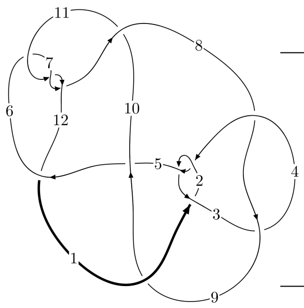
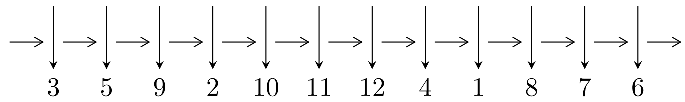
$12a_{0145}$ ($K12a_{0145}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -u^{95} + 37u^{93} + \cdots + b - u,\ -u^{95} + u^{94} + \cdots + a + 1,\ u^{97} - 2u^{96} + \cdots + u - 1\rangle$$
$$I_2^u = \langle u^7 - 2u^5 + u^4 + u^3 - u^2 + b + u,\ u^7 + u^6 - 2u^5 - 2u^4 + u^3 + u^2 + a + u + 1,$$
$$u^8 + u^7 - 3u^6 - 2u^5 + 3u^4 + 2u - 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 105 representations.

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[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.

$$\boldsymbol{I_1^u = \langle -u^{95}+37u^{93}+\cdots+b-u,\ -u^{95}+u^{94}+\cdots+a+1,\ u^{97}-2u^{96}+\cdots+u-1\rangle}$$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^{95} - u^{94} + \cdots + u - 1 \\ u^{95} - 37u^{93} + \cdots - u^2 + u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^{15} + 6u^{13} - 14u^{11} + 14u^9 - 2u^7 - 6u^5 + 2u^3 + 2u \\ -u^{15} + 5u^{13} - 8u^{11} + u^9 + 8u^7 - 4u^5 - 2u^3 + u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^{95} - u^{94} + \cdots + 5u^3 - u^2 \\ 2u^{96} - u^{95} + \cdots - 8u^2 + 2 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^5 + 2u^3 - u \\ -u^5 + u^3 + u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^3 + 2u \\ -u^5 + u^3 + u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^{10} - 5u^8 + 8u^6 - 3u^4 - 3u^2 + 1 \\ u^{12} - 4u^{10} + 4u^8 + 2u^6 - 3u^4 - 2u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^{95} - u^{94} + \cdots - 4u^2 + u \\ u^{96} - 39u^{94} + \cdots + u + 1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 9u^{96} - 8u^{95} + \cdots - 13u - 7$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{97} + 45u^{96} + \cdots + 33u + 1$
c_2, c_4	$u^{97} - 9u^{96} + \cdots - u + 1$
c_3, c_8	$u^{97} - u^{96} + \cdots + 384u + 256$
c_5	$u^{97} - 2u^{96} + \cdots + 1189u + 137$
c_6, c_7, c_{11}	$u^{97} + 2u^{96} + \cdots + u + 1$
c_9	$u^{97} + 8u^{96} + \cdots + 1059257u + 154033$
c_{10}, c_{12}	$u^{97} - 6u^{96} + \cdots - 239u + 77$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{97} + 23y^{96} + \cdots + 1253y - 1$
c_2, c_4	$y^{97} - 45y^{96} + \cdots + 33y - 1$
c_3, c_8	$y^{97} + 51y^{96} + \cdots - 1130496y - 65536$
c_5	$y^{97} + 98y^{95} + \cdots - 285079y - 18769$
c_6, c_7, c_{11}	$y^{97} - 80y^{96} + \cdots + 9y - 1$
c_9	$y^{97} + 36y^{96} + \cdots - 192418294111y - 23726165089$
c_{10}, c_{12}	$y^{97} + 64y^{96} + \cdots + 69133y - 5929$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.076300 + 0.183005I$ $a = 0.130363 - 0.085867I$ $b = -0.006250 - 0.958976I$	$-1.51529 - 2.04174I$	0
$u = 1.076300 - 0.183005I$ $a = 0.130363 + 0.085867I$ $b = -0.006250 + 0.958976I$	$-1.51529 + 2.04174I$	0
$u = -1.118950 + 0.358927I$ $a = 0.204765 - 1.283210I$ $b = -1.44474 - 2.86226I$	$2.58320 - 8.29355I$	0
$u = -1.118950 - 0.358927I$ $a = 0.204765 + 1.283210I$ $b = -1.44474 + 2.86226I$	$2.58320 + 8.29355I$	0
$u = -0.126507 + 0.813406I$ $a = -0.88778 - 2.82040I$ $b = 0.656917 + 0.751120I$	$5.60707 + 12.55680I$	$-7.94553 - 8.56908I$
$u = -0.126507 - 0.813406I$ $a = -0.88778 + 2.82040I$ $b = 0.656917 - 0.751120I$	$5.60707 - 12.55680I$	$-7.94553 + 8.56908I$
$u = -0.114542 + 0.813510I$ $a = 0.90688 + 2.89676I$ $b = -0.511057 - 0.767427I$	$7.79765 + 6.77920I$	$-4.92908 - 4.46483I$
$u = -0.114542 - 0.813510I$ $a = 0.90688 - 2.89676I$ $b = -0.511057 + 0.767427I$	$7.79765 - 6.77920I$	$-4.92908 + 4.46483I$
$u = -0.073078 + 0.816109I$ $a = 0.85010 + 2.82869I$ $b = -0.042433 - 0.632490I$	$9.09233 + 2.43008I$	$-3.53506 - 2.81478I$
$u = -0.073078 - 0.816109I$ $a = 0.85010 - 2.82869I$ $b = -0.042433 + 0.632490I$	$9.09233 - 2.43008I$	$-3.53506 + 2.81478I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.053392+0.816761I$ $a=-0.86603-2.65617I$ $b=-0.104329+0.536098I$	$7.87684-3.37088I$	$-5.11230+2.63195I$
$u=-0.053392-0.816761I$ $a=-0.86603+2.65617I$ $b=-0.104329-0.536098I$	$7.87684+3.37088I$	$-5.11230-2.63195I$
$u=\quad 0.111101+0.799935I$ $a=\quad 1.288940+0.391351I$ $b=\quad 0.188694-0.395318I$	$2.82430-6.28995I$	$-8.96385+6.07637I$
$u=\quad 0.111101-0.799935I$ $a=\quad 1.288940-0.391351I$ $b=\quad 0.188694+0.395318I$	$2.82430+6.28995I$	$-8.96385-6.07637I$
$u=-1.137870+0.358762I$ $a=-0.05121+1.51386I$ $b=\quad 1.60910+3.09123I$	$4.67850-2.52431I$	0
$u=-1.137870-0.358762I$ $a=-0.05121-1.51386I$ $b=\quad 1.60910-3.09123I$	$4.67850+2.52431I$	0
$u=\quad 1.144730+0.337722I$ $a=-0.109726-0.311521I$ $b=-0.944110-0.801712I$	$-0.31619+2.14672I$	0
$u=\quad 1.144730-0.337722I$ $a=-0.109726+0.311521I$ $b=-0.944110+0.801712I$	$-0.31619-2.14672I$	0
$u=-0.103420+0.790241I$ $a=-0.96997-3.10450I$ $b=\quad 0.323567+1.128250I$	$1.70977+3.78539I$	$-7.61756-4.82864I$
$u=-0.103420-0.790241I$ $a=-0.96997+3.10450I$ $b=\quad 0.323567-1.128250I$	$1.70977-3.78539I$	$-7.61756+4.82864I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.085353 + 0.791661I$ $a = -1.038950 - 0.762296I$ $b = -0.252154 + 0.312520I$	$3.68280 - 1.75925I$	$-7.15174 + 0.63615I$
$u = 0.085353 - 0.791661I$ $a = -1.038950 + 0.762296I$ $b = -0.252154 - 0.312520I$	$3.68280 + 1.75925I$	$-7.15174 - 0.63615I$
$u = -1.160010 + 0.325334I$ $a = 0.19316 - 2.24370I$ $b = -1.63673 - 3.84153I$	$-1.49498 + 0.27763I$	0
$u = -1.160010 - 0.325334I$ $a = 0.19316 + 2.24370I$ $b = -1.63673 + 3.84153I$	$-1.49498 - 0.27763I$	0
$u = 1.182250 + 0.335072I$ $a = 0.255858 + 0.190904I$ $b = 1.180070 + 0.374378I$	$0.33868 - 2.32547I$	0
$u = 1.182250 - 0.335072I$ $a = 0.255858 - 0.190904I$ $b = 1.180070 - 0.374378I$	$0.33868 + 2.32547I$	0
$u = 0.143920 + 0.749716I$ $a = 0.840542 - 0.473330I$ $b = -0.143901 - 0.352024I$	$1.23810 - 1.61799I$	$-7.46158 - 0.93127I$
$u = 0.143920 - 0.749716I$ $a = 0.840542 + 0.473330I$ $b = -0.143901 + 0.352024I$	$1.23810 + 1.61799I$	$-7.46158 + 0.93127I$
$u = -1.190710 + 0.363826I$ $a = 0.53577 + 1.88222I$ $b = 2.10121 + 3.28700I$	$5.66672 + 1.82828I$	0
$u = -1.190710 - 0.363826I$ $a = 0.53577 - 1.88222I$ $b = 2.10121 - 3.28700I$	$5.66672 - 1.82828I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.234940 + 0.251161I$ $a = 0.0367038 - 0.0468935I$ $b = 0.429880 - 0.656423I$	$-1.31278 - 1.68000I$	0
$u = 1.234940 - 0.251161I$ $a = 0.0367038 + 0.0468935I$ $b = 0.429880 + 0.656423I$	$-1.31278 + 1.68000I$	0
$u = -1.210910 + 0.365700I$ $a = -0.69971 - 1.90645I$ $b = -2.14117 - 3.22189I$	$4.31801 + 7.63181I$	0
$u = -1.210910 - 0.365700I$ $a = -0.69971 + 1.90645I$ $b = -2.14117 + 3.22189I$	$4.31801 - 7.63181I$	0
$u = 0.067904 + 0.716739I$ $a = 0.005795 - 1.052530I$ $b = -0.418357 + 0.045210I$	$2.22161 - 1.81122I$	$-6.58757 + 4.34433I$
$u = 0.067904 - 0.716739I$ $a = 0.005795 + 1.052530I$ $b = -0.418357 - 0.045210I$	$2.22161 + 1.81122I$	$-6.58757 - 4.34433I$
$u = 0.694155 + 0.155276I$ $a = -0.129694 - 0.373429I$ $b = -0.284181 + 0.715904I$	$-1.64822 + 1.85592I$	$-13.39585 - 2.90468I$
$u = 0.694155 - 0.155276I$ $a = -0.129694 + 0.373429I$ $b = -0.284181 - 0.715904I$	$-1.64822 - 1.85592I$	$-13.39585 + 2.90468I$
$u = 0.166510 + 0.680908I$ $a = -0.652095 + 1.069380I$ $b = 0.462505 + 0.336470I$	$0.37978 - 5.08479I$	$-10.13756 + 7.85339I$
$u = 0.166510 - 0.680908I$ $a = -0.652095 - 1.069380I$ $b = 0.462505 - 0.336470I$	$0.37978 + 5.08479I$	$-10.13756 - 7.85339I$

Solutions to I_1^u		$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u =$	$1.290550 + 0.155428I$		
$a =$	$0.330614 + 0.169609I$	$-1.26131 - 1.89849I$	0
$b =$	$0.634930 - 0.619092I$		
$u =$	$1.290550 - 0.155428I$		
$a =$	$0.330614 - 0.169609I$	$-1.26131 + 1.89849I$	0
$b =$	$0.634930 + 0.619092I$		
$u =$	$-1.299620 + 0.260517I$		
$a =$	$1.71939 + 0.85305I$	$-4.80583 + 2.13843I$	0
$b =$	$2.59874 + 0.76974I$		
$u =$	$-1.299620 - 0.260517I$		
$a =$	$1.71939 - 0.85305I$	$-4.80583 - 2.13843I$	0
$b =$	$2.59874 - 0.76974I$		
$u =$	$-1.335730 + 0.026914I$		
$a =$	$1.229910 + 0.335097I$	$-5.57709 + 0.21725I$	0
$b =$	$1.44608 + 0.35864I$		
$u =$	$-1.335730 - 0.026914I$		
$a =$	$1.229910 - 0.335097I$	$-5.57709 - 0.21725I$	0
$b =$	$1.44608 - 0.35864I$		
$u =$	$1.310410 + 0.279225I$		
$a =$	$0.688209 + 0.224075I$	$-5.06350 - 4.46571I$	0
$b =$	$0.37451 + 1.55998I$		
$u =$	$1.310410 - 0.279225I$		
$a =$	$0.688209 - 0.224075I$	$-5.06350 + 4.46571I$	0
$b =$	$0.37451 - 1.55998I$		
$u =$	$-0.535358 + 0.374511I$		
$a =$	$1.62509 + 1.47845I$	$1.26298 + 8.74212I$	$-11.9170 - 9.0216I$
$b =$	$0.223110 + 0.775600I$		
$u =$	$-0.535358 - 0.374511I$		
$a =$	$1.62509 - 1.47845I$	$1.26298 - 8.74212I$	$-11.9170 + 9.0216I$
$b =$	$0.223110 - 0.775600I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.312070 + 0.304653I$ $a = -0.978270 - 0.798937I$ $b = -1.60919 - 0.98606I$	$-2.10580 + 5.52005I$	0
$u = -1.312070 - 0.304653I$ $a = -0.978270 + 0.798937I$ $b = -1.60919 + 0.98606I$	$-2.10580 - 5.52005I$	0
$u = 1.301650 + 0.360247I$ $a = 1.24554 - 0.95339I$ $b = 3.26147 - 1.62863I$	$3.64680 - 0.86350I$	0
$u = 1.301650 - 0.360247I$ $a = 1.24554 + 0.95339I$ $b = 3.26147 + 1.62863I$	$3.64680 + 0.86350I$	0
$u = 1.333670 + 0.214386I$ $a = 0.091767 - 0.625950I$ $b = -0.0419970 + 0.0777167I$	$-2.98555 + 2.91120I$	0
$u = 1.333670 - 0.214386I$ $a = 0.091767 + 0.625950I$ $b = -0.0419970 - 0.0777167I$	$-2.98555 - 2.91120I$	0
$u = -0.040986 + 0.644398I$ $a = -0.470789 + 1.316680I$ $b = 0.877565 + 0.056288I$	$-0.789349 + 1.067810I$	$-12.54494 - 0.17404I$
$u = -0.040986 - 0.644398I$ $a = -0.470789 - 1.316680I$ $b = 0.877565 - 0.056288I$	$-0.789349 - 1.067810I$	$-12.54494 + 0.17404I$
$u = 1.361170 + 0.045050I$ $a = -1.68001 + 0.84178I$ $b = -2.82631 + 2.17159I$	$-7.87318 - 1.71980I$	0
$u = 1.361170 - 0.045050I$ $a = -1.68001 - 0.84178I$ $b = -2.82631 - 2.17159I$	$-7.87318 + 1.71980I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.315640 + 0.358977I$ $a = -1.47555 + 1.24858I$ $b = -3.69497 + 1.94814I$	$4.74652 - 6.65977I$	0
$u = 1.315640 - 0.358977I$ $a = -1.47555 - 1.24858I$ $b = -3.69497 - 1.94814I$	$4.74652 + 6.65977I$	0
$u = -1.323330 + 0.342677I$ $a = -0.124269 - 1.289700I$ $b = -0.37275 - 1.97282I$	$-0.73515 + 5.85059I$	0
$u = -1.323330 - 0.342677I$ $a = -0.124269 + 1.289700I$ $b = -0.37275 + 1.97282I$	$-0.73515 - 5.85059I$	0
$u = -1.368030 + 0.059939I$ $a = -1.29273 - 0.90938I$ $b = -1.60119 - 1.03501I$	$-7.09539 + 4.13757I$	0
$u = -1.368030 - 0.059939I$ $a = -1.29273 + 0.90938I$ $b = -1.60119 + 1.03501I$	$-7.09539 - 4.13757I$	0
$u = 1.374290 + 0.079537I$ $a = 1.62166 + 0.00987I$ $b = 2.59757 - 0.79140I$	$-2.53211 - 4.62583I$	0
$u = 1.374290 - 0.079537I$ $a = 1.62166 - 0.00987I$ $b = 2.59757 + 0.79140I$	$-2.53211 + 4.62583I$	0
$u = 1.333520 + 0.341806I$ $a = 1.77954 - 2.08217I$ $b = 4.58642 - 2.78774I$	$-2.80433 - 7.87203I$	0
$u = 1.333520 - 0.341806I$ $a = 1.77954 + 2.08217I$ $b = 4.58642 + 2.78774I$	$-2.80433 + 7.87203I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.348380 + 0.289480I$ $a = 1.44252 + 0.02874I$ $b = 2.06872 - 0.16790I$	$-4.37828 + 8.63452I$	0
$u = -1.348380 - 0.289480I$ $a = 1.44252 - 0.02874I$ $b = 2.06872 + 0.16790I$	$-4.37828 - 8.63452I$	0
$u = -1.338200 + 0.346591I$ $a = -0.258393 + 1.359040I$ $b = -0.24512 + 2.10842I$	$-1.73047 + 10.42640I$	0
$u = -1.338200 - 0.346591I$ $a = -0.258393 - 1.359040I$ $b = -0.24512 - 2.10842I$	$-1.73047 - 10.42640I$	0
$u = -0.484186 + 0.378282I$ $a = -1.50954 - 1.53900I$ $b = -0.322758 - 0.792431I$	$3.24484 + 3.24235I$	$-8.65530 - 4.94862I$
$u = -0.484186 - 0.378282I$ $a = -1.50954 + 1.53900I$ $b = -0.322758 + 0.792431I$	$3.24484 - 3.24235I$	$-8.65530 + 4.94862I$
$u = -1.349460 + 0.319480I$ $a = -0.829122 + 0.586131I$ $b = -1.15265 + 0.96709I$	$-3.46530 + 5.49686I$	0
$u = -1.349460 - 0.319480I$ $a = -0.829122 - 0.586131I$ $b = -1.15265 - 0.96709I$	$-3.46530 - 5.49686I$	0
$u = 1.341310 + 0.353804I$ $a = -2.06581 + 1.68918I$ $b = -4.57878 + 2.14247I$	$3.22187 - 10.98640I$	0
$u = 1.341310 - 0.353804I$ $a = -2.06581 - 1.68918I$ $b = -4.57878 - 2.14247I$	$3.22187 + 10.98640I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.390800 + 0.073948I$ $a = -1.94759 - 0.11301I$ $b = -3.08499 + 0.56757I$	$-4.75509 - 10.05740I$	0
$u = 1.390800 - 0.073948I$ $a = -1.94759 + 0.11301I$ $b = -3.08499 - 0.56757I$	$-4.75509 + 10.05740I$	0
$u = 1.348030 + 0.352429I$ $a = 2.21445 - 1.72567I$ $b = 4.71204 - 2.06495I$	$0.9676 - 16.7600I$	0
$u = 1.348030 - 0.352429I$ $a = 2.21445 + 1.72567I$ $b = 4.71204 + 2.06495I$	$0.9676 + 16.7600I$	0
$u = -1.395620 + 0.017256I$ $a = -0.419590 - 1.142350I$ $b = -0.52309 - 1.38433I$	$-7.89376 - 1.50579I$	0
$u = -1.395620 - 0.017256I$ $a = -0.419590 + 1.142350I$ $b = -0.52309 + 1.38433I$	$-7.89376 + 1.50579I$	0
$u = -0.303128 + 0.514916I$ $a = 0.760246 + 1.014040I$ $b = 0.734346 + 0.775395I$	$1.99642 - 5.50453I$	$-9.70697 + 2.05579I$
$u = -0.303128 - 0.514916I$ $a = 0.760246 - 1.014040I$ $b = 0.734346 - 0.775395I$	$1.99642 + 5.50453I$	$-9.70697 - 2.05579I$
$u = -0.338950 + 0.455365I$ $a = -0.93268 - 1.30856I$ $b = -0.595427 - 0.780173I$	$3.69304 - 0.15503I$	$-6.96002 - 3.29097I$
$u = -0.338950 - 0.455365I$ $a = -0.93268 + 1.30856I$ $b = -0.595427 + 0.780173I$	$3.69304 + 0.15503I$	$-6.96002 + 3.29097I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.467931 + 0.308565I$ $a = 0.084687 - 0.878435I$ $b = -0.670638 + 0.271758I$	$-1.42451 - 3.05583I$	$-14.0334 + 7.0667I$
$u = 0.467931 - 0.308565I$ $a = 0.084687 + 0.878435I$ $b = -0.670638 - 0.271758I$	$-1.42451 + 3.05583I$	$-14.0334 - 7.0667I$
$u = -0.430554 + 0.233040I$ $a = 1.65460 + 2.24861I$ $b = 0.407916 + 0.668554I$	$-2.34524 + 0.90469I$	$-12.7209 - 7.5741I$
$u = -0.430554 - 0.233040I$ $a = 1.65460 - 2.24861I$ $b = 0.407916 - 0.668554I$	$-2.34524 - 0.90469I$	$-12.7209 + 7.5741I$
$u = 0.248050 + 0.339715I$ $a = -0.509169 + 1.177470I$ $b = 0.609743 + 0.066227I$	$-0.830925 + 0.497747I$	$-11.61503 + 1.83140I$
$u = 0.248050 - 0.339715I$ $a = -0.509169 - 1.177470I$ $b = 0.609743 - 0.066227I$	$-0.830925 - 0.497747I$	$-11.61503 - 1.83140I$
$u = 0.337597$ $a = -0.676853$ $b = 0.328344$	-0.597166	-16.5590

II. $\boldsymbol{I_2^u = \langle u^7 - 2u^5 + u^4 + u^3 - u^2 + b + u,\ u^7 + u^6 - 2u^5 - 2u^4 + u^3 + u^2 + a + u + 1,\ u^8 + u^7 - 3u^6 - 2u^5 + 3u^4 + 2u - 1\rangle}$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^7 - u^6 + 2u^5 + 2u^4 - u^3 - u^2 - u - 1 \\ -u^7 + 2u^5 - u^4 - u^3 + u^2 - u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^7 - u^6 + 2u^5 + 2u^4 - u^3 - u^2 - u - 1 \\ -u^7 + 2u^5 - u^4 - u^3 + u^2 - u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^5 + 2u^3 - u \\ -u^5 + u^3 + u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^3 + 2u \\ -u^5 + u^3 + u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^5 - 2u^3 + u \\ u^5 - u^3 - u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u^7 - u^6 + u^5 + 2u^4 + u^3 - u^2 - 2u - 1 \\ -u^7 + u^5 - u^4 + u^2 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= u^7 - 2u^6 - 2u^5 + 8u^4 - 3u^3 - 7u^2 + 8u - 19$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2	$(u-1)^8$
c_3, c_8	u^8
c_4	$(u+1)^8$
c_5, c_9	$u^8 - u^7 - u^6 + 2u^5 + u^4 - 2u^3 + 2u - 1$
c_6, c_7	$u^8 + u^7 - 3u^6 - 2u^5 + 3u^4 + 2u - 1$
c_{10}, c_{12}	$u^8 + 3u^7 + 7u^6 + 10u^5 + 11u^4 + 10u^3 + 6u^2 + 4u + 1$
c_{11}	$u^8 - u^7 - 3u^6 + 2u^5 + 3u^4 - 2u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4	$(y-1)^8$
c_3, c_8	y^8
c_5, c_9	$y^8 - 3y^7 + 7y^6 - 10y^5 + 11y^4 - 10y^3 + 6y^2 - 4y + 1$
c_6, c_7, c_{11}	$y^8 - 7y^7 + 19y^6 - 22y^5 + 3y^4 + 14y^3 - 6y^2 - 4y + 1$
c_{10}, c_{12}	$y^8 + 5y^7 + 11y^6 + 6y^5 - 17y^4 - 34y^3 - 22y^2 - 4y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.180120 + 0.268597I$ $a = -0.663977 - 0.849844I$ $b = -0.33804 - 1.54318I$	$-2.68559 - 1.13123I$	$-15.9046 + 0.8051I$
$u = 1.180120 - 0.268597I$ $a = -0.663977 + 0.849844I$ $b = -0.33804 + 1.54318I$	$-2.68559 + 1.13123I$	$-15.9046 - 0.8051I$
$u = 0.108090 + 0.747508I$ $a = 0.727959 - 0.566792I$ $b = -0.306664 + 0.427719I$	$0.51448 - 2.57849I$	$-11.78039 + 3.88175I$
$u = 0.108090 - 0.747508I$ $a = 0.727959 + 0.566792I$ $b = -0.306664 - 0.427719I$	$0.51448 + 2.57849I$	$-11.78039 - 3.88175I$
$u = -1.37100$ $a = 0.910598$ $b = 1.71160$	-8.14766	-19.8290
$u = -1.334530 + 0.318930I$ $a = -0.690511 - 0.438656I$ $b = -1.53294 - 0.14882I$	$-4.02461 + 6.44354I$	$-16.5091 - 6.0410I$
$u = -1.334530 - 0.318930I$ $a = -0.690511 + 0.438656I$ $b = -1.53294 + 0.14882I$	$-4.02461 - 6.44354I$	$-16.5091 + 6.0410I$
$u = 0.463640$ $a = -1.65754$ $b = -0.356309$	-2.48997	-16.7830

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^8)(u^{97}+45u^{96}+\cdots+33u+1)$
c_2	$((u-1)^8)(u^{97}-9u^{96}+\cdots-u+1)$
c_3, c_8	$u^8(u^{97}-u^{96}+\cdots+384u+256)$
c_4	$((u+1)^8)(u^{97}-9u^{96}+\cdots-u+1)$
c_5	$(u^8-u^7-u^6+2u^5+u^4-2u^3+2u-1)$ $\cdot(u^{97}-2u^{96}+\cdots+1189u+137)$
c_6, c_7	$(u^8+u^7-3u^6-2u^5+3u^4+2u-1)(u^{97}+2u^{96}+\cdots+u+1)$
c_9	$(u^8-u^7-u^6+2u^5+u^4-2u^3+2u-1)$ $\cdot(u^{97}+8u^{96}+\cdots+1059257u+154033)$
c_{10}, c_{12}	$(u^8+3u^7+7u^6+10u^5+11u^4+10u^3+6u^2+4u+1)$ $\cdot(u^{97}-6u^{96}+\cdots-239u+77)$
c_{11}	$(u^8-u^7-3u^6+2u^5+3u^4-2u-1)(u^{97}+2u^{96}+\cdots+u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^8)(y^{97}+23y^{96}+\cdots+1253y-1)$
c_2, c_4	$((y-1)^8)(y^{97}-45y^{96}+\cdots+33y-1)$
c_3, c_8	$y^8(y^{97}+51y^{96}+\cdots-1130496y-65536)$
c_5	$(y^8-3y^7+7y^6-10y^5+11y^4-10y^3+6y^2-4y+1)$ $\cdot\,(y^{97}+98y^{95}+\cdots-285079y-18769)$
c_6, c_7, c_{11}	$(y^8-7y^7+19y^6-22y^5+3y^4+14y^3-6y^2-4y+1)$ $\cdot\,(y^{97}-80y^{96}+\cdots+9y-1)$
c_9	$(y^8-3y^7+7y^6-10y^5+11y^4-10y^3+6y^2-4y+1)$ $\cdot\,(y^{97}+36y^{96}+\cdots-192418294111y-23726165089)$
c_{10}, c_{12}	$(y^8+5y^7+11y^6+6y^5-17y^4-34y^3-22y^2-4y+1)$ $\cdot\,(y^{97}+64y^{96}+\cdots+69133y-5929)$