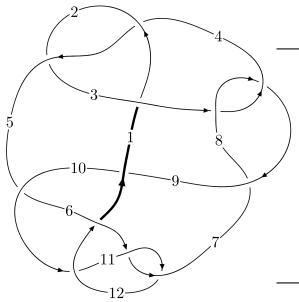
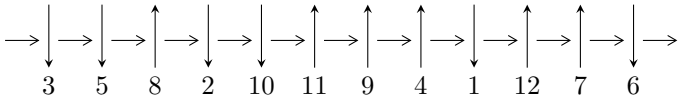
$12a_{0099}$ $(K12a_{0099})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$$\underset{c_{11}}{7,12} \to \underset{c_{6}}{11} \to \underset{c_{12}}{6} \to \underset{c_{1}}{1,3} \to \underset{c_{10}}{2} \to \underset{c_{5}}{10} \to \underset{c_{4}}{5} \to \underset{c_{9}}{4} \to \underset{c_{7}}{9} \to 8 \longrightarrow\!\!\!\!\rightarrow c_2, c_3, c_8$$

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

$I_1^u = \langle u^{113} + u^{112} + \cdots + b + u,\ -u^{113} - u^{112} + \cdots + a + u,\ u^{114} + 2u^{113} + \cdots + 3u + 1 \rangle$
$I_2^u = \langle u^5 + u^4 - u^3 - u^2 + b,\ a,\ u^6 + u^5 - u^4 - 2u^3 + u + 1 \rangle$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 120 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.

$\boldsymbol{I_1^u = \langle u^{113}+u^{112}+\cdots+b+u,\ -u^{113}-u^{112}+\cdots+a+u,\ u^{114}+2u^{113}+\cdots+3u+1\rangle}$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u \\ -u^3+u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^4-u^2+1 \\ u^6-2u^4+u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^{113}+u^{112}+\cdots+2u^3-u \\ -u^{113}-u^{112}+\cdots-2u^2-u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u^{59}+14u^{57}+\cdots-2u^2-2u \\ -u^{112}-u^{111}+\cdots-u^2-u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u^2+1 \\ u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^7+2u^5-2u^3 \\ u^7-u^5+u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u^{113}-u^{112}+\cdots-3u-1 \\ u^{113}-u^{112}+\cdots+2u^5+u^3 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u^{12}-3u^{10}+5u^8-4u^6+2u^4-u^2+1 \\ u^{14}-4u^{12}+7u^{10}-6u^8+2u^6+u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u^{25}-6u^{23}+\cdots-2u^3+u \\ u^{27}-7u^{25}+\cdots+u^3+u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 12u^{113}+14u^{112}+\cdots+20u+10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{114}+61u^{113}+\cdots+8u+1$
c_2, c_4	$u^{114}-7u^{113}+\cdots-8u+1$
c_3, c_8	$u^{114}+u^{113}+\cdots-64u+64$
c_5	$u^{114}+2u^{113}+\cdots-60045u+5113$
c_6, c_{11}	$u^{114}-2u^{113}+\cdots-3u+1$
c_7	$u^{114}-39u^{113}+\cdots-114688u+4096$
c_9	$u^{114}-14u^{113}+\cdots-4339u+349$
c_{10}	$u^{114}-54u^{113}+\cdots+u+1$
c_{12}	$u^{114}-6u^{113}+\cdots-13547u+1585$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{114} - 9y^{113} + \cdots - 16y + 1$
c_2, c_4	$y^{114} - 61y^{113} + \cdots - 8y + 1$
c_3, c_8	$y^{114} - 39y^{113} + \cdots - 114688y + 4096$
c_5	$y^{114} - 30y^{113} + \cdots - 2610115671y + 26142769$
c_6, c_{11}	$y^{114} - 54y^{113} + \cdots + y + 1$
c_7	$y^{114} + 61y^{113} + \cdots - 486539264y + 16777216$
c_9	$y^{114} + 6y^{113} + \cdots + 2982089y + 121801$
c_{10}	$y^{114} + 14y^{113} + \cdots + 9y + 1$
c_{12}	$y^{114} + 26y^{113} + \cdots + 126216321y + 2512225$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.802895+0.478978I$ $a=\ \ 0.648034+0.661607I$ $b=\ \ 1.081410-0.794048I$	$1.73492+0.06692I$	0
$u=-0.802895-0.478978I$ $a=\ \ 0.648034-0.661607I$ $b=\ \ 1.081410+0.794048I$	$1.73492-0.06692I$	0
$u=-0.621442+0.675702I$ $a=-2.36173-0.66170I$ $b=\ \ 0.38621+2.96578I$	$-4.92367-10.31030I$	0
$u=-0.621442-0.675702I$ $a=-2.36173+0.66170I$ $b=\ \ 0.38621-2.96578I$	$-4.92367+10.31030I$	0
$u=-1.075240+0.161250I$ $a=\ \ 0.221621-0.332650I$ $b=\ \ 0.442594+1.153370I$	$-0.60639-3.57403I$	0
$u=-1.075240-0.161250I$ $a=\ \ 0.221621+0.332650I$ $b=\ \ 0.442594-1.153370I$	$-0.60639+3.57403I$	0
$u=-1.071530+0.244885I$ $a=\ \ 1.110960-0.154532I$ $b=-0.631824-0.105891I$	$2.19637-0.24343I$	0
$u=-1.071530-0.244885I$ $a=\ \ 1.110960+0.154532I$ $b=-0.631824+0.105891I$	$2.19637+0.24343I$	0
$u=-0.886335+0.160699I$ $a=\ \ 0.590127+0.021652I$ $b=\ \ 0.224427-0.276342I$	$1.57240-0.20684I$	0
$u=-0.886335-0.160699I$ $a=\ \ 0.590127-0.021652I$ $b=\ \ 0.224427+0.276342I$	$1.57240+0.20684I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.615559+0.654054I$ $a=\ \ 1.149110+0.493027I$ $b=\ \ 0.323910-1.111660I$	$-1.96215-5.30707I$	0
$u=-0.615559-0.654054I$ $a=\ \ 1.149110-0.493027I$ $b=\ \ 0.323910+1.111660I$	$-1.96215+5.30707I$	0
$u=\ \ 0.555986+0.695044I$ $a=-0.550268-0.848925I$ $b=\ \ 0.910033+0.620226I$	$-6.14855-3.85204I$	0
$u=\ \ 0.555986-0.695044I$ $a=-0.550268+0.848925I$ $b=\ \ 0.910033-0.620226I$	$-6.14855+3.85204I$	0
$u=-0.953795+0.568317I$ $a=-0.282187-0.766041I$ $b=-0.60170+1.43220I$	$-0.966330+0.533951I$	0
$u=-0.953795-0.568317I$ $a=-0.282187+0.766041I$ $b=-0.60170-1.43220I$	$-0.966330-0.533951I$	0
$u=\ \ 0.595625+0.658860I$ $a=-2.67140+0.35318I$ $b=\ \ 0.69157-3.12827I$	$-6.05660+4.18679I$	0
$u=\ \ 0.595625-0.658860I$ $a=-2.67140-0.35318I$ $b=\ \ 0.69157+3.12827I$	$-6.05660-4.18679I$	0
$u=\ \ 1.095250+0.218908I$ $a=\ \ 0.058489+0.349819I$ $b=\ \ 0.63782-1.28155I$	$-0.723969-1.165160I$	0
$u=\ \ 1.095250-0.218908I$ $a=\ \ 0.058489-0.349819I$ $b=\ \ 0.63782+1.28155I$	$-0.723969+1.165160I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.689875+0.550108I$ $a=-1.176930+0.040814I$ $b=\ \ 0.58857+1.87664I$	$1.38535-4.29767I$	0
$u=-0.689875-0.550108I$ $a=-1.176930-0.040814I$ $b=\ \ 0.58857-1.87664I$	$1.38535+4.29767I$	0
$u=-0.951843+0.590636I$ $a=\ \ 0.69211+1.66566I$ $b=\ \ 2.25251-2.22982I$	$-3.94828+5.40705I$	0
$u=-0.951843-0.590636I$ $a=\ \ 0.69211-1.66566I$ $b=\ \ 2.25251+2.22982I$	$-3.94828-5.40705I$	0
$u=-0.579857+0.659260I$ $a=-0.729257+0.753579I$ $b=\ \ 0.921755-0.547684I$	$-6.31930-1.45178I$	0
$u=-0.579857-0.659260I$ $a=-0.729257-0.753579I$ $b=\ \ 0.921755+0.547684I$	$-6.31930+1.45178I$	0
$u=-1.078320+0.313731I$ $a=-0.002798-1.411830I$ $b=-0.029617+0.558469I$	$2.74778-0.59864I$	0
$u=-1.078320-0.313731I$ $a=-0.002798+1.411830I$ $b=-0.029617-0.558469I$	$2.74778+0.59864I$	0
$u=\ \ 1.068360+0.356754I$ $a=-0.350823+0.046731I$ $b=\ \ 1.38032-1.28074I$	$0.59192+1.98551I$	0
$u=\ \ 1.068360-0.356754I$ $a=-0.350823-0.046731I$ $b=\ \ 1.38032+1.28074I$	$0.59192-1.98551I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.972416 + 0.571723I$ $a = 0.43804 - 1.84169I$ $b = 2.88407 + 2.12586I$	$-4.94611 + 0.60813I$	0
$u = 0.972416 - 0.571723I$ $a = 0.43804 + 1.84169I$ $b = 2.88407 - 2.12586I$	$-4.94611 - 0.60813I$	0
$u = -1.110340 + 0.219144I$ $a = -1.90855 - 1.39379I$ $b = 1.207020 + 0.431034I$	$-0.29000 + 3.83040I$	0
$u = -1.110340 - 0.219144I$ $a = -1.90855 + 1.39379I$ $b = 1.207020 - 0.431034I$	$-0.29000 - 3.83040I$	0
$u = -0.984881 + 0.571424I$ $a = -0.687429 + 0.727612I$ $b = 0.329495 + 0.273234I$	$-5.12521 - 3.34234I$	0
$u = -0.984881 - 0.571424I$ $a = -0.687429 - 0.727612I$ $b = 0.329495 - 0.273234I$	$-5.12521 + 3.34234I$	0
$u = 0.398789 + 0.754071I$ $a = 0.675107 + 0.339066I$ $b = 0.217889 + 0.456806I$	$-5.35149 + 1.39827I$	$-5.37324 - 3.61880I$
$u = 0.398789 - 0.754071I$ $a = 0.675107 - 0.339066I$ $b = 0.217889 - 0.456806I$	$-5.35149 - 1.39827I$	$-5.37324 + 3.61880I$
$u = 0.551314 + 0.650772I$ $a = 1.102810 - 0.442735I$ $b = 0.294268 + 1.016610I$	$-2.99674 + 0.08626I$	$-3.37469 + 0.I$
$u = 0.551314 - 0.650772I$ $a = 1.102810 + 0.442735I$ $b = 0.294268 - 1.016610I$	$-2.99674 - 0.08626I$	$-3.37469 + 0.I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.125210 + 0.224930I$ $a = 1.171490 - 0.126598I$ $b = -0.781136 + 0.388903I$	$3.98132 - 4.81965I$	0
$u = 1.125210 - 0.224930I$ $a = 1.171490 + 0.126598I$ $b = -0.781136 - 0.388903I$	$3.98132 + 4.81965I$	0
$u = -0.350318 + 0.776123I$ $a = 0.08094 - 3.05542I$ $b = -2.44593 + 0.87546I$	$-3.53427 + 12.67090I$	$-3.32296 - 8.10951I$
$u = -0.350318 - 0.776123I$ $a = 0.08094 + 3.05542I$ $b = -2.44593 - 0.87546I$	$-3.53427 - 12.67090I$	$-3.32296 + 8.10951I$
$u = 1.003680 + 0.565753I$ $a = -0.193038 + 0.786711I$ $b = -0.79242 - 1.38566I$	$-1.66402 + 4.66671I$	0
$u = 1.003680 - 0.565753I$ $a = -0.193038 - 0.786711I$ $b = -0.79242 + 1.38566I$	$-1.66402 - 4.66671I$	0
$u = 1.133970 + 0.211582I$ $a = -1.84896 + 1.08134I$ $b = 1.203520 - 0.245182I$	$1.17402 - 9.99443I$	0
$u = 1.133970 - 0.211582I$ $a = -1.84896 - 1.08134I$ $b = 1.203520 + 0.245182I$	$1.17402 + 9.99443I$	0
$u = -1.096350 + 0.368893I$ $a = 1.66997 + 0.65816I$ $b = -1.259970 - 0.207309I$	$1.20941 - 4.25449I$	0
$u = -1.096350 - 0.368893I$ $a = 1.66997 - 0.65816I$ $b = -1.259970 + 0.207309I$	$1.20941 + 4.25449I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.344591+0.763294I$ $a=0.50736+1.70919I$ $b=0.822018-1.012960I$	$-0.61002+7.49344I$	$0.-5.08922I$
$u=-0.344591-0.763294I$ $a=0.50736-1.70919I$ $b=0.822018+1.012960I$	$-0.61002-7.49344I$	$0.+5.08922I$
$u=0.355740+0.756327I$ $a=0.45882+3.35198I$ $b=-2.82264-0.66453I$	$-4.86402-6.39230I$	$-4.93163+4.52879I$
$u=0.355740-0.756327I$ $a=0.45882-3.35198I$ $b=-2.82264+0.66453I$	$-4.86402+6.39230I$	$-4.93163-4.52879I$
$u=1.129870+0.281054I$ $a=-0.98753+1.20581I$ $b=0.613503-0.265856I$	$7.30319-2.72734I$	0
$u=1.129870-0.281054I$ $a=-0.98753-1.20581I$ $b=0.613503+0.265856I$	$7.30319+2.72734I$	0
$u=1.005600+0.592425I$ $a=-0.758335-0.529644I$ $b=0.391220-0.513005I$	$-4.82071+8.81017I$	0
$u=1.005600-0.592425I$ $a=-0.758335+0.529644I$ $b=0.391220+0.513005I$	$-4.82071-8.81017I$	0
$u=0.454687+0.696441I$ $a=0.293722-0.478216I$ $b=0.574073+0.723221I$	$-2.70846-1.10061I$	$1.79985+1.69816I$
$u=0.454687-0.696441I$ $a=0.293722+0.478216I$ $b=0.574073-0.723221I$	$-2.70846+1.10061I$	$1.79985-1.69816I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.362970+0.748096I$ $a=\ 0.574247-0.532042I$ $b=\ 0.246848-0.337640I$	$-5.25184+3.63750I$	$-5.10704-3.62611I$
$u=-0.362970-0.748096I$ $a=\ 0.574247+0.532042I$ $b=\ 0.246848+0.337640I$	$-5.25184-3.63750I$	$-5.10704+3.62611I$
$u=\ 1.128000+0.306570I$ $a=\ 1.52405-0.17746I$ $b=-1.121760+0.190253I$	$7.58019+2.42692I$	0
$u=\ 1.128000-0.306570I$ $a=\ 1.52405+0.17746I$ $b=-1.121760-0.190253I$	$7.58019-2.42692I$	0
$u=\ 1.120950+0.362820I$ $a=-0.265496+0.759296I$ $b=-0.0971877+0.0095791I$	$5.45218+4.81121I$	0
$u=\ 1.120950-0.362820I$ $a=-0.265496-0.759296I$ $b=-0.0971877-0.0095791I$	$5.45218-4.81121I$	0
$u=\ 0.367330+0.726409I$ $a=\ 0.65012-1.54514I$ $b=\ 0.801978+1.047490I$	$-2.12917-2.13709I$	$-2.06723+0.57279I$
$u=\ 0.367330-0.726409I$ $a=\ 0.65012+1.54514I$ $b=\ 0.801978-1.047490I$	$-2.12917+2.13709I$	$-2.06723-0.57279I$
$u=\ 1.083910+0.500725I$ $a=-1.58095-0.11969I$ $b=\ 2.63236-2.83333I$	$0.35657+2.97809I$	0
$u=\ 1.083910-0.500725I$ $a=-1.58095+0.11969I$ $b=\ 2.63236+2.83333I$	$0.35657-2.97809I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.131430 + 0.381437I$ $a = 1.43868 - 0.48924I$ $b = -1.246310 + 0.163466I$	$3.04654 + 9.86154I$	0
$u = 1.131430 - 0.381437I$ $a = 1.43868 + 0.48924I$ $b = -1.246310 - 0.163466I$	$3.04654 - 9.86154I$	0
$u = -1.083400 + 0.524828I$ $a = 0.321930 + 0.284450I$ $b = -0.732120 + 0.450506I$	$-0.59072 - 5.01689I$	0
$u = -1.083400 - 0.524828I$ $a = 0.321930 - 0.284450I$ $b = -0.732120 - 0.450506I$	$-0.59072 + 5.01689I$	0
$u = 1.065770 + 0.574128I$ $a = -0.350867 + 0.162190I$ $b = -0.325909 - 1.146450I$	$-0.91046 + 5.99898I$	0
$u = 1.065770 - 0.574128I$ $a = -0.350867 - 0.162190I$ $b = -0.325909 + 1.146450I$	$-0.91046 - 5.99898I$	0
$u = -1.120160 + 0.466519I$ $a = -1.083030 - 0.174179I$ $b = 1.81133 + 2.21947I$	$2.47594 + 2.10647I$	0
$u = -1.120160 - 0.466519I$ $a = -1.083030 + 0.174179I$ $b = 1.81133 - 2.21947I$	$2.47594 - 2.10647I$	0
$u = -1.112160 + 0.490659I$ $a = 0.330739 - 0.672558I$ $b = -1.61305 - 0.21868I$	$4.59732 - 2.80846I$	0
$u = -1.112160 - 0.490659I$ $a = 0.330739 + 0.672558I$ $b = -1.61305 + 0.21868I$	$4.59732 + 2.80846I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.287071+0.729040I$ $a=\ \ 0.92347-1.89592I$ $b=-1.82438-0.15813I$	$3.09127+5.67737I$	$2.39216-6.13027I$
$u=-0.287071-0.729040I$ $a=\ \ 0.92347+1.89592I$ $b=-1.82438+0.15813I$	$3.09127-5.67737I$	$2.39216+6.13027I$
$u=\ \ 1.100550+0.534307I$ $a=\ \ 0.70949+1.44621I$ $b=-3.54581-0.41915I$	$1.23499+6.66667I$	0
$u=\ \ 1.100550-0.534307I$ $a=\ \ 0.70949-1.44621I$ $b=-3.54581+0.41915I$	$1.23499-6.66667I$	0
$u=\ \ 1.106770+0.565812I$ $a=-1.138090+0.576922I$ $b=\ \ 0.45698-2.42716I$	$0.03653+7.06812I$	0
$u=\ \ 1.106770-0.565812I$ $a=-1.138090-0.576922I$ $b=\ \ 0.45698+2.42716I$	$0.03653-7.06812I$	0
$u=-1.124910+0.530888I$ $a=-1.35614-0.48373I$ $b=\ \ 1.24665+2.77559I$	$6.06724-5.32291I$	0
$u=-1.124910-0.530888I$ $a=-1.35614+0.48373I$ $b=\ \ 1.24665-2.77559I$	$6.06724+5.32291I$	0
$u=\ \ 1.101210+0.583983I$ $a=\ \ 0.287855+0.382193I$ $b=-0.987534-1.005520I$	$-3.28003+3.67128I$	0
$u=\ \ 1.101210-0.583983I$ $a=\ \ 0.287855-0.382193I$ $b=-0.987534+1.005520I$	$-3.28003-3.67128I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.113080+0.572032I$ $a=\ \ 0.409485-0.276988I$ $b=-1.038680+0.866746I$	$-3.04837-8.64260I$	0
$u=-1.113080-0.572032I$ $a=\ \ 0.409485+0.276988I$ $b=-1.038680-0.866746I$	$-3.04837+8.64260I$	0
$u=-1.127510+0.545345I$ $a=\ \ 1.35109-0.60924I$ $b=-3.12800-1.78113I$	$5.52623-10.50810I$	0
$u=-1.127510-0.545345I$ $a=\ \ 1.35109+0.60924I$ $b=-3.12800+1.78113I$	$5.52623+10.50810I$	0
$u=-0.255630+0.700510I$ $a=\ \ 0.66059+2.00188I$ $b=\ \ 0.928667-0.890697I$	$3.58451+0.63311I$	$3.90774+0.20235I$
$u=-0.255630-0.700510I$ $a=\ \ 0.66059-2.00188I$ $b=\ \ 0.928667+0.890697I$	$3.58451-0.63311I$	$3.90774-0.20235I$
$u=\ \ 1.117670+0.572842I$ $a=\ \ 2.39020+0.19166I$ $b=-3.74786+3.86765I$	$-2.62401+11.41900I$	0
$u=\ \ 1.117670-0.572842I$ $a=\ \ 2.39020-0.19166I$ $b=-3.74786-3.86765I$	$-2.62401-11.41900I$	0
$u=-1.123200+0.571908I$ $a=-1.218990-0.485290I$ $b=\ \ 0.78507+2.29582I$	$1.67983-12.53120I$	0
$u=-1.123200-0.571908I$ $a=-1.218990+0.485290I$ $b=\ \ 0.78507-2.29582I$	$1.67983+12.53120I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.125270+0.577644I$ $a=\ \ 2.16421+0.09260I$ $b=-3.04949-3.82760I$	$-1.2476-17.7637I$	0
$u=-1.125270-0.577644I$ $a=\ \ 2.16421-0.09260I$ $b=-3.04949+3.82760I$	$-1.2476+17.7637I$	0
$u=\ \ 0.318716+0.645599I$ $a=\ \ 2.15930+0.86166I$ $b=-1.27930+1.37397I$	$-0.99213-2.05244I$	$-1.42867+4.32429I$
$u=\ \ 0.318716-0.645599I$ $a=\ \ 2.15930-0.86166I$ $b=-1.27930-1.37397I$	$-0.99213+2.05244I$	$-1.42867-4.32429I$
$u=-0.371248+0.579272I$ $a=-0.468365-0.530701I$ $b=\ \ 0.674075-0.274514I$	$-2.64408+0.56153I$	$0.57264+1.51030I$
$u=-0.371248-0.579272I$ $a=-0.468365+0.530701I$ $b=\ \ 0.674075+0.274514I$	$-2.64408-0.56153I$	$0.57264-1.51030I$
$u=-0.085626+0.660140I$ $a=\ \ 0.42627+2.05389I$ $b=\ \ 0.787350-0.512326I$	$-0.37884-6.25642I$	$-0.31749+5.34510I$
$u=-0.085626-0.660140I$ $a=\ \ 0.42627-2.05389I$ $b=\ \ 0.787350+0.512326I$	$-0.37884+6.25642I$	$-0.31749-5.34510I$
$u=-0.141705+0.628686I$ $a=\ \ 0.763417-0.441676I$ $b=-0.799689-0.229027I$	$1.97525-1.44614I$	$3.45027+1.23411I$
$u=-0.141705-0.628686I$ $a=\ \ 0.763417+0.441676I$ $b=-0.799689+0.229027I$	$1.97525+1.44614I$	$3.45027-1.23411I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.469682 + 0.440328I$ $a = -0.27281 - 1.87269I$ $b = 1.68197 - 0.69139I$	$-1.66871 + 1.06570I$	$-4.19233 - 3.72073I$
$u = 0.469682 - 0.440328I$ $a = -0.27281 + 1.87269I$ $b = 1.68197 + 0.69139I$	$-1.66871 - 1.06570I$	$-4.19233 + 3.72073I$
$u = 0.088644 + 0.519773I$ $a = 0.29013 - 2.32275I$ $b = 0.970827 + 0.307157I$	$-1.94299 + 1.02992I$	$-2.91322 - 0.80496I$
$u = 0.088644 - 0.519773I$ $a = 0.29013 + 2.32275I$ $b = 0.970827 - 0.307157I$	$-1.94299 - 1.02992I$	$-2.91322 + 0.80496I$

II. $I_2^u = \langle u^5 + u^4 - u^3 - u^2 + b,\ a,\ u^6 + u^5 - u^4 - 2u^3 + u + 1 \rangle$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^4 - u^2 + 1 \\ -u^5 - u^4 + 2u^3 + u^2 - u - 1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0 \\ -u^5 - u^4 + u^3 + u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u^4 - u^2 + 1 \\ -2u^5 - 2u^4 + 3u^3 + 2u^2 - u - 1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u^2 + 1 \\ u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^4 + u^2 - 1 \\ u^5 + u^4 - 2u^3 - u^2 + u + 1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0 \\ -u^5 - u^4 + u^3 + u^2 \end{pmatrix}$$

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

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4u^4 + 5u^2 + 5u - 7$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2	$(u-1)^6$
c_3, c_7, c_8	u^6
c_4	$(u+1)^6$
c_5, c_9, c_{11}	$u^6+u^5-u^4-2u^3+u+1$
c_6	$u^6-u^5-u^4+2u^3-u+1$
c_{10}, c_{12}	$u^6+3u^5+5u^4+4u^3+2u^2+u+1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4	$(y-1)^6$
c_3, c_7, c_8	y^6
c_5, c_6, c_9 c_{11}	$y^6 - 3y^5 + 5y^4 - 4y^3 + 2y^2 - y + 1$
c_{10}, c_{12}	$y^6 + y^5 + 5y^4 + 6y^2 + 3y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.002190 + 0.295542I$ $a = 0$ $b = 1.000940 - 0.863088I$	$0.245672 + 0.924305I$	$0.635956 + 0.093695I$
$u = 1.002190 - 0.295542I$ $a = 0$ $b = 1.000940 + 0.863088I$	$0.245672 - 0.924305I$	$0.635956 - 0.093695I$
$u = -0.428243 + 0.664531I$ $a = 0$ $b = 0.573013 - 0.494098I$	$-3.53554 + 0.92430I$	$-9.40317 - 0.69886I$
$u = -0.428243 - 0.664531I$ $a = 0$ $b = 0.573013 + 0.494098I$	$-3.53554 - 0.92430I$	$-9.40317 + 0.69886I$
$u = -1.073950 + 0.558752I$ $a = 0$ $b = -0.573950 + 0.818891I$	$-1.64493 - 5.69302I$	$-5.23279 + 4.86918I$
$u = -1.073950 - 0.558752I$ $a = 0$ $b = -0.573950 - 0.818891I$	$-1.64493 + 5.69302I$	$-5.23279 - 4.86918I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^6)(u^{114}+61u^{113}+\cdots+8u+1)$
c_2	$((u-1)^6)(u^{114}-7u^{113}+\cdots-8u+1)$
c_3, c_8	$u^6(u^{114}+u^{113}+\cdots-64u+64)$
c_4	$((u+1)^6)(u^{114}-7u^{113}+\cdots-8u+1)$
c_5	$(u^6+u^5-u^4-2u^3+u+1)(u^{114}+2u^{113}+\cdots-60045u+5113)$
c_6	$(u^6-u^5-u^4+2u^3-u+1)(u^{114}-2u^{113}+\cdots-3u+1)$
c_7	$u^6(u^{114}-39u^{113}+\cdots-114688u+4096)$
c_9	$(u^6+u^5-u^4-2u^3+u+1)(u^{114}-14u^{113}+\cdots-4339u+349)$
c_{10}	$(u^6+3u^5+5u^4+4u^3+2u^2+u+1)(u^{114}-54u^{113}+\cdots+u+1)$
c_{11}	$(u^6+u^5-u^4-2u^3+u+1)(u^{114}-2u^{113}+\cdots-3u+1)$
c_{12}	$(u^6+3u^5+5u^4+4u^3+2u^2+u+1)$ $\cdot(u^{114}-6u^{113}+\cdots-13547u+1585)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^6)(y^{114}-9y^{113}+\cdots-16y+1)$
c_2, c_4	$((y-1)^6)(y^{114}-61y^{113}+\cdots-8y+1)$
c_3, c_8	$y^6(y^{114}-39y^{113}+\cdots-114688y+4096)$
c_5	$(y^6-3y^5+5y^4-4y^3+2y^2-y+1)$ $\cdot(y^{114}-30y^{113}+\cdots-2610115671y+26142769)$
c_6, c_{11}	$(y^6-3y^5+5y^4-4y^3+2y^2-y+1)(y^{114}-54y^{113}+\cdots+y+1)$
c_7	$y^6(y^{114}+61y^{113}+\cdots-4.86539\times10^8y+1.67772\times10^7)$
c_9	$(y^6-3y^5+5y^4-4y^3+2y^2-y+1)$ $\cdot(y^{114}+6y^{113}+\cdots+2982089y+121801)$
c_{10}	$(y^6+y^5+5y^4+6y^2+3y+1)(y^{114}+14y^{113}+\cdots+9y+1)$
c_{12}	$(y^6+y^5+5y^4+6y^2+3y+1)$ $\cdot(y^{114}+26y^{113}+\cdots+126216321y+2512225)$