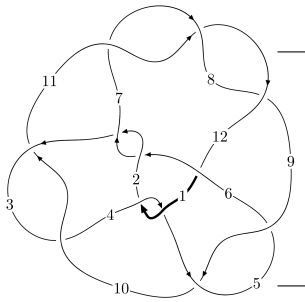
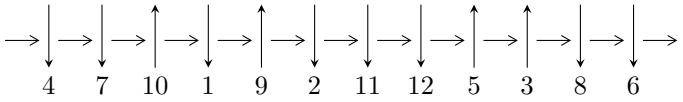
$12a_{1084}$ $(K12a_{1084})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 5.41095 \times 10^{226} u^{98} - 5.69026 \times 10^{226} u^{97} + \cdots + 5.42259 \times 10^{227} b - 1.90870 \times 10^{229}, \\ & - 2.17596 \times 10^{230} u^{98} + 3.39515 \times 10^{230} u^{97} + \cdots + 5.43886 \times 10^{230} a + 4.44885 \times 10^{233}, \\ & u^{99} - 4u^{98} + \cdots + 2545u + 1003 \rangle \\ I_2^u = \langle & 2996823u^{26} + 3522809u^{25} + \cdots + 792677b - 4094869, \\ & - 533686u^{26} + 1883904u^{25} + \cdots + 792677a + 5658204,\ u^{27} + 3u^{26} + \cdots + 5u - 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 126 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. $\boldsymbol{I_1^u = \langle 5.41 \times 10^{226} u^{98} - 5.69 \times 10^{226} u^{97} + \cdots + 5.42 \times 10^{227} b - 1.91 \times 10^{229},\ -2.18 \times 10^{230} u^{98} + 3.40 \times 10^{230} u^{97} + \cdots + 5.44 \times 10^{230} a + 4.45 \times 10^{233},\ u^{99} - 4u^{98} + \cdots + 2545u + 1003 \rangle}$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.400077u^{98} - 0.624239u^{97} + \cdots - 1633.59u - 817.975 \\ -0.0997853u^{98} + 0.104936u^{97} + \cdots + 340.396u + 35.1990 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.300292u^{98} - 0.519303u^{97} + \cdots - 1293.20u - 782.776 \\ -0.0997853u^{98} + 0.104936u^{97} + \cdots + 340.396u + 35.1990 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.0548331u^{98} - 0.912289u^{97} + \cdots + 1474.97u + 778.578 \\ 0.0336398u^{98} - 0.236589u^{97} + \cdots + 237.616u + 235.987 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.0408862u^{98} - 1.05461u^{97} + \cdots + 1912.99u + 1025.59 \\ 0.0737455u^{98} - 0.370751u^{97} + \cdots + 271.358u + 328.673 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.695680u^{98} + 1.69937u^{97} + \cdots + 1342.50u + 887.962 \\ -0.590927u^{98} + 1.84609u^{97} + \cdots + 488.653u - 21.2569 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1.75208u^{98} - 4.12027u^{97} + \cdots - 3777.53u - 756.930 \\ 1.86946u^{98} - 4.33276u^{97} + \cdots - 4177.35u - 1429.35 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1.75093u^{98} - 3.19905u^{97} + \cdots - 6038.12u - 2076.45 \\ 0.485526u^{98} - 0.641300u^{97} + \cdots - 2274.29u - 1238.76 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.887479u^{98} + 2.43148u^{97} + \cdots + 1143.39u + 1477.84$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{99} - 8u^{98} + \cdots + 19u - 1$
c_2, c_6	$u^{99} - 2u^{98} + \cdots - 21137u - 8401$
c_3, c_{10}	$u^{99} + u^{98} + \cdots - 17146u - 20252$
c_5, c_9	$u^{99} - 3u^{98} + \cdots - 1873u - 577$
c_7, c_8, c_{11}	$u^{99} + 4u^{98} + \cdots + 2545u - 1003$
c_{12}	$u^{99} + 2u^{98} + \cdots - 23310064u - 2254444$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{99} + 56y^{98} + \cdots + 87y - 1$
c_2, c_6	$y^{99} - 80y^{98} + \cdots - 692503643y - 70576801$
c_3, c_{10}	$y^{99} + 95y^{98} + \cdots + 3720826236y - 410143504$
c_5, c_9	$y^{99} + 71y^{98} + \cdots - 12786351y - 332929$
c_7, c_8, c_{11}	$y^{99} - 120y^{98} + \cdots + 48189789y - 1006009$
c_{12}	$y^{99} - 42y^{98} + \cdots + 169128066365000y - 5082517749136$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.671582 + 0.666153I$ $a = -0.81851 - 1.26445I$ $b = 1.39390 + 0.42952I$	$-3.01360 - 7.08917I$	0
$u = 0.671582 - 0.666153I$ $a = -0.81851 + 1.26445I$ $b = 1.39390 - 0.42952I$	$-3.01360 + 7.08917I$	0
$u = 0.625140 + 0.686233I$ $a = 0.834216 + 0.986532I$ $b = -1.391950 - 0.146302I$	$-5.26496 - 2.40033I$	0
$u = 0.625140 - 0.686233I$ $a = 0.834216 - 0.986532I$ $b = -1.391950 + 0.146302I$	$-5.26496 + 2.40033I$	0
$u = 0.422701 + 0.807441I$ $a = -1.30778 - 0.63709I$ $b = 1.236250 - 0.119711I$	$-2.18481 + 2.18176I$	0
$u = 0.422701 - 0.807441I$ $a = -1.30778 + 0.63709I$ $b = 1.236250 + 0.119711I$	$-2.18481 - 2.18176I$	0
$u = -0.896243 + 0.006019I$ $a = -0.228443 + 0.713126I$ $b = -0.836938 - 0.795713I$	$1.52179 - 2.96179I$	0
$u = -0.896243 - 0.006019I$ $a = -0.228443 - 0.713126I$ $b = -0.836938 + 0.795713I$	$1.52179 + 2.96179I$	0
$u = 0.561471 + 0.662733I$ $a = 0.709135 + 1.118490I$ $b = -1.366860 - 0.093390I$	$-5.13995 - 2.31729I$	0
$u = 0.561471 - 0.662733I$ $a = 0.709135 - 1.118490I$ $b = -1.366860 + 0.093390I$	$-5.13995 + 2.31729I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.632131 + 0.587585I$ $a = -0.128876 + 0.582565I$ $b = -1.121870 - 0.038053I$	$-4.62953 - 2.16317I$	0
$u = 0.632131 - 0.587585I$ $a = -0.128876 - 0.582565I$ $b = -1.121870 + 0.038053I$	$-4.62953 + 2.16317I$	0
$u = 1.15287$ $a = -0.329540$ $b = -0.490126$	-2.39809	0
$u = -0.647182 + 0.484954I$ $a = 0.81717 - 1.19305I$ $b = -0.064411 + 0.544461I$	$-5.31603 + 1.89708I$	0
$u = -0.647182 - 0.484954I$ $a = 0.81717 + 1.19305I$ $b = -0.064411 - 0.544461I$	$-5.31603 - 1.89708I$	0
$u = -0.656533 + 0.429069I$ $a = -0.31014 + 1.49332I$ $b = 0.055583 - 1.009320I$	$-2.21186 + 7.67640I$	0
$u = -0.656533 - 0.429069I$ $a = -0.31014 - 1.49332I$ $b = 0.055583 + 1.009320I$	$-2.21186 - 7.67640I$	0
$u = -0.884666 + 0.838961I$ $a = 0.548928 - 1.096780I$ $b = -1.38567 + 0.40064I$	$-6.8912 + 12.6306I$	0
$u = -0.884666 - 0.838961I$ $a = 0.548928 + 1.096780I$ $b = -1.38567 - 0.40064I$	$-6.8912 - 12.6306I$	0
$u = 0.389722 + 0.629908I$ $a = -0.832777 + 0.668407I$ $b = 0.292539 - 0.596900I$	$0.39264 - 3.39831I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.389722 - 0.629908I$ $a = -0.832777 - 0.668407I$ $b = 0.292539 + 0.596900I$	$0.39264 + 3.39831I$	0
$u = 0.459085 + 0.568866I$ $a = -0.162137 + 0.715721I$ $b = 0.927472 - 0.541537I$	$-1.47108 + 3.63726I$	0
$u = 0.459085 - 0.568866I$ $a = -0.162137 - 0.715721I$ $b = 0.927472 + 0.541537I$	$-1.47108 - 3.63726I$	0
$u = 0.565793 + 0.435926I$ $a = 1.24415 - 1.19701I$ $b = 1.048280 + 0.361406I$	$-1.81044 - 7.03502I$	0
$u = 0.565793 - 0.435926I$ $a = 1.24415 + 1.19701I$ $b = 1.048280 - 0.361406I$	$-1.81044 + 7.03502I$	0
$u = 0.509382 + 0.498338I$ $a = 0.132878 - 1.139320I$ $b = 0.344177 + 0.527838I$	$-0.086668 - 0.470961I$	0
$u = 0.509382 - 0.498338I$ $a = 0.132878 + 1.139320I$ $b = 0.344177 - 0.527838I$	$-0.086668 + 0.470961I$	0
$u = -0.232634 + 1.269800I$ $a = 0.987311 - 0.040384I$ $b = -1.269770 - 0.132436I$	$-4.83968 - 6.00928I$	0
$u = -0.232634 - 1.269800I$ $a = 0.987311 + 0.040384I$ $b = -1.269770 + 0.132436I$	$-4.83968 + 6.00928I$	0
$u = -0.626540 + 0.273548I$ $a = 0.93551 - 2.09001I$ $b = -1.234250 + 0.462376I$	$-8.25997 + 1.73585I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.626540-0.273548I$ $a=\ \ 0.93551+2.09001I$ $b=-1.234250-0.462376I$	$-8.25997-1.73585I$	0
$u=-0.362556+0.575051I$ $a=-1.68279-0.01512I$ $b=-0.143843+0.295187I$	$-1.23465-4.31084I$	0
$u=-0.362556-0.575051I$ $a=-1.68279+0.01512I$ $b=-0.143843-0.295187I$	$-1.23465+4.31084I$	0
$u=\ \ 0.676867+0.044621I$ $a=\ \ 0.94289+1.18081I$ $b=\ \ 0.469702+0.239598I$	$0.632736+0.678056I$	0
$u=\ \ 0.676867-0.044621I$ $a=\ \ 0.94289-1.18081I$ $b=\ \ 0.469702-0.239598I$	$0.632736-0.678056I$	0
$u=-0.647432+0.189841I$ $a=-0.72737+1.72532I$ $b=\ \ 1.49112-0.35700I$	$-7.01581-2.36185I$	0
$u=-0.647432-0.189841I$ $a=-0.72737-1.72532I$ $b=\ \ 1.49112+0.35700I$	$-7.01581+2.36185I$	0
$u=\ \ 1.339350+0.111965I$ $a=\ \ 0.148541+0.088908I$ $b=-0.442208+0.756719I$	$-1.48538-0.70299I$	0
$u=\ \ 1.339350-0.111965I$ $a=\ \ 0.148541-0.088908I$ $b=-0.442208-0.756719I$	$-1.48538+0.70299I$	0
$u=-1.42141+0.18001I$ $a=\ \ 0.259621+0.430934I$ $b=\ \ 0.296118-0.499010I$	$-6.11710+2.82126I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.42141-0.18001I$ $a=\ \ 0.259621-0.430934I$ $b=\ \ 0.296118+0.499010I$	$-6.11710-2.82126I$	0
$u=-0.502166+0.238090I$ $a=-0.996833-0.817909I$ $b=-0.908820+0.518858I$	$2.03936+3.39507I$	$0.73878-7.34492I$
$u=-0.502166-0.238090I$ $a=-0.996833+0.817909I$ $b=-0.908820-0.518858I$	$2.03936-3.39507I$	$0.73878+7.34492I$
$u=-0.486584+0.268353I$ $a=\ \ 1.16169-3.08951I$ $b=-1.136470-0.000745I$	$-7.76651+0.21651I$	$-10.72357+1.56326I$
$u=-0.486584-0.268353I$ $a=\ \ 1.16169+3.08951I$ $b=-1.136470+0.000745I$	$-7.76651-0.21651I$	$-10.72357-1.56326I$
$u=-1.44027+0.22382I$ $a=-0.490873-0.025787I$ $b=\ \ 0.225206+0.508462I$	$-5.48236+6.48741I$	0
$u=-1.44027-0.22382I$ $a=-0.490873+0.025787I$ $b=\ \ 0.225206-0.508462I$	$-5.48236-6.48741I$	0
$u=-0.490936+0.178178I$ $a=\ \ 0.24238+3.11516I$ $b=\ \ 1.382040-0.014841I$	$-6.44341+3.68086I$	$-13.6904-4.8990I$
$u=-0.490936-0.178178I$ $a=\ \ 0.24238-3.11516I$ $b=\ \ 1.382040+0.014841I$	$-6.44341-3.68086I$	$-13.6904+4.8990I$
$u=-1.48618+0.00613I$ $a=\ \ 0.098528+0.813606I$ $b=\ \ 0.315796-0.762481I$	$-6.09592+1.64565I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.48618-0.00613I$ $a=\ 0.098528-0.813606I$ $b=\ 0.315796+0.762481I$	$-6.09592-1.64565I$	0
$u=-0.178980+0.439864I$ $a=\ 1.056880+0.579358I$ $b=-0.531876-0.756279I$	$3.23925-1.18451I$	$3.17617+1.25796I$
$u=-0.178980-0.439864I$ $a=\ 1.056880-0.579358I$ $b=-0.531876+0.756279I$	$3.23925+1.18451I$	$3.17617-1.25796I$
$u=\ 0.465205+0.093431I$ $a=-0.07254+2.27543I$ $b=\ 0.204842-1.190100I$	$1.36006-1.43745I$	$-12.0554+7.7332I$
$u=\ 0.465205-0.093431I$ $a=-0.07254-2.27543I$ $b=\ 0.204842+1.190100I$	$1.36006+1.43745I$	$-12.0554-7.7332I$
$u=\ 1.54191+0.03849I$ $a=-0.790361+0.168672I$ $b=-1.305740-0.260764I$	$-4.84551-4.27483I$	0
$u=\ 1.54191-0.03849I$ $a=-0.790361-0.168672I$ $b=-1.305740+0.260764I$	$-4.84551+4.27483I$	0
$u=\ 1.55153$ $a=\ 0.691794$ $b=\ 1.41813$	-8.58947	0
$u=\ 1.56140+0.07649I$ $a=-0.27530+1.40786I$ $b=-1.140370-0.297190I$	$-14.8432-1.4473I$	0
$u=\ 1.56140-0.07649I$ $a=-0.27530-1.40786I$ $b=-1.140370+0.297190I$	$-14.8432+1.4473I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.56585+0.01882I$ $a=-0.050219-0.867231I$ $b=\ \ 0.22809+1.70840I$	$-5.74012+1.79605I$	0
$u=-1.56585-0.01882I$ $a=-0.050219+0.867231I$ $b=\ \ 0.22809-1.70840I$	$-5.74012-1.79605I$	0
$u=\ \ 1.56534+0.05266I$ $a=\ \ 0.653824-1.146550I$ $b=\ \ 1.43207+0.25279I$	$-13.5869-4.5151I$	0
$u=\ \ 1.56534-0.05266I$ $a=\ \ 0.653824+1.146550I$ $b=\ \ 1.43207-0.25279I$	$-13.5869+4.5151I$	0
$u=-0.431395$ $a=\ \ 1.13469$ $b=\ \ 0.946642$	-1.70568	-3.51530
$u=-1.05293+1.16373I$ $a=-0.552771+0.656982I$ $b=\ \ 1.295040-0.191585I$	$-9.47040+4.51904I$	0
$u=-1.05293-1.16373I$ $a=-0.552771-0.656982I$ $b=\ \ 1.295040+0.191585I$	$-9.47040-4.51904I$	0
$u=\ \ 0.284081+0.308258I$ $a=-0.439234-1.143360I$ $b=\ \ 0.214478+0.317345I$	$-0.189428-0.841299I$	$-4.65351+7.98617I$
$u=\ \ 0.284081-0.308258I$ $a=-0.439234+1.143360I$ $b=\ \ 0.214478-0.317345I$	$-0.189428+0.841299I$	$-4.65351-7.98617I$
$u=-1.57655+0.11657I$ $a=\ \ 1.105590+0.283380I$ $b=\ \ 1.302210-0.195925I$	$-9.12473+8.98920I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.57655-0.11657I$ $a=\ \ 1.105590-0.283380I$ $b=\ \ 1.302210+0.195925I$	$-9.12473-8.98920I$	0
$u=-1.57232+0.17577I$ $a=-0.525222-0.887076I$ $b=-1.49086+0.22367I$	$-12.31410+5.28789I$	0
$u=-1.57232-0.17577I$ $a=-0.525222+0.887076I$ $b=-1.49086-0.22367I$	$-12.31410-5.28789I$	0
$u=\ \ 1.60156+0.07631I$ $a=-0.080976+1.002640I$ $b=-1.39765-0.86415I$	$-15.9884-3.0243I$	0
$u=\ \ 1.60156-0.07631I$ $a=-0.080976-1.002640I$ $b=-1.39765+0.86415I$	$-15.9884+3.0243I$	0
$u=\ \ 1.60206+0.11818I$ $a=\ \ 0.083430-0.863594I$ $b=\ \ 0.13553+1.48784I$	$-9.94507-9.67187I$	0
$u=\ \ 1.60206-0.11818I$ $a=\ \ 0.083430+0.863594I$ $b=\ \ 0.13553-1.48784I$	$-9.94507+9.67187I$	0
$u=\ \ 1.60254+0.12020I$ $a=\ \ 0.054616+0.921423I$ $b=-0.244997-1.142180I$	$-13.03140-4.01637I$	0
$u=\ \ 1.60254-0.12020I$ $a=\ \ 0.054616-0.921423I$ $b=-0.244997+1.142180I$	$-13.03140+4.01637I$	0
$u=\ \ 1.60624+0.05496I$ $a=\ \ 0.120137-0.790933I$ $b=\ \ 1.72208+0.68668I$	$-14.8594+1.4437I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.60624 - 0.05496I$ $a = 0.120137 + 0.790933I$ $b = 1.72208 - 0.68668I$	$-14.8594 - 1.4437I$	0
$u = -1.60055 + 0.19017I$ $a = -0.198672 - 0.849455I$ $b = -1.62688 + 0.39160I$	$-12.79020 + 5.57261I$	0
$u = -1.60055 - 0.19017I$ $a = -0.198672 + 0.849455I$ $b = -1.62688 - 0.39160I$	$-12.79020 - 5.57261I$	0
$u = -1.60485 + 0.15048I$ $a = -0.502230 - 0.340729I$ $b = -1.46981 + 0.03824I$	$-12.27220 + 4.78564I$	0
$u = -1.60485 - 0.15048I$ $a = -0.502230 + 0.340729I$ $b = -1.46981 - 0.03824I$	$-12.27220 - 4.78564I$	0
$u = -1.60258 + 0.19607I$ $a = 0.169020 + 0.982199I$ $b = 1.63051 - 0.67539I$	$-10.6448 + 10.2694I$	0
$u = -1.60258 - 0.19607I$ $a = 0.169020 - 0.982199I$ $b = 1.63051 + 0.67539I$	$-10.6448 - 10.2694I$	0
$u = 1.62021 + 0.16614I$ $a = -0.315343 - 0.768944I$ $b = -0.216820 + 0.664390I$	$-8.17640 + 1.14930I$	0
$u = 1.62021 - 0.16614I$ $a = -0.315343 + 0.768944I$ $b = -0.216820 - 0.664390I$	$-8.17640 - 1.14930I$	0
$u = -1.62325 + 0.26012I$ $a = 0.124507 + 0.886797I$ $b = 1.234980 - 0.275110I$	$-8.93307 + 2.05082I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.62325-0.26012I$ $a=\ \ 0.124507-0.886797I$ $b=\ \ 1.234980+0.275110I$	$-8.93307-2.05082I$	0
$u=-1.68381+0.16522I$ $a=\ \ 0.311492-0.243654I$ $b=\ \ 1.216690+0.286899I$	$-8.81041-0.18615I$	0
$u=-1.68381-0.16522I$ $a=\ \ 0.311492+0.243654I$ $b=\ \ 1.216690-0.286899I$	$-8.81041+0.18615I$	0
$u=\ \ 1.67684+0.25771I$ $a=-0.190408+1.009440I$ $b=-1.55979-0.58138I$	$-15.4166-16.8496I$	0
$u=\ \ 1.67684-0.25771I$ $a=-0.190408-1.009440I$ $b=-1.55979+0.58138I$	$-15.4166+16.8496I$	0
$u=\ \ 1.72467+0.29018I$ $a=\ \ 0.085552-0.899049I$ $b=\ \ 1.49426+0.47195I$	$-18.5482-9.7894I$	0
$u=\ \ 1.72467-0.29018I$ $a=\ \ 0.085552+0.899049I$ $b=\ \ 1.49426-0.47195I$	$-18.5482+9.7894I$	0
$u=\ \ 2.00123+0.53247I$ $a=\ \ 0.067451+0.592695I$ $b=-1.238420-0.242163I$	$-11.31000-2.08418I$	0
$u=\ \ 2.00123-0.53247I$ $a=\ \ 0.067451-0.592695I$ $b=-1.238420+0.242163I$	$-11.31000+2.08418I$	0

II.

$\boldsymbol{I_2^u = \langle 3.00\times 10^6 u^{26} + 3.52\times 10^6 u^{25} + \cdots + 7.93\times 10^5 b - 4.09\times 10^6,\ -5.34\times 10^5 u^{26} + 1.88\times 10^6 u^{25} + \cdots + 7.93\times 10^5 a + 5.66\times 10^6,\ u^{27} + 3u^{26} + \cdots + 5u - 1\rangle}$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.673270u^{26} - 2.37664u^{25} + \cdots + 25.0995u - 7.13810 \\ -3.78064u^{26} - 4.44419u^{25} + \cdots - 21.2698u + 5.16587 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -3.10737u^{26} - 6.82083u^{25} + \cdots + 3.82971u - 1.97222 \\ -3.78064u^{26} - 4.44419u^{25} + \cdots - 21.2698u + 5.16587 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -1.18091u^{26} - 3.85843u^{25} + \cdots + 6.21017u - 5.38505 \\ -1.70258u^{26} - 2.82854u^{25} + \cdots - 3.08295u + 1.50340 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.122342u^{26} - 2.57030u^{25} + \cdots + 10.5145u - 7.58720 \\ -1.42936u^{26} - 2.56048u^{25} + \cdots - 2.39396u + 1.29629 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 3.66248u^{26} + 8.90937u^{25} + \cdots + 4.93561u + 6.12557 \\ -2.59489u^{26} - 4.46514u^{25} + \cdots - 9.49678u + 0.521665 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -1.09427u^{26} - 3.45639u^{25} + \cdots + 4.42081u - 5.18096 \\ -3.64276u^{26} - 4.52291u^{25} + \cdots - 13.9435u + 3.89601 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -4.06341u^{26} - 6.40875u^{25} + \cdots - 8.28744u + 1.23141 \\ -2.48321u^{26} - 3.27273u^{25} + \cdots - 10.3527u + 2.66927 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{2226709}{792677}u^{26} - \frac{4791574}{792677}u^{25} + \cdots + \frac{14581222}{792677}u - \frac{4258801}{792677}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{27} - 3u^{26} + \cdots + 9u - 3$
c_2	$u^{27} - u^{26} + \cdots + 3u - 1$
c_3	$u^{27} + 15u^{25} + \cdots + 5u + 1$
c_4	$u^{27} + 3u^{26} + \cdots + 9u + 3$
c_5	$u^{27} - 2u^{26} + \cdots + 5u - 1$
c_6	$u^{27} + u^{26} + \cdots + 3u + 1$
c_7, c_8	$u^{27} + 3u^{26} + \cdots + 5u - 1$
c_9	$u^{27} + 2u^{26} + \cdots + 5u + 1$
c_{10}	$u^{27} + 15u^{25} + \cdots + 5u - 1$
c_{11}	$u^{27} - 3u^{26} + \cdots + 5u + 1$
c_{12}	$u^{27} + u^{26} + \cdots + 37u - 13$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{27} + 23y^{26} + \cdots - 141y - 9$
c_2, c_6	$y^{27} - 17y^{26} + \cdots + 9y - 1$
c_3, c_{10}	$y^{27} + 30y^{26} + \cdots + 17y - 1$
c_5, c_9	$y^{27} + 18y^{26} + \cdots - 3y - 1$
c_7, c_8, c_{11}	$y^{27} - 37y^{26} + \cdots + 33y - 1$
c_{12}	$y^{27} - 7y^{26} + \cdots + 251y - 169$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.03811$ $a = -0.159209$ $b = -0.784252$	-2.84980	-16.4580
$u = 0.748175 + 0.105655I$ $a = 0.279333 + 0.368664I$ $b = 0.882795 - 0.680720I$	$1.83419 + 2.65297I$	$-0.36090 + 4.60742I$
$u = 0.748175 - 0.105655I$ $a = 0.279333 - 0.368664I$ $b = 0.882795 + 0.680720I$	$1.83419 - 2.65297I$	$-0.36090 - 4.60742I$
$u = 1.294530 + 0.034789I$ $a = -0.259219 + 0.497403I$ $b = -0.182701 + 0.600701I$	$-1.83917 - 1.49800I$	$-9.12397 + 5.41258I$
$u = 1.294530 - 0.034789I$ $a = -0.259219 - 0.497403I$ $b = -0.182701 - 0.600701I$	$-1.83917 + 1.49800I$	$-9.12397 - 5.41258I$
$u = -1.259050 + 0.350704I$ $a = 0.119528 - 0.626909I$ $b = 0.653247 + 0.049288I$	$-7.24454 + 1.88805I$	$-13.81478 - 1.79703I$
$u = -1.259050 - 0.350704I$ $a = 0.119528 + 0.626909I$ $b = 0.653247 - 0.049288I$	$-7.24454 - 1.88805I$	$-13.81478 + 1.79703I$
$u = 0.252879 + 0.611917I$ $a = 1.47088 + 1.30440I$ $b = -1.389330 + 0.017865I$	$-5.27887 - 3.53952I$	$-7.30701 + 5.60328I$
$u = 0.252879 - 0.611917I$ $a = 1.47088 - 1.30440I$ $b = -1.389330 - 0.017865I$	$-5.27887 + 3.53952I$	$-7.30701 - 5.60328I$
$u = -1.365240 + 0.167447I$ $a = 0.449300 + 0.369934I$ $b = -0.429753 + 0.338426I$	$-5.94774 + 7.32226I$	$-10.71991 - 7.51124I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.365240-0.167447I$ $a=\ \ 0.449300-0.369934I$ $b=-0.429753-0.338426I$	$-5.94774-7.32226I$	$-10.71991+7.51124I$
$u=-0.201115+0.528834I$ $a=-1.46674-0.51422I$ $b=-0.639093-0.316370I$	$-1.80312-5.03781I$	$-10.29717+6.83310I$
$u=-0.201115-0.528834I$ $a=-1.46674+0.51422I$ $b=-0.639093+0.316370I$	$-1.80312+5.03781I$	$-10.29717-6.83310I$
$u=-0.439489+0.267686I$ $a=-1.47387+2.97217I$ $b=\ \ 1.190120-0.233496I$	$-7.57088+1.18253I$	$-7.77665-3.74760I$
$u=-0.439489-0.267686I$ $a=-1.47387-2.97217I$ $b=\ \ 1.190120+0.233496I$	$-7.57088-1.18253I$	$-7.77665+3.74760I$
$u=-1.52232+0.01840I$ $a=\ \ 0.139780-0.848382I$ $b=\ \ 0.037051+1.262990I$	$-4.52450-0.76353I$	$-5.42241+0.28908I$
$u=-1.52232-0.01840I$ $a=\ \ 0.139780+0.848382I$ $b=\ \ 0.037051-1.262990I$	$-4.52450+0.76353I$	$-5.42241-0.28908I$
$u=-1.54296+0.15604I$ $a=-0.544250-0.878566I$ $b=-1.57279+0.15201I$	$-11.64350+6.09468I$	$-8.13310-7.08189I$
$u=-1.54296-0.15604I$ $a=-0.544250+0.878566I$ $b=-1.57279-0.15201I$	$-11.64350-6.09468I$	$-8.13310+7.08189I$
$u=\ \ 1.55264+0.06966I$ $a=\ \ 0.246557-1.296030I$ $b=\ \ 1.246470+0.511230I$	$-14.4755-2.3233I$	$-9.43970+3.30668I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.55264 - 0.06966I$ $a = 0.246557 + 1.296030I$ $b = 1.246470 - 0.511230I$	$-14.4755 + 2.3233I$	$-9.43970 - 3.30668I$
$u = -1.61874 + 0.47056I$ $a = 0.022489 + 0.795132I$ $b = 1.280130 - 0.170951I$	$-10.08060 + 2.82444I$	$-12.89711 - 3.14465I$
$u = -1.61874 - 0.47056I$ $a = 0.022489 - 0.795132I$ $b = 1.280130 + 0.170951I$	$-10.08060 - 2.82444I$	$-12.89711 + 3.14465I$
$u = 0.242146 + 0.071939I$ $a = 2.15135 + 3.13574I$ $b = -0.049870 - 0.913367I$	$1.75106 + 1.08204I$	$0.48346 + 1.66701I$
$u = 0.242146 - 0.071939I$ $a = 2.15135 - 3.13574I$ $b = -0.049870 + 0.913367I$	$1.75106 - 1.08204I$	$0.48346 - 1.66701I$
$u = 1.83948 + 0.21736I$ $a = -0.055534 + 0.721360I$ $b = -1.134140 - 0.322128I$	$-10.70870 - 1.45270I$	0
$u = 1.83948 - 0.21736I$ $a = -0.055534 - 0.721360I$ $b = -1.134140 + 0.322128I$	$-10.70870 + 1.45270I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{27}-3u^{26}+\cdots+9u-3)(u^{99}-8u^{98}+\cdots+19u-1)$
c_2	$(u^{27}-u^{26}+\cdots+3u-1)(u^{99}-2u^{98}+\cdots-21137u-8401)$
c_3	$(u^{27}+15u^{25}+\cdots+5u+1)(u^{99}+u^{98}+\cdots-17146u-20252)$
c_4	$(u^{27}+3u^{26}+\cdots+9u+3)(u^{99}-8u^{98}+\cdots+19u-1)$
c_5	$(u^{27}-2u^{26}+\cdots+5u-1)(u^{99}-3u^{98}+\cdots-1873u-577)$
c_6	$(u^{27}+u^{26}+\cdots+3u+1)(u^{99}-2u^{98}+\cdots-21137u-8401)$
c_7, c_8	$(u^{27}+3u^{26}+\cdots+5u-1)(u^{99}+4u^{98}+\cdots+2545u-1003)$
c_9	$(u^{27}+2u^{26}+\cdots+5u+1)(u^{99}-3u^{98}+\cdots-1873u-577)$
c_{10}	$(u^{27}+15u^{25}+\cdots+5u-1)(u^{99}+u^{98}+\cdots-17146u-20252)$
c_{11}	$(u^{27}-3u^{26}+\cdots+5u+1)(u^{99}+4u^{98}+\cdots+2545u-1003)$
c_{12}	$(u^{27}+u^{26}+\cdots+37u-13)$ $\cdot(u^{99}+2u^{98}+\cdots-23310064u-2254444)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$(y^{27}+23y^{26}+\cdots-141y-9)(y^{99}+56y^{98}+\cdots+87y-1)$
c_2, c_6	$(y^{27}-17y^{26}+\cdots+9y-1)$ $\cdot(y^{99}-80y^{98}+\cdots-692503643y-70576801)$
c_3, c_{10}	$(y^{27}+30y^{26}+\cdots+17y-1)$ $\cdot(y^{99}+95y^{98}+\cdots+3720826236y-410143504)$
c_5, c_9	$(y^{27}+18y^{26}+\cdots-3y-1)$ $\cdot(y^{99}+71y^{98}+\cdots-12786351y-332929)$
c_7, c_8, c_{11}	$(y^{27}-37y^{26}+\cdots+33y-1)$ $\cdot(y^{99}-120y^{98}+\cdots+48189789y-1006009)$
c_{12}	$(y^{27}-7y^{26}+\cdots+251y-169)$ $\cdot(y^{99}-42y^{98}+\cdots+169128066365000y-5082517749136)$