150 - 1.078220I$ $b = -1.124860 - 0.600189I$	$5.97676 + 10.40370I$	0
$u = 0.435534 + 0.384489I$ $a = -1.57911 + 1.46008I$ $b = 1.25735 + 0.74206I$	$-2.70870 - 6.10751I$	$-8.83271 + 3.91756I$
$u = 0.435534 - 0.384489I$ $a = -1.57911 - 1.46008I$ $b = 1.25735 - 0.74206I$	$-2.70870 + 6.10751I$	$-8.83271 - 3.91756I$
$u = -0.576998$ $a = 1.98015$ $b = -0.871890$	-2.23074	-7.51560
$u = -1.30755 + 0.58360I$ $a = 0.442721 + 1.152310I$ $b = -1.23750 + 1.03368I$	$1.30088 - 13.01020I$	0
$u = -1.30755 - 0.58360I$ $a = 0.442721 - 1.152310I$ $b = -1.23750 - 1.03368I$	$1.30088 + 13.01020I$	0
$u = 1.31053 + 0.58120I$ $a = -0.474522 + 1.161580I$ $b = 1.25222 + 1.07192I$	$0.0704 + 18.7680I$	0
$u = 1.31053 - 0.58120I$ $a = -0.474522 - 1.161580I$ $b = 1.25222 - 1.07192I$	$0.0704 - 18.7680I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.30651 + 0.60119I$ $a = 0.379198 + 1.032710I$ $b = -1.08673 + 0.96493I$	$-0.48390 - 10.07670I$	0
$u = -1.30651 - 0.60119I$ $a = 0.379198 - 1.032710I$ $b = -1.08673 - 0.96493I$	$-0.48390 + 10.07670I$	0
$u = 1.31538 + 0.59120I$ $a = -0.473695 + 1.067230I$ $b = 1.13486 + 1.07933I$	$-5.18990 + 12.35070I$	0
$u = 1.31538 - 0.59120I$ $a = -0.473695 - 1.067230I$ $b = 1.13486 - 1.07933I$	$-5.18990 - 12.35070I$	0
$u = 0.031179 + 0.555696I$ $a = -1.40374 + 1.10537I$ $b = -0.452248 + 0.999562I$	$-4.10844 - 2.54131I$	$-11.25997 + 4.03773I$
$u = 0.031179 - 0.555696I$ $a = -1.40374 - 1.10537I$ $b = -0.452248 - 0.999562I$	$-4.10844 + 2.54131I$	$-11.25997 - 4.03773I$
$u = 1.23867 + 0.75093I$ $a = 0.063132 + 0.615993I$ $b = 0.658415 + 0.433559I$	$0.68663 + 3.63462I$	0
$u = 1.23867 - 0.75093I$ $a = 0.063132 - 0.615993I$ $b = 0.658415 - 0.433559I$	$0.68663 - 3.63462I$	0
$u = 1.31833 + 0.60963I$ $a = -0.417752 + 0.941411I$ $b = 0.975665 + 1.015050I$	$-2.55097 + 5.51444I$	0
$u = 1.31833 - 0.60963I$ $a = -0.417752 - 0.941411I$ $b = 0.975665 - 1.015050I$	$-2.55097 - 5.51444I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.415246+0.355327I$ $a=\ 1.69190+1.42790I$ $b=-1.120280+0.681083I$	$-1.62915+0.80906I$	$-6.88320+1.14020I$
$u=-0.415246-0.355327I$ $a=\ 1.69190-1.42790I$ $b=-1.120280-0.681083I$	$-1.62915-0.80906I$	$-6.88320-1.14020I$
$u=-1.31979+0.70178I$ $a=\ 0.163990+0.631511I$ $b=-0.622992+0.681481I$	$-1.85756-7.79878I$	0
$u=-1.31979-0.70178I$ $a=\ 0.163990-0.631511I$ $b=-0.622992-0.681481I$	$-1.85756+7.79878I$	0
$u=\ 0.107278+0.485424I$ $a=-1.41556+1.51649I$ $b=-0.071692+1.058810I$	$-0.85594+3.02250I$	$-8.20823-2.64255I$
$u=\ 0.107278-0.485424I$ $a=-1.41556-1.51649I$ $b=-0.071692-1.058810I$	$-0.85594-3.02250I$	$-8.20823+2.64255I$
$u=\ 0.066053+0.469956I$ $a=\ 0.917907+0.944664I$ $b=\ 0.362593+0.618283I$	$-0.174589+1.136490I$	$-2.51839-5.60062I$
$u=\ 0.066053-0.469956I$ $a=\ 0.917907-0.944664I$ $b=\ 0.362593-0.618283I$	$-0.174589-1.136490I$	$-2.51839+5.60062I$
$u=-0.131959+0.418621I$ $a=\ 1.39672+1.80293I$ $b=-0.127577+0.920155I$	$-0.20080+1.92027I$	$-7.46791-2.85116I$
$u=-0.131959-0.418621I$ $a=\ 1.39672-1.80293I$ $b=-0.127577-0.920155I$	$-0.20080-1.92027I$	$-7.46791+2.85116I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.54294 + 0.24665I$ $a = -0.027577 - 0.175176I$ $b = -0.650129 + 0.189128I$	$3.29602 - 1.52945I$	0
$u = 1.54294 - 0.24665I$ $a = -0.027577 + 0.175176I$ $b = -0.650129 - 0.189128I$	$3.29602 + 1.52945I$	0
$u = -1.57689 + 0.32598I$ $a = 0.114111 - 0.159654I$ $b = 0.607173 + 0.310759I$	$1.84782 + 7.17232I$	0
$u = -1.57689 - 0.32598I$ $a = 0.114111 + 0.159654I$ $b = 0.607173 - 0.310759I$	$1.84782 - 7.17232I$	0
$u = -0.372042$ $a = 2.89533$ $b = -0.701724$	-2.23985	-5.32660
$u = -1.34232 + 0.95396I$ $a = -0.046474 + 0.316903I$ $b = -0.357278 + 0.326910I$	$-3.54226 - 0.65940I$	0
$u = -1.34232 - 0.95396I$ $a = -0.046474 - 0.316903I$ $b = -0.357278 - 0.326910I$	$-3.54226 + 0.65940I$	0
$u = -1.87037$ $a = 0.0455971$ $b = 0.377541$	-2.83174	0

II. $I_2^u = \langle b,\ a+1,\ u+1 \rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -1 \\ -1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -1 \\ -1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_7, c_9	$u+1$
c_8	$u-1$
c_{10}, c_{11}, c_{12}	u

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_7, c_8, c_9	$y-1$
c_{10}, c_{11}, c_{12}	y

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.00000$ $a = -1.00000$ $b = \quad 0$	-1.64493	-6.00000

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_7	$(u+1)(u^{108}+36u^{107}+\cdots+6u+1)$
c_2, c_6	$(u+1)(u^{108}-2u^{107}+\cdots-2u+1)$
c_3	$(u+1)(u^{108}+4u^{107}+\cdots+487368u+75901)$
c_4, c_9	$(u+1)(u^{108}-2u^{107}+\cdots-3u^2+1)$
c_5	$33(u+1)(33u^{108}+126u^{107}+\cdots+888u-139)$
c_8	$33(u-1)(33u^{108}-390u^{107}+\cdots+18u-1)$
c_{10}, c_{12}	$u(u^{108}-3u^{107}+\cdots-618u+49)$
c_{11}	$u(u^{108}-3u^{107}+\cdots-384u-231)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7	$(y-1)(y^{108} + 72y^{107} + \cdots + 18y + 1)$
c_2, c_6	$(y-1)(y^{108} - 36y^{107} + \cdots - 6y + 1)$
c_3	$(y-1)(y^{108} - 48y^{107} + \cdots - 1.82916 \times 10^{11}y + 5.76096 \times 10^{9})$
c_4, c_9	$(y-1)(y^{108} - 64y^{107} + \cdots - 6y + 1)$
c_5	$1089(y-1)(1089y^{108} + 76788y^{107} + \cdots - 1572226y + 19321)$
c_8	$1089(y-1)(1089y^{108} + 74412y^{107} + \cdots - 206y + 1)$
c_{10}, c_{12}	$y(y^{108} - 69y^{107} + \cdots - 277554y + 2401)$
c_{11}	$y(y^{108} - 9y^{107} + \cdots + 893430y + 53361)$