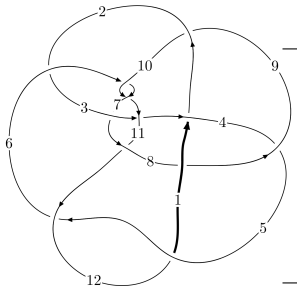
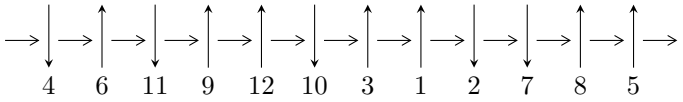
$12a_{0986}$ $(K12a_{0986})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & -6.16032 \times 10^{1762} u^{178} + 3.80838 \times 10^{1763} u^{177} + \cdots + 2.93106 \times 10^{1765} b + 4.85246 \times 10^{1767}, \\
& 8.04735 \times 10^{1767} u^{178} - 5.89284 \times 10^{1768} u^{177} + \cdots + 4.20909 \times 10^{1770} a - 4.89264 \times 10^{1773}, \\
& u^{179} - 6u^{178} + \cdots + 3332308u + 143603 \rangle \\
I_2^u = \langle & 1.58028 \times 10^{71} u^{37} - 1.25122 \times 10^{72} u^{36} + \cdots + 8.18656 \times 10^{70} b - 6.54536 \times 10^{70}, \\
& - 1.34545 \times 10^{71} u^{37} + 1.10860 \times 10^{72} u^{36} + \cdots + 8.18656 \times 10^{70} a - 3.01667 \times 10^{70},\ u^{38} - 8u^{37} + \cdots - 4u + \\
I_3^u = \langle & b - 1,\ a - 1,\ u + 1 \rangle
\end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 218 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. $I_1^u = \langle -6.16 \times 10^{1762} u^{178} + 3.81 \times 10^{1763} u^{177} + \cdots + 2.93 \times 10^{1765} b + 4.85 \times 10^{1767},\ 8.05 \times 10^{1767} u^{178} - 5.89 \times 10^{1768} u^{177} + \cdots + 4.21 \times 10^{1770} a - 4.89 \times 10^{1773},\ u^{179} - 6u^{178} + \cdots + 3332308u + 143603 \rangle$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.00191189u^{178} + 0.0140002u^{177} + \cdots + 25714.7u + 1162.40 \\ 0.00210174u^{178} - 0.0129932u^{177} + \cdots - 2880.36u - 165.553 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.00362383u^{178} + 0.0239895u^{177} + \cdots + 20442.6u + 964.794 \\ 0.00262200u^{178} - 0.0160995u^{177} + \cdots - 1693.49u - 125.000 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.000560316u^{178} - 0.00665043u^{177} + \cdots - 34425.1u - 1510.23 \\ 0.000666376u^{178} - 0.00328777u^{177} + \cdots + 7566.53u + 313.227 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.00225971u^{178} - 0.0169670u^{177} + \cdots - 37421.7u - 1666.78 \\ 0.000291099u^{178} - 0.000834068u^{177} + \cdots + 11351.3u + 491.976 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.00401363u^{178} + 0.0269934u^{177} + \cdots + 28595.0u + 1327.95 \\ 0.00210174u^{178} - 0.0129932u^{177} + \cdots - 2880.36u - 165.553 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.00329141u^{178} + 0.0203786u^{177} + \cdots + 4078.11u + 241.868 \\ -0.000134538u^{178} + 0.000468165u^{177} + \cdots - 7028.29u - 306.850 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.00230578u^{178} - 0.00747566u^{177} + \cdots + 63208.7u + 2747.75 \\ 0.0000421842u^{178} - 0.00240519u^{177} + \cdots - 20941.9u - 916.337 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.00816482u^{178} - 0.0435919u^{177} + \cdots + 65996.2u + 2760.94 \\ -0.00154549u^{178} + 0.00740747u^{177} + \cdots - 20350.2u - 859.050 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.00317833u^{178} + 0.0165419u^{177} + \cdots - 28787.5u - 1172.32 \\ -0.000889275u^{178} + 0.00398717u^{177} + \cdots - 11948.1u - 518.874 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.00403368u^{178} - 0.0412426u^{177} + \cdots - 165161.u - 7415.37$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{179} + 13u^{178} + \cdots + 4864u - 127$
c_2	$u^{179} + 2u^{178} + \cdots - 32727793u - 7268479$
c_3	$u^{179} + 2u^{178} + \cdots + 8231201u - 980023$
c_4	$u^{179} - 6u^{178} + \cdots + 3332308u + 143603$
c_5, c_{12}	$u^{179} + 4u^{178} + \cdots - 956262u - 23017$
c_6, c_{10}	$u^{179} + u^{178} + \cdots - 12744u - 496$
c_7	$u^{179} - 6u^{178} + \cdots - 683u - 29$
c_8	$u^{179} - 5u^{178} + \cdots + 1340u + 173$
c_9	$u^{179} - 14u^{178} + \cdots - 56730382524u + 17613549763$
c_{11}	$u^{179} + 4u^{178} + \cdots - 2349183u + 256397$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{179} + y^{178} + \cdots + 344852y - 16129$
c_2	$y^{179} + 66y^{178} + \cdots - 4439617469518745y - 52830786973441$
c_3	$y^{179} - 20y^{178} + \cdots + 76198792323071y - 960445080529$
c_4	$y^{179} + 16y^{178} + \cdots + 4839426567530y - 20621821609$
c_5, c_{12}	$y^{179} + 134y^{178} + \cdots - 31322218488y - 529782289$
c_6, c_{10}	$y^{179} - 127y^{178} + \cdots + 4324416y - 246016$
c_7	$y^{179} + 26y^{178} + \cdots + 119939y - 841$
c_8	$y^{179} + 5y^{178} + \cdots + 505366y - 29929$
c_9	$y^{179} - 82y^{178} + \cdots + 2.94 \times 10^{22}y - 3.10 \times 10^{20}$
c_{11}	$y^{179} + 2y^{178} + \cdots + 106182658357y - 65739421609$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.160093 + 0.972700I$ $a = 0.497860 - 0.221762I$ $b = 0.24369 + 1.57387I$	$-9.74999 + 5.34481I$	0
$u = 0.160093 - 0.972700I$ $a = 0.497860 + 0.221762I$ $b = 0.24369 - 1.57387I$	$-9.74999 - 5.34481I$	0
$u = 0.863307 + 0.475681I$ $a = 0.928468 - 0.222692I$ $b = 0.864974 + 0.099404I$	$1.89841 + 0.80237I$	0
$u = 0.863307 - 0.475681I$ $a = 0.928468 + 0.222692I$ $b = 0.864974 - 0.099404I$	$1.89841 - 0.80237I$	0
$u = 0.227170 + 0.958236I$ $a = -1.93322 + 0.31633I$ $b = -0.075295 - 1.082210I$	$-8.76330 + 0.54002I$	0
$u = 0.227170 - 0.958236I$ $a = -1.93322 - 0.31633I$ $b = -0.075295 + 1.082210I$	$-8.76330 - 0.54002I$	0
$u = 0.348586 + 0.914122I$ $a = -0.904818 - 0.130769I$ $b = -0.682093 + 0.168984I$	$-5.84833 + 2.26700I$	0
$u = 0.348586 - 0.914122I$ $a = -0.904818 + 0.130769I$ $b = -0.682093 - 0.168984I$	$-5.84833 - 2.26700I$	0
$u = 0.688741 + 0.761648I$ $a = 0.793429 + 0.812658I$ $b = -0.237171 + 0.302856I$	$0.13597 + 4.18324I$	0
$u = 0.688741 - 0.761648I$ $a = 0.793429 - 0.812658I$ $b = -0.237171 - 0.302856I$	$0.13597 - 4.18324I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.586776+0.848662I$ $a=\ 0.855948-0.230798I$ $b=\ 1.075910-0.491601I$	$-5.35007+4.67966I$	0
$u=-0.586776-0.848662I$ $a=\ 0.855948+0.230798I$ $b=\ 1.075910+0.491601I$	$-5.35007-4.67966I$	0
$u=-1.029700+0.074717I$ $a=\ 0.516386-0.085250I$ $b=\ 0.585551-0.946540I$	$-0.19117-4.10195I$	0
$u=-1.029700-0.074717I$ $a=\ 0.516386+0.085250I$ $b=\ 0.585551+0.946540I$	$-0.19117+4.10195I$	0
$u=\ 0.940780+0.190478I$ $a=\ 0.530871-0.009582I$ $b=\ 0.679166+0.453939I$	$1.47853+0.54393I$	0
$u=\ 0.940780-0.190478I$ $a=\ 0.530871+0.009582I$ $b=\ 0.679166-0.453939I$	$1.47853-0.54393I$	0
$u=\ 0.764943+0.575286I$ $a=-1.340030+0.054344I$ $b=-0.770866+0.090952I$	$1.56692+7.67371I$	0
$u=\ 0.764943-0.575286I$ $a=-1.340030-0.054344I$ $b=-0.770866-0.090952I$	$1.56692-7.67371I$	0
$u=\ 0.073797+0.951967I$ $a=\ 0.74633-1.54134I$ $b=\ 0.02008+1.47450I$	$-9.46264+6.62769I$	0
$u=\ 0.073797-0.951967I$ $a=\ 0.74633+1.54134I$ $b=\ 0.02008-1.47450I$	$-9.46264-6.62769I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.824716 + 0.644514I$ $a = -1.70775 - 0.44370I$ $b = -0.361480 - 1.272120I$	$0.43653 + 7.24900I$	0
$u = 0.824716 - 0.644514I$ $a = -1.70775 + 0.44370I$ $b = -0.361480 + 1.272120I$	$0.43653 - 7.24900I$	0
$u = 0.776001 + 0.713953I$ $a = 0.849169 + 0.087983I$ $b = 1.205560 + 0.550268I$	$0.561818 + 0.664728I$	0
$u = 0.776001 - 0.713953I$ $a = 0.849169 - 0.087983I$ $b = 1.205560 - 0.550268I$	$0.561818 - 0.664728I$	0
$u = -0.599781 + 0.715422I$ $a = 0.311755 + 0.775076I$ $b = -0.0814523 - 0.1124140I$	$-3.06266 + 0.89643I$	0
$u = -0.599781 - 0.715422I$ $a = 0.311755 - 0.775076I$ $b = -0.0814523 + 0.1124140I$	$-3.06266 - 0.89643I$	0
$u = 0.212812 + 1.054210I$ $a = -1.203940 - 0.064128I$ $b = -0.500082 - 1.157870I$	$-9.23720 + 1.61235I$	0
$u = 0.212812 - 1.054210I$ $a = -1.203940 + 0.064128I$ $b = -0.500082 + 1.157870I$	$-9.23720 - 1.61235I$	0
$u = -0.193163 + 0.900694I$ $a = 1.66089 + 0.96416I$ $b = -0.239455 - 1.137520I$	$-6.08490 - 0.22834I$	0
$u = -0.193163 - 0.900694I$ $a = 1.66089 - 0.96416I$ $b = -0.239455 + 1.137520I$	$-6.08490 + 0.22834I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.102826+0.911024I$ $a=\ 1.282050+0.116325I$ $b=\ 0.70598-1.37876I$	$-8.2321-11.6976I$	0
$u=-0.102826-0.911024I$ $a=\ 1.282050-0.116325I$ $b=\ 0.70598+1.37876I$	$-8.2321+11.6976I$	0
$u=\ 0.830316+0.695838I$ $a=\ 0.727043-0.294344I$ $b=\ 0.673614+0.444373I$	$1.50907+0.82449I$	0
$u=\ 0.830316-0.695838I$ $a=\ 0.727043+0.294344I$ $b=\ 0.673614-0.444373I$	$1.50907-0.82449I$	0
$u=\ 0.256033+0.866301I$ $a=-0.962825-0.132000I$ $b=-0.676501+1.021890I$	$-6.62253+2.55245I$	0
$u=\ 0.256033-0.866301I$ $a=-0.962825+0.132000I$ $b=-0.676501-1.021890I$	$-6.62253-2.55245I$	0
$u=\ 0.915606+0.613815I$ $a=\ 1.019860+0.042862I$ $b=\ 0.494658+1.320780I$	$-2.45085+5.31363I$	0
$u=\ 0.915606-0.613815I$ $a=\ 1.019860-0.042862I$ $b=\ 0.494658-1.320780I$	$-2.45085-5.31363I$	0
$u=-0.768277+0.808272I$ $a=\ 1.58099+0.02550I$ $b=\ 0.369712-1.036040I$	$-0.672545-0.169536I$	0
$u=-0.768277-0.808272I$ $a=\ 1.58099-0.02550I$ $b=\ 0.369712+1.036040I$	$-0.672545+0.169536I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.163103+0.853775I$ $a=-0.472117+1.142500I$ $b=\ \ 0.027335-1.135330I$	$-3.17479-1.74755I$	0
$u=-0.163103-0.853775I$ $a=-0.472117-1.142500I$ $b=\ \ 0.027335+1.135330I$	$-3.17479+1.74755I$	0
$u=\ \ 0.639061+0.587893I$ $a=\ \ 1.325060-0.451588I$ $b=\ \ 0.634750-0.485703I$	$1.03467-3.77002I$	0
$u=\ \ 0.639061-0.587893I$ $a=\ \ 1.325060+0.451588I$ $b=\ \ 0.634750+0.485703I$	$1.03467+3.77002I$	0
$u=-0.877697+0.715406I$ $a=-0.609623-0.059229I$ $b=-1.347230-0.074470I$	$0.88251-1.57486I$	0
$u=-0.877697-0.715406I$ $a=-0.609623+0.059229I$ $b=-1.347230+0.074470I$	$0.88251+1.57486I$	0
$u=-0.812606+0.805228I$ $a=\ \ 0.707262-0.850886I$ $b=-0.132813-0.364925I$	$-4.76824-9.86796I$	0
$u=-0.812606-0.805228I$ $a=\ \ 0.707262+0.850886I$ $b=-0.132813+0.364925I$	$-4.76824+9.86796I$	0
$u=\ \ 0.030914+0.850026I$ $a=-1.44184-0.41331I$ $b=-0.040538+1.166310I$	$-7.37766+3.47007I$	0
$u=\ \ 0.030914-0.850026I$ $a=-1.44184+0.41331I$ $b=-0.040538-1.166310I$	$-7.37766-3.47007I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.505194 + 0.668862I$ $a = 1.032550 - 0.146240I$ $b = 1.48308 - 0.33304I$	$-2.42701 + 0.79923I$	0
$u = 0.505194 - 0.668862I$ $a = 1.032550 + 0.146240I$ $b = 1.48308 + 0.33304I$	$-2.42701 - 0.79923I$	0
$u = 0.698233 + 0.945327I$ $a = -0.853474 + 0.250990I$ $b = -0.893587 - 0.022074I$	$0.58797 + 4.89617I$	0
$u = 0.698233 - 0.945327I$ $a = -0.853474 - 0.250990I$ $b = -0.893587 + 0.022074I$	$0.58797 - 4.89617I$	0
$u = -0.834787 + 0.828542I$ $a = 0.897864 + 0.098076I$ $b = 1.337730 - 0.113546I$	$2.36439 - 8.92822I$	0
$u = -0.834787 - 0.828542I$ $a = 0.897864 - 0.098076I$ $b = 1.337730 + 0.113546I$	$2.36439 + 8.92822I$	0
$u = 0.790379 + 0.875687I$ $a = 1.352410 + 0.052564I$ $b = 0.506007 + 1.045380I$	$2.14555 + 4.55407I$	0
$u = 0.790379 - 0.875687I$ $a = 1.352410 - 0.052564I$ $b = 0.506007 - 1.045380I$	$2.14555 - 4.55407I$	0
$u = -0.585447 + 0.573438I$ $a = -0.552705 + 0.603540I$ $b = -0.362732 - 0.270376I$	$-1.32808 - 1.47127I$	0
$u = -0.585447 - 0.573438I$ $a = -0.552705 - 0.603540I$ $b = -0.362732 + 0.270376I$	$-1.32808 + 1.47127I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.997414 + 0.657988I$ $a = -0.057148 - 0.577116I$ $b = -0.187606 + 0.345330I$	$-3.54281 + 1.91947I$	0
$u = 0.997414 - 0.657988I$ $a = -0.057148 + 0.577116I$ $b = -0.187606 - 0.345330I$	$-3.54281 - 1.91947I$	0
$u = -0.686884 + 0.985272I$ $a = -0.323542 - 0.286212I$ $b = -0.317306 - 0.660641I$	$-1.18591 - 5.40154I$	0
$u = -0.686884 - 0.985272I$ $a = -0.323542 + 0.286212I$ $b = -0.317306 + 0.660641I$	$-1.18591 + 5.40154I$	0
$u = -1.158180 + 0.349051I$ $a = 0.186684 + 0.320600I$ $b = 0.209073 + 1.061440I$	$-0.96105 + 2.77423I$	0
$u = -1.158180 - 0.349051I$ $a = 0.186684 - 0.320600I$ $b = 0.209073 - 1.061440I$	$-0.96105 - 2.77423I$	0
$u = -0.760355 + 0.951557I$ $a = -0.908322 - 0.055771I$ $b = -0.882253 - 0.098344I$	$-3.37196 - 6.50628I$	0
$u = -0.760355 - 0.951557I$ $a = -0.908322 + 0.055771I$ $b = -0.882253 + 0.098344I$	$-3.37196 + 6.50628I$	0
$u = -0.549885 + 0.554076I$ $a = 1.233420 + 0.321718I$ $b = 0.873176 + 0.431306I$	$4.12918 + 0.46038I$	0
$u = -0.549885 - 0.554076I$ $a = 1.233420 - 0.321718I$ $b = 0.873176 - 0.431306I$	$4.12918 - 0.46038I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.178864+0.752610I$ $a=-1.67611+0.14821I$ $b=-0.462338+1.173420I$	$-4.75246-1.54481I$	0
$u=-0.178864-0.752610I$ $a=-1.67611-0.14821I$ $b=-0.462338-1.173420I$	$-4.75246+1.54481I$	0
$u=0.200263+0.731281I$ $a=1.304330-0.105083I$ $b=0.65375+1.47229I$	$-2.80609+7.16976I$	0
$u=0.200263-0.731281I$ $a=1.304330+0.105083I$ $b=0.65375-1.47229I$	$-2.80609-7.16976I$	0
$u=-0.830272+0.923562I$ $a=1.102330-0.171863I$ $b=0.814467-0.884213I$	$-3.92574-8.99449I$	0
$u=-0.830272-0.923562I$ $a=1.102330+0.171863I$ $b=0.814467+0.884213I$	$-3.92574+8.99449I$	0
$u=-0.209625+0.728236I$ $a=-1.96239-0.96863I$ $b=-0.372436+1.359620I$	$-6.87153-4.30366I$	0
$u=-0.209625-0.728236I$ $a=-1.96239+0.96863I$ $b=-0.372436-1.359620I$	$-6.87153+4.30366I$	0
$u=0.833955+0.923717I$ $a=0.889138-0.119543I$ $b=1.286160+0.053699I$	$-2.6444+14.9286I$	0
$u=0.833955-0.923717I$ $a=0.889138+0.119543I$ $b=1.286160-0.053699I$	$-2.6444-14.9286I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.778610 + 0.973425I$ $a = -0.037400 + 0.233340I$ $b = -0.261633 + 0.643199I$	$1.93607 + 1.35235I$	0
$u = 0.778610 - 0.973425I$ $a = -0.037400 - 0.233340I$ $b = -0.261633 - 0.643199I$	$1.93607 - 1.35235I$	0
$u = -0.478419 + 1.159430I$ $a = -0.716340 - 0.504402I$ $b = -0.769362 + 0.163942I$	$-2.11487 - 5.21570I$	0
$u = -0.478419 - 1.159430I$ $a = -0.716340 + 0.504402I$ $b = -0.769362 - 0.163942I$	$-2.11487 + 5.21570I$	0
$u = -0.207889 + 0.713914I$ $a = 1.72989 + 1.73093I$ $b = -0.024620 - 1.340490I$	$-4.44495 - 1.81498I$	0
$u = -0.207889 - 0.713914I$ $a = 1.72989 - 1.73093I$ $b = -0.024620 + 1.340490I$	$-4.44495 + 1.81498I$	0
$u = -0.714841 + 1.033450I$ $a = 0.500873 - 0.521611I$ $b = -0.314896 - 0.564591I$	$-4.19245 + 2.74490I$	0
$u = -0.714841 - 1.033450I$ $a = 0.500873 + 0.521611I$ $b = -0.314896 + 0.564591I$	$-4.19245 - 2.74490I$	0
$u = -0.889537 + 0.918502I$ $a = 1.049510 + 0.121298I$ $b = 0.471707 - 1.329920I$	$-2.47079 - 5.72434I$	0
$u = -0.889537 - 0.918502I$ $a = 1.049510 - 0.121298I$ $b = 0.471707 + 1.329920I$	$-2.47079 + 5.72434I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.526664 + 0.464979I$ $a = -0.34088 + 1.64668I$ $b = -0.549169 - 0.227075I$	$-2.48389 + 2.59715I$	0
$u = 0.526664 - 0.464979I$ $a = -0.34088 - 1.64668I$ $b = -0.549169 + 0.227075I$	$-2.48389 - 2.59715I$	0
$u = -0.555438 + 0.402882I$ $a = -1.84210 - 0.20467I$ $b = -0.718058 - 0.085859I$	$4.17872 - 3.24163I$	0
$u = -0.555438 - 0.402882I$ $a = -1.84210 + 0.20467I$ $b = -0.718058 + 0.085859I$	$4.17872 + 3.24163I$	0
$u = 0.068096 + 0.666391I$ $a = 2.28793 + 2.33841I$ $b = -0.185761 - 1.134860I$	$-7.14233 + 11.57710I$	0
$u = 0.068096 - 0.666391I$ $a = 2.28793 - 2.33841I$ $b = -0.185761 + 1.134860I$	$-7.14233 - 11.57710I$	0
$u = -1.015180 + 0.873522I$ $a = -1.288660 + 0.207699I$ $b = -0.406918 + 1.260950I$	$-2.08717 - 12.02360I$	0
$u = -1.015180 - 0.873522I$ $a = -1.288660 - 0.207699I$ $b = -0.406918 - 1.260950I$	$-2.08717 + 12.02360I$	0
$u = 0.022859 + 0.659179I$ $a = -2.47200 + 0.40487I$ $b = -0.372992 - 1.220430I$	$-7.40547 + 0.57805I$	0
$u = 0.022859 - 0.659179I$ $a = -2.47200 - 0.40487I$ $b = -0.372992 + 1.220430I$	$-7.40547 - 0.57805I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.048055 + 0.652340I$ $a = 2.60598 - 1.76336I$ $b = -0.191187 + 1.143260I$	$-2.41113 - 6.11278I$	0
$u = 0.048055 - 0.652340I$ $a = 2.60598 + 1.76336I$ $b = -0.191187 - 1.143260I$	$-2.41113 + 6.11278I$	0
$u = -0.707221 + 1.154200I$ $a = -0.154817 - 0.618372I$ $b = -0.591930 + 0.497062I$	$1.58908 + 2.85999I$	0
$u = -0.707221 - 1.154200I$ $a = -0.154817 + 0.618372I$ $b = -0.591930 - 0.497062I$	$1.58908 - 2.85999I$	0
$u = 0.917364 + 1.013270I$ $a = -0.347413 + 0.657807I$ $b = -0.663798 - 0.433140I$	$-2.70586 - 8.47057I$	0
$u = 0.917364 - 1.013270I$ $a = -0.347413 - 0.657807I$ $b = -0.663798 + 0.433140I$	$-2.70586 + 8.47057I$	0
$u = -0.927664 + 1.004460I$ $a = 0.577050 + 0.308715I$ $b = 0.776435 - 0.996279I$	$-0.06821 - 5.05747I$	0
$u = -0.927664 - 1.004460I$ $a = 0.577050 - 0.308715I$ $b = 0.776435 + 0.996279I$	$-0.06821 + 5.05747I$	0
$u = -0.245062 + 0.579462I$ $a = -3.67087 - 0.02131I$ $b = -0.040610 + 1.052940I$	$-4.17418 - 0.33308I$	0
$u = -0.245062 - 0.579462I$ $a = -3.67087 + 0.02131I$ $b = -0.040610 - 1.052940I$	$-4.17418 + 0.33308I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.868708 + 1.063090I$ $a = -0.640306 + 0.256969I$ $b = -1.027020 - 0.195423I$	$0.36610 + 5.45734I$	0
$u = \quad 0.868708 - 1.063090I$ $a = -0.640306 - 0.256969I$ $b = -1.027020 + 0.195423I$	$0.36610 - 5.45734I$	0
$u = -0.619952 + 0.045093I$ $a = \quad 0.03036 + 1.41390I$ $b = -0.235997 - 0.092149I$	$-1.23428 - 1.94780I$	0
$u = -0.619952 - 0.045093I$ $a = \quad 0.03036 - 1.41390I$ $b = -0.235997 + 0.092149I$	$-1.23428 + 1.94780I$	0
$u = -0.151428 + 0.596501I$ $a = \quad 0.482224 - 0.229925I$ $b = \quad 0.52984 + 1.99627I$	$-7.85639 - 7.09052I$	0
$u = -0.151428 - 0.596501I$ $a = \quad 0.482224 + 0.229925I$ $b = \quad 0.52984 - 1.99627I$	$-7.85639 + 7.09052I$	0
$u = -0.594618 + 0.119364I$ $a = \quad 0.10329 + 2.87694I$ $b = -0.112042 + 1.045700I$	$-4.08515 + 0.25044I$	0
$u = -0.594618 - 0.119364I$ $a = \quad 0.10329 - 2.87694I$ $b = -0.112042 - 1.045700I$	$-4.08515 - 0.25044I$	0
$u = -0.056666 + 0.600305I$ $a = -0.895367 + 0.757269I$ $b = -0.67891 - 1.49549I$	$-2.14404 + 0.79987I$	0
$u = -0.056666 - 0.600305I$ $a = -0.895367 - 0.757269I$ $b = -0.67891 + 1.49549I$	$-2.14404 - 0.79987I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.593887 + 1.272390I$ $a = -1.231230 + 0.507892I$ $b = -0.42265 - 1.37452I$	$-6.90638 + 9.70537I$	0
$u = 0.593887 - 1.272390I$ $a = -1.231230 - 0.507892I$ $b = -0.42265 + 1.37452I$	$-6.90638 - 9.70537I$	0
$u = -0.58949 + 1.29030I$ $a = -1.155590 - 0.299227I$ $b = -0.086537 + 1.045290I$	$-7.02019 - 4.73556I$	0
$u = -0.58949 - 1.29030I$ $a = -1.155590 + 0.299227I$ $b = -0.086537 - 1.045290I$	$-7.02019 + 4.73556I$	0
$u = -0.096241 + 0.556917I$ $a = -0.18416 - 3.49270I$ $b = -0.17002 + 1.42553I$	$-7.78381 - 5.08706I$	0
$u = -0.096241 - 0.556917I$ $a = -0.18416 + 3.49270I$ $b = -0.17002 - 1.42553I$	$-7.78381 + 5.08706I$	0
$u = -0.88499 + 1.19709I$ $a = 1.044950 + 0.081648I$ $b = 0.65855 - 1.47534I$	$-6.56185 - 8.48761I$	0
$u = -0.88499 - 1.19709I$ $a = 1.044950 - 0.081648I$ $b = 0.65855 + 1.47534I$	$-6.56185 + 8.48761I$	0
$u = -0.502578 + 0.029572I$ $a = 0.587731 + 0.819387I$ $b = -0.923361 + 1.048100I$	$-3.18892 + 0.13773I$	0
$u = -0.502578 - 0.029572I$ $a = 0.587731 - 0.819387I$ $b = -0.923361 - 1.048100I$	$-3.18892 - 0.13773I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.82549+1.25389I$ $a=-1.115040-0.213766I$ $b=-0.468214+1.319910I$	$-3.57182-9.85619I$	0
$u=-0.82549-1.25389I$ $a=-1.115040+0.213766I$ $b=-0.468214-1.319910I$	$-3.57182+9.85619I$	0
$u=0.374800+0.292914I$ $a=6.13466-3.18111I$ $b=0.054068+0.996470I$	$-4.99300-0.33552I$	$-27.2414-41.7810I$
$u=0.374800-0.292914I$ $a=6.13466+3.18111I$ $b=0.054068-0.996470I$	$-4.99300+0.33552I$	$-27.2414+41.7810I$
$u=-0.77045+1.32923I$ $a=-0.893629-0.033316I$ $b=-0.548137+1.230160I$	$-8.72545-7.23788I$	0
$u=-0.77045-1.32923I$ $a=-0.893629+0.033316I$ $b=-0.548137-1.230160I$	$-8.72545+7.23788I$	0
$u=0.92726+1.28543I$ $a=1.024210-0.130374I$ $b=0.58001+1.44025I$	$-2.4722+15.4837I$	0
$u=0.92726-1.28543I$ $a=1.024210+0.130374I$ $b=0.58001-1.44025I$	$-2.4722-15.4837I$	0
$u=1.17680+1.06498I$ $a=-0.490988-0.065967I$ $b=-0.664865-1.096620I$	$-1.74065+6.08639I$	0
$u=1.17680-1.06498I$ $a=-0.490988+0.065967I$ $b=-0.664865+1.096620I$	$-1.74065-6.08639I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.310053 + 0.263275I$ $a = -0.31163 - 1.92118I$ $b = 0.133198 - 1.307840I$	$-3.42587 - 5.39201I$	$-2.05136 + 9.05405I$
$u = 0.310053 - 0.263275I$ $a = -0.31163 + 1.92118I$ $b = 0.133198 + 1.307840I$	$-3.42587 + 5.39201I$	$-2.05136 - 9.05405I$
$u = 0.32202 + 1.57783I$ $a = -0.363831 + 0.860317I$ $b = -0.119673 - 1.014670I$	$-1.93093 + 7.12112I$	0
$u = 0.32202 - 1.57783I$ $a = -0.363831 - 0.860317I$ $b = -0.119673 + 1.014670I$	$-1.93093 - 7.12112I$	0
$u = -0.077935 + 0.377163I$ $a = 0.843812 + 0.140353I$ $b = 0.16952 - 2.67977I$	$-3.36973 - 0.05585I$	$-2.6990 - 34.3862I$
$u = -0.077935 - 0.377163I$ $a = 0.843812 - 0.140353I$ $b = 0.16952 + 2.67977I$	$-3.36973 + 0.05585I$	$-2.6990 + 34.3862I$
$u = -0.92363 + 1.33176I$ $a = 1.031020 + 0.147555I$ $b = 0.57969 - 1.42037I$	$-7.2659 - 21.3644I$	0
$u = -0.92363 - 1.33176I$ $a = 1.031020 - 0.147555I$ $b = 0.57969 + 1.42037I$	$-7.2659 + 21.3644I$	0
$u = -0.77203 + 1.44418I$ $a = -0.887214 - 0.426998I$ $b = -0.52175 + 1.41477I$	$-4.62617 - 11.08030I$	0
$u = -0.77203 - 1.44418I$ $a = -0.887214 + 0.426998I$ $b = -0.52175 - 1.41477I$	$-4.62617 + 11.08030I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.87994 + 1.38732I$ $a = -0.807919 + 0.228085I$ $b = -0.59381 - 1.33204I$	$-3.02264 + 8.05656I$	0
$u = \quad 0.87994 - 1.38732I$ $a = -0.807919 - 0.228085I$ $b = -0.59381 + 1.33204I$	$-3.02264 - 8.05656I$	0
$u = \quad 0.95370 + 1.33962I$ $a = -1.018510 + 0.086896I$ $b = -0.486965 - 1.275330I$	$-7.03458 + 11.51160I$	0
$u = \quad 0.95370 - 1.33962I$ $a = -1.018510 - 0.086896I$ $b = -0.486965 + 1.275330I$	$-7.03458 - 11.51160I$	0
$u = -0.11589 + 1.66220I$ $a = -0.053249 - 0.729882I$ $b = -0.132085 + 0.983979I$	$1.25928 - 3.20214I$	0
$u = -0.11589 - 1.66220I$ $a = -0.053249 + 0.729882I$ $b = -0.132085 - 0.983979I$	$1.25928 + 3.20214I$	0
$u = -1.57651 + 0.57677I$ $a = \quad 0.047699 - 0.384593I$ $b = -0.336148 - 0.994125I$	$-4.57155 + 0.66290I$	0
$u = -1.57651 - 0.57677I$ $a = \quad 0.047699 + 0.384593I$ $b = -0.336148 + 0.994125I$	$-4.57155 - 0.66290I$	0
$u = -0.96790 + 1.37986I$ $a = \quad 0.775609 + 0.061189I$ $b = \quad 0.27393 - 1.40481I$	$-6.16921 - 5.17837I$	0
$u = -0.96790 - 1.37986I$ $a = \quad 0.775609 - 0.061189I$ $b = \quad 0.27393 + 1.40481I$	$-6.16921 + 5.17837I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.83824 + 1.47663I$ $a = 0.722373 - 0.134243I$ $b = 0.321672 + 1.368770I$	$-11.24820 - 0.45268I$	0
$u = 0.83824 - 1.47663I$ $a = 0.722373 + 0.134243I$ $b = 0.321672 - 1.368770I$	$-11.24820 + 0.45268I$	0
$u = 1.15676 + 1.25806I$ $a = -0.647712 - 0.164410I$ $b = -0.062926 - 1.039870I$	$-2.71036 + 2.84323I$	0
$u = 1.15676 - 1.25806I$ $a = -0.647712 + 0.164410I$ $b = -0.062926 + 1.039870I$	$-2.71036 - 2.84323I$	0
$u = -0.46140 + 1.73293I$ $a = -0.0633685 + 0.1068600I$ $b = -0.055244 - 1.113700I$	$-2.70384 - 1.58733I$	0
$u = -0.46140 - 1.73293I$ $a = -0.0633685 - 0.1068600I$ $b = -0.055244 + 1.113700I$	$-2.70384 + 1.58733I$	0
$u = 1.08708 + 1.48110I$ $a = 0.697954 - 0.022329I$ $b = 0.245406 + 1.338960I$	$-10.3414 + 11.5088I$	0
$u = 1.08708 - 1.48110I$ $a = 0.697954 + 0.022329I$ $b = 0.245406 - 1.338960I$	$-10.3414 - 11.5088I$	0
$u = 1.83664 + 0.43092I$ $a = -0.111631 + 0.222303I$ $b = -0.413025 + 1.029520I$	$0.03047 - 6.88807I$	0
$u = 1.83664 - 0.43092I$ $a = -0.111631 - 0.222303I$ $b = -0.413025 - 1.029520I$	$0.03047 + 6.88807I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.87599+0.42811I$ $a=-0.166649-0.224487I$ $b=-0.407132-1.038160I$	$-4.49649+12.60060I$	0
$u=-1.87599-0.42811I$ $a=-0.166649+0.224487I$ $b=-0.407132+1.038160I$	$-4.49649-12.60060I$	0
$u=-0.0586417$ $a=\ \ 4.90444$ $b=\ \ 1.35371$	2.62611	-31.0140
$u=-0.93568+1.71441I$ $a=\ \ 0.225535+0.256238I$ $b=-0.039317-0.849692I$	$-3.47794+0.87367I$	0
$u=-0.93568-1.71441I$ $a=\ \ 0.225535-0.256238I$ $b=-0.039317+0.849692I$	$-3.47794-0.87367I$	0
$u=\ \ 2.31413+1.11090I$ $a=\ \ 0.0749392-0.0682635I$ $b=-0.015021+0.889766I$	$-3.75225+2.03920I$	0
$u=\ \ 2.31413-1.11090I$ $a=\ \ 0.0749392+0.0682635I$ $b=-0.015021-0.889766I$	$-3.75225-2.03920I$	0
$u=\ \ 3.91767+0.70198I$ $a=\ \ 0.0706944+0.1039240I$ $b=\ \ 0.019704+1.027180I$	$-3.09178-2.18952I$	0
$u=\ \ 3.91767-0.70198I$ $a=\ \ 0.0706944-0.1039240I$ $b=\ \ 0.019704-1.027180I$	$-3.09178+2.18952I$	0

II.

$\boldsymbol{I_2^u = \langle 1.58\times 10^{71}u^{37}-1.25\times 10^{72}u^{36}+\cdots+8.19\times 10^{70}b-6.55\times 10^{70},\ -1.35\times 10^{71}u^{37}+1.11\times 10^{72}u^{36}+\cdots+8.19\times 10^{70}a-3.02\times 10^{70},\ u^{38}-8u^{37}+\cdots-4u+1\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1.64349u^{37} - 13.5417u^{36} + \cdots + 1.03312u + 0.368491 \\ -1.93034u^{37} + 15.2839u^{36} + \cdots - 5.32918u + 0.799526 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 3.26961u^{37} - 26.2052u^{36} + \cdots + 3.14344u - 0.0371895 \\ -2.11807u^{37} + 16.8562u^{36} + \cdots - 5.57329u + 0.454021 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 2.87101u^{37} - 24.5884u^{36} + \cdots + 27.5334u - 6.19063 \\ -0.784995u^{37} + 6.17897u^{36} + \cdots - 11.1310u + 2.89463 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 2.22850u^{37} - 20.5639u^{36} + \cdots + 27.2838u - 5.09724 \\ -0.648913u^{37} + 5.81913u^{36} + \cdots - 9.64312u + 2.55500 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 3.57382u^{37} - 28.8256u^{36} + \cdots + 6.36231u - 0.431035 \\ -1.93034u^{37} + 15.2839u^{36} + \cdots - 5.32918u + 0.799526 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -4.30151u^{37} + 33.5288u^{36} + \cdots - 21.7994u + 0.0353414 \\ 1.74650u^{37} - 13.7377u^{36} + \cdots + 19.1692u + 0.541545 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 4.99146u^{37} - 43.0794u^{36} + \cdots + 20.5050u - 2.52432 \\ -2.57492u^{37} + 21.4871u^{36} + \cdots - 4.90306u + 0.527884 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.629193u^{37} - 3.70851u^{36} + \cdots - 14.8538u + 3.11572 \\ -0.359359u^{37} + 2.54301u^{36} + \cdots + 7.29273u - 2.20513 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.305849u^{37} + 3.38368u^{36} + \cdots - 2.87194u + 0.271626 \\ 0.801193u^{37} - 7.08422u^{36} + \cdots + 4.18892u - 0.399891 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 19.9303u^{37} - 151.137u^{36} + \cdots + 248.488u - 16.0742$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{38} - 10u^{37} + \cdots + 4u + 1$
c_2	$u^{38} - u^{37} + \cdots - 5u + 1$
c_3	$u^{38} + u^{37} + \cdots - 5u + 1$
c_4	$u^{38} - 8u^{37} + \cdots - 4u + 1$
c_5	$u^{38} - 2u^{37} + \cdots + 22u + 7$
c_6	$u^{38} + u^{37} + \cdots - 56u + 16$
c_7	$u^{38} + 6u^{36} + \cdots - 11u + 1$
c_8	$u^{38} - 3u^{37} + \cdots + 2u + 1$
c_9	$u^{38} + 2u^{37} + \cdots + 24u + 1$
c_{10}	$u^{38} - u^{37} + \cdots + 56u + 16$
c_{11}	$u^{38} + 8u^{37} + \cdots + 171u + 17$
c_{12}	$u^{38} + 2u^{37} + \cdots - 22u + 7$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{38} + 4y^{37} + \cdots - 20y + 1$
c_2	$y^{38} + 29y^{37} + \cdots + 61y + 1$
c_3	$y^{38} + 3y^{37} + \cdots - 39y + 1$
c_4	$y^{38} - 22y^{37} + \cdots + 10y + 1$
c_5, c_{12}	$y^{38} + 36y^{37} + \cdots + 216y + 49$
c_6, c_{10}	$y^{38} - 25y^{37} + \cdots - 2752y + 256$
c_7	$y^{38} + 12y^{37} + \cdots + 9y + 1$
c_8	$y^{38} - 9y^{37} + \cdots + 2y + 1$
c_9	$y^{38} - 16y^{37} + \cdots - 440y + 1$
c_{11}	$y^{38} + 24y^{37} + \cdots - 1565y + 289$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.204749+0.909214I$ $a=-1.78827+0.14528I$ $b=-0.449564+1.059010I$	$-8.02956-1.85167I$	$-5.24228+5.42371I$
$u=-0.204749-0.909214I$ $a=-1.78827-0.14528I$ $b=-0.449564-1.059010I$	$-8.02956+1.85167I$	$-5.24228-5.42371I$
$u=1.028090+0.344457I$ $a=0.232436+1.085050I$ $b=0.385102+0.996492I$	$-5.49448+11.56310I$	$-2.83282-8.67252I$
$u=1.028090-0.344457I$ $a=0.232436-1.085050I$ $b=0.385102-0.996492I$	$-5.49448-11.56310I$	$-2.83282+8.67252I$
$u=-0.865563+0.663778I$ $a=-0.634167+0.144459I$ $b=-1.110570+0.197533I$	$0.30442-1.50701I$	$-2.05180+3.87131I$
$u=-0.865563-0.663778I$ $a=-0.634167-0.144459I$ $b=-1.110570-0.197533I$	$0.30442+1.50701I$	$-2.05180-3.87131I$
$u=-1.073640+0.352329I$ $a=0.459965-0.791107I$ $b=0.435813-1.094870I$	$-0.77066-6.37758I$	$0.+8.08386I$
$u=-1.073640-0.352329I$ $a=0.459965+0.791107I$ $b=0.435813+1.094870I$	$-0.77066+6.37758I$	$0.-8.08386I$
$u=0.776437$ $a=0.938636$ $b=1.14051$	2.74871	16.9200
$u=-0.695038+0.327857I$ $a=0.165897+1.123930I$ $b=0.239946-0.373538I$	$-1.53249-2.67857I$	$1.89991+8.49360I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.695038-0.327857I$ $a=\ 0.165897-1.123930I$ $b=\ 0.239946+0.373538I$	$-1.53249+2.67857I$	$1.89991-8.49360I$
$u=\ 0.458761+1.156150I$ $a=-0.636440+0.663107I$ $b=-0.283339-0.081277I$	$-0.27791+6.52604I$	$3.15646-7.77679I$
$u=\ 0.458761-1.156150I$ $a=-0.636440-0.663107I$ $b=-0.283339+0.081277I$	$-0.27791-6.52604I$	$3.15646+7.77679I$
$u=\ 1.242210+0.517718I$ $a=\ 0.165463-0.500462I$ $b=\ 0.127843-0.831350I$	$-4.12399-1.55778I$	$-5.93447+5.13589I$
$u=\ 1.242210-0.517718I$ $a=\ 0.165463+0.500462I$ $b=\ 0.127843+0.831350I$	$-4.12399+1.55778I$	$-5.93447-5.13589I$
$u=-1.052330+0.853432I$ $a=\ 0.733283-0.010774I$ $b=\ 0.600918-1.257880I$	$-1.02538-5.99163I$	$0.+7.92953I$
$u=-1.052330-0.853432I$ $a=\ 0.733283+0.010774I$ $b=\ 0.600918+1.257880I$	$-1.02538+5.99163I$	$0.-7.92953I$
$u=-0.160413+1.349180I$ $a=-0.266286-0.615270I$ $b=\ 0.135096+0.418009I$	$2.51426-2.33139I$	$9.66934+0.I$
$u=-0.160413-1.349180I$ $a=-0.266286+0.615270I$ $b=\ 0.135096-0.418009I$	$2.51426+2.33139I$	$9.66934+0.I$
$u=\ 0.171613+0.604546I$ $a=-2.50433+0.51556I$ $b=-0.208826-1.227440I$	$-4.31750+0.99046I$	$-0.76260-1.97468I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.171613 - 0.604546I$ $a = -2.50433 - 0.51556I$ $b = -0.208826 + 1.227440I$	$-4.31750 - 0.99046I$	$-0.76260 + 1.97468I$
$u = 0.055688 + 0.605899I$ $a = 0.56739 - 3.00965I$ $b = 0.21044 + 1.43895I$	$-7.86122 + 4.90605I$	$-16.6138 + 10.4274I$
$u = 0.055688 - 0.605899I$ $a = 0.56739 + 3.00965I$ $b = 0.21044 - 1.43895I$	$-7.86122 - 4.90605I$	$-16.6138 - 10.4274I$
$u = -0.221385 + 0.562329I$ $a = 0.30435 + 4.16979I$ $b = 0.068619 - 1.023190I$	$-4.85494 + 0.40632I$	$4.67568 + 4.91656I$
$u = -0.221385 - 0.562329I$ $a = 0.30435 - 4.16979I$ $b = 0.068619 + 1.023190I$	$-4.85494 - 0.40632I$	$4.67568 - 4.91656I$
$u = 0.79149 + 1.18599I$ $a = -1.127900 + 0.139070I$ $b = -0.58977 - 1.32954I$	$-5.82603 + 8.34603I$	0
$u = 0.79149 - 1.18599I$ $a = -1.127900 - 0.139070I$ $b = -0.58977 + 1.32954I$	$-5.82603 - 8.34603I$	0
$u = -0.212844 + 0.504832I$ $a = -0.251578 - 0.963383I$ $b = 0.29986 + 1.85389I$	$-7.53748 - 7.08350I$	$7.07553 + 8.62911I$
$u = -0.212844 - 0.504832I$ $a = -0.251578 + 0.963383I$ $b = 0.29986 - 1.85389I$	$-7.53748 + 7.08350I$	$7.07553 - 8.62911I$
$u = 0.87629 + 1.22990I$ $a = -0.587209 + 0.289366I$ $b = -0.821333 - 0.602971I$	$0.01154 + 6.26641I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.87629 - 1.22990I$ $a = -0.587209 - 0.289366I$ $b = -0.821333 + 0.602971I$	$0.01154 - 6.26641I$	0
$u = 0.478297$ $a = 1.10727$ $b = 1.25826$	2.76870	25.8350
$u = -0.77644 + 1.35130I$ $a = -1.029000 - 0.374282I$ $b = -0.44863 + 1.35140I$	$-5.15861 - 10.58670I$	0
$u = -0.77644 - 1.35130I$ $a = -1.029000 + 0.374282I$ $b = -0.44863 - 1.35140I$	$-5.15861 + 10.58670I$	0
$u = 0.251967 + 0.236557I$ $a = -0.825338 - 0.125899I$ $b = 1.19548 - 2.35726I$	$-3.29603 + 0.06282I$	$26.2538 + 106.0848I$
$u = 0.251967 - 0.236557I$ $a = -0.825338 + 0.125899I$ $b = 1.19548 + 2.35726I$	$-3.29603 - 0.06282I$	$26.2538 - 106.0848I$
$u = 3.75891 + 0.47701I$ $a = -0.0012274 - 0.1379670I$ $b = 0.013523 - 1.031030I$	$-3.05533 + 2.14926I$	0
$u = 3.75891 - 0.47701I$ $a = -0.0012274 + 0.1379670I$ $b = 0.013523 + 1.031030I$	$-3.05533 - 2.14926I$	0

III. $I_3^u = \langle b-1,\ a-1,\ u+1 \rangle$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 2 \\ -1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -1 \\ 1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 3 \\ -1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	u
c_2, c_3	$u-2$
c_4, c_8, c_9 c_{11}	$u+1$
c_5, c_6, c_7 c_{10}, c_{12}	$u-1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	y
c_2, c_3	$y-4$
c_4, c_5, c_6 c_7, c_8, c_9 c_{10}, c_{11}, c_{12}	$y-1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.00000$ $a = \quad 1.00000$ $b = \quad 1.00000$	1.64493	6.00000

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$u(u^{38}-10u^{37}+\cdots+4u+1)(u^{179}+13u^{178}+\cdots+4864u-127)$
c_2	$(u-2)(u^{38}-u^{37}+\cdots-5u+1)$ $\cdot(u^{179}+2u^{178}+\cdots-32727793u-7268479)$
c_3	$(u-2)(u^{38}+u^{37}+\cdots-5u+1)$ $\cdot(u^{179}+2u^{178}+\cdots+8231201u-980023)$
c_4	$(u+1)(u^{38}-8u^{37}+\cdots-4u+1)$ $\cdot(u^{179}-6u^{178}+\cdots+3332308u+143603)$
c_5	$(u-1)(u^{38}-2u^{37}+\cdots+22u+7)$ $\cdot(u^{179}+4u^{178}+\cdots-956262u-23017)$
c_6	$(u-1)(u^{38}+u^{37}+\cdots-56u+16)(u^{179}+u^{178}+\cdots-12744u-496)$
c_7	$(u-1)(u^{38}+6u^{36}+\cdots-11u+1)(u^{179}-6u^{178}+\cdots-683u-29)$
c_8	$(u+1)(u^{38}-3u^{37}+\cdots+2u+1)(u^{179}-5u^{178}+\cdots+1340u+173)$
c_9	$(u+1)(u^{38}+2u^{37}+\cdots+24u+1)$ $\cdot(u^{179}-14u^{178}+\cdots-56730382524u+17613549763)$
c_{10}	$(u-1)(u^{38}-u^{37}+\cdots+56u+16)(u^{179}+u^{178}+\cdots-12744u-496)$
c_{11}	$(u+1)(u^{38}+8u^{37}+\cdots+171u+17)$ $\cdot(u^{179}+4u^{178}+\cdots-2349183u+256397)$
c_{12}	$(u-1)(u^{38}+2u^{37}+\cdots-22u+7)$ $\cdot(u^{179}+4u^{178}+\cdots-956262u-23017)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$y(y^{38}+4y^{37}+\cdots-20y+1)(y^{179}+y^{178}+\cdots+344852y-16129)$
c_2	$(y-4)(y^{38}+29y^{37}+\cdots+61y+1)$ $\cdot(y^{179}+66y^{178}+\cdots-4439617469518745y-52830786973441)$
c_3	$(y-4)(y^{38}+3y^{37}+\cdots-39y+1)$ $\cdot(y^{179}-20y^{178}+\cdots+76198792323071y-960445080529)$
c_4	$(y-1)(y^{38}-22y^{37}+\cdots+10y+1)$ $\cdot(y^{179}+16y^{178}+\cdots+4839426567530y-20621821609)$
c_5, c_{12}	$(y-1)(y^{38}+36y^{37}+\cdots+216y+49)$ $\cdot(y^{179}+134y^{178}+\cdots-31322218488y-529782289)$
c_6, c_{10}	$(y-1)(y^{38}-25y^{37}+\cdots-2752y+256)$ $\cdot(y^{179}-127y^{178}+\cdots+4324416y-246016)$
c_7	$(y-1)(y^{38}+12y^{37}+\cdots+9y+1)$ $\cdot(y^{179}+26y^{178}+\cdots+119939y-841)$
c_8	$(y-1)(y^{38}-9y^{37}+\cdots+2y+1)$ $\cdot(y^{179}+5y^{178}+\cdots+505366y-29929)$
c_9	$(y-1)(y^{38}-16y^{37}+\cdots-440y+1)$ $\cdot(y^{179}-82y^{178}+\cdots+2.94\times10^{22}y-3.10\times10^{20})$
c_{11}	$(y-1)(y^{38}+24y^{37}+\cdots-1565y+289)$ $\cdot(y^{179}+2y^{178}+\cdots+106182658357y-65739421609)$