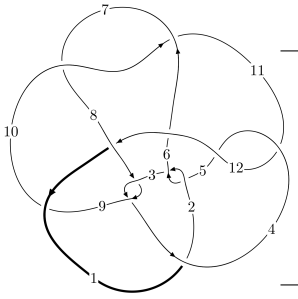
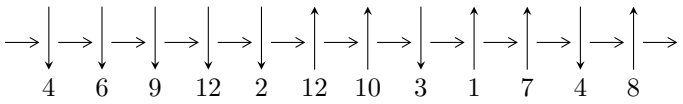
$12n_{0772}$ $(K12n_{0772})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -2.73255 \times 10^{170} u^{87} + 3.77083 \times 10^{170} u^{86} + \cdots + 1.71978 \times 10^{169} b + 4.69942 \times 10^{170}, \\ & - 7.39052 \times 10^{170} u^{87} + 1.04203 \times 10^{171} u^{86} + \cdots + 1.71978 \times 10^{169} a + 1.27642 \times 10^{171}, \\ & u^{88} - 2u^{87} + \cdots - 7u^2 + 1 \rangle \\ I_2^u = \langle & 1869070191 u^{24} + 1444290010 u^{23} + \cdots + 1044856181 b + 1214090807, \\ & 7580555710 u^{24} + 8345483601 u^{23} + \cdots + 1044856181 a - 1136568902,\ u^{25} + u^{24} + \cdots - 9u^2 + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 113 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. $\boldsymbol{I_1^u = \langle -2.73 \times 10^{170} u^{87} + 3.77 \times 10^{170} u^{86} + \cdots + 1.72 \times 10^{169} b + 4.70 \times 10^{170},\ -7.39 \times 10^{170} u^{87} + 1.04 \times 10^{171} u^{86} + \cdots + 1.72 \times 10^{169} a + 1.28 \times 10^{171},\ u^{88} - 2u^{87} + \cdots - 7u^2 + 1 \rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} 42.9735u^{87} - 60.5909u^{86} + \cdots - 109.824u - 74.2200 \\ 15.8889u^{87} - 21.9262u^{86} + \cdots - 39.2450u - 27.3257 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -29.6028u^{87} + 33.5360u^{86} + \cdots + 25.1212u + 32.7939 \\ 7.55835u^{87} - 9.72166u^{86} + \cdots - 17.3864u - 11.9790 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 20.5958u^{87} - 33.3831u^{86} + \cdots - 72.8706u - 43.0649 \\ 5.79378u^{87} - 7.20014u^{86} + \cdots - 11.8431u - 9.92354 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 27.0846u^{87} - 38.6647u^{86} + \cdots - 70.5794u - 46.8944 \\ 15.8889u^{87} - 21.9262u^{86} + \cdots - 39.2450u - 27.3257 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 6.81156u^{87} - 7.84254u^{86} + \cdots - 10.9251u - 11.1767 \\ -10.4758u^{87} + 9.82933u^{86} + \cdots + 5.39362u + 10.8270 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -20.5261u^{87} + 28.6221u^{86} + \cdots + 55.1947u + 37.5188 \\ -16.5192u^{87} + 24.9588u^{86} + \cdots + 53.4694u + 32.4270 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 26.3861u^{87} - 36.7076u^{86} + \cdots - 64.1178u - 45.1799 \\ 27.6983u^{87} - 38.1481u^{86} + \cdots - 68.3642u - 47.0744 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 39.6126u^{87} - 56.9442u^{86} + \cdots - 105.928u - 69.0794 \\ 6.68892u^{87} - 9.17729u^{86} + \cdots - 16.4241u - 11.9172 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -19.2430u^{87} + 15.1487u^{86} + \cdots - 24.6831u + 10.9472$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{88}+8u^{86}+\cdots-22991u-4937$
c_2, c_5	$u^{88}+4u^{87}+\cdots+5u-79$
c_3, c_8	$u^{88}+2u^{87}+\cdots-7u^2+1$
c_4, c_{11}	$u^{88}+u^{87}+\cdots+43878u-1549$
c_6	$u^{88}-2u^{87}+\cdots+2779127u-52466021$
c_7, c_{10}	$u^{88}+5u^{87}+\cdots-39868u-4364$
c_9	$u^{88}-6u^{87}+\cdots-2747u-199$
c_{12}	$u^{88}+2u^{87}+\cdots+4454u-497$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{88} + 16y^{87} + \cdots + 1139448487y + 24373969$
c_2, c_5	$y^{88} - 28y^{87} + \cdots - 157709y + 6241$
c_3, c_8	$y^{88} - 50y^{87} + \cdots - 14y + 1$
c_4, c_{11}	$y^{88} + 73y^{87} + \cdots - 414362598y + 2399401$
c_6	$y^{88} - 54y^{87} + \cdots - 104763397554533243y + 2752683359572441$
c_7, c_{10}	$y^{88} + 51y^{87} + \cdots - 245921472y + 19044496$
c_9	$y^{88} + 20y^{87} + \cdots - 3705309y + 39601$
c_{12}	$y^{88} + 24y^{87} + \cdots - 9443858y + 247009$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.079542+0.994795I$ $a=\ \ 0.076577-0.430813I$ $b=-0.515107-0.686427I$	$-4.50892+1.89281I$	0
$u=-0.079542-0.994795I$ $a=\ \ 0.076577+0.430813I$ $b=-0.515107+0.686427I$	$-4.50892-1.89281I$	0
$u=\ \ 0.922550+0.325110I$ $a=-0.84248-1.14264I$ $b=\ \ 1.142310+0.043068I$	$1.02793+2.90134I$	0
$u=\ \ 0.922550-0.325110I$ $a=-0.84248+1.14264I$ $b=\ \ 1.142310-0.043068I$	$1.02793-2.90134I$	0
$u=\ \ 1.004800+0.289516I$ $a=-0.760460-1.187730I$ $b=-1.14403-1.33949I$	$1.71320-3.32513I$	0
$u=\ \ 1.004800-0.289516I$ $a=-0.760460+1.187730I$ $b=-1.14403+1.33949I$	$1.71320+3.32513I$	0
$u=-0.196060+1.030950I$ $a=\ \ 0.0575028+0.0662019I$ $b=-0.854869+0.920640I$	$3.33215-4.72457I$	0
$u=-0.196060-1.030950I$ $a=\ \ 0.0575028-0.0662019I$ $b=-0.854869-0.920640I$	$3.33215+4.72457I$	0
$u=-0.997536+0.350050I$ $a=\ \ 1.47049+0.22383I$ $b=\ \ 2.03460-0.54513I$	$0.91193+7.76722I$	0
$u=-0.997536-0.350050I$ $a=\ \ 1.47049-0.22383I$ $b=\ \ 2.03460+0.54513I$	$0.91193-7.76722I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.994491 + 0.396359I$ $a = 1.322160 + 0.220742I$ $b = 1.53176 + 0.87479I$	$1.17606 - 1.83937I$	0
$u = 0.994491 - 0.396359I$ $a = 1.322160 - 0.220742I$ $b = 1.53176 - 0.87479I$	$1.17606 + 1.83937I$	0
$u = -0.978685 + 0.444812I$ $a = -0.71631 + 1.39357I$ $b = -0.62924 + 1.49042I$	$0.77445 - 1.30684I$	0
$u = -0.978685 - 0.444812I$ $a = -0.71631 - 1.39357I$ $b = -0.62924 - 1.49042I$	$0.77445 + 1.30684I$	0
$u = 0.173886 + 0.907980I$ $a = 0.103309 + 0.375265I$ $b = 0.504192 - 0.852320I$	$-2.05446 - 3.92042I$	0
$u = 0.173886 - 0.907980I$ $a = 0.103309 - 0.375265I$ $b = 0.504192 + 0.852320I$	$-2.05446 + 3.92042I$	0
$u = -0.844374 + 0.350658I$ $a = 1.022080 + 0.529940I$ $b = -0.690326 - 0.018294I$	$2.79140 + 0.99134I$	0
$u = -0.844374 - 0.350658I$ $a = 1.022080 - 0.529940I$ $b = -0.690326 + 0.018294I$	$2.79140 - 0.99134I$	0
$u = 0.906116$ $a = -0.567609$ $b = -1.52977$	-0.995869	-8.76900
$u = -0.888863 + 0.163693I$ $a = -0.205909 + 0.589104I$ $b = 1.079710 + 0.707273I$	$-5.06797 + 3.76463I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.888863-0.163693I$ $a=-0.205909-0.589104I$ $b=\ 1.079710-0.707273I$	$-5.06797-3.76463I$	0
$u=\ 0.630575+0.642930I$ $a=\ 0.122548+0.416302I$ $b=\ 0.455188-0.491182I$	$-3.15892-2.36393I$	0
$u=\ 0.630575-0.642930I$ $a=\ 0.122548-0.416302I$ $b=\ 0.455188+0.491182I$	$-3.15892+2.36393I$	0
$u=\ 0.191280+1.084180I$ $a=-0.0578598-0.0150131I$ $b=-0.816117-1.074180I$	$1.81959+11.50800I$	0
$u=\ 0.191280-1.084180I$ $a=-0.0578598+0.0150131I$ $b=-0.816117+1.074180I$	$1.81959-11.50800I$	0
$u=-0.933564+0.606799I$ $a=-1.178320+0.078452I$ $b=-0.388800+0.833976I$	$-5.25403-0.40703I$	0
$u=-0.933564-0.606799I$ $a=-1.178320-0.078452I$ $b=-0.388800-0.833976I$	$-5.25403+0.40703I$	0
$u=\ 1.074210+0.315862I$ $a=\ 1.80177+0.35922I$ $b=-0.443621+0.400108I$	$-0.38461-7.33578I$	0
$u=\ 1.074210-0.315862I$ $a=\ 1.80177-0.35922I$ $b=-0.443621-0.400108I$	$-0.38461+7.33578I$	0
$u=-1.079740+0.342099I$ $a=-0.70372+1.50217I$ $b=\ 1.036080+0.425207I$	$0.51946+4.26200I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.079740-0.342099I$ $a=-0.70372-1.50217I$ $b=\ \ 1.036080-0.425207I$	$0.51946-4.26200I$	0
$u=-1.098610+0.357725I$ $a=-0.08521+1.61396I$ $b=\ \ 0.682577+0.717539I$	$-1.10713+4.06055I$	0
$u=-1.098610-0.357725I$ $a=-0.08521-1.61396I$ $b=\ \ 0.682577-0.717539I$	$-1.10713-4.06055I$	0
$u=\ \ 1.168960+0.060743I$ $a=\ \ 0.381332-1.242970I$ $b=\ \ 0.490184-0.886114I$	$-2.00609-0.18246I$	0
$u=\ \ 1.168960-0.060743I$ $a=\ \ 0.381332+1.242970I$ $b=\ \ 0.490184+0.886114I$	$-2.00609+0.18246I$	0
$u=\ \ 1.104330+0.416918I$ $a=\ \ 0.23128+2.23065I$ $b=-1.13731+1.37000I$	$-6.21224-6.88000I$	0
$u=\ \ 1.104330-0.416918I$ $a=\ \ 0.23128-2.23065I$ $b=-1.13731-1.37000I$	$-6.21224+6.88000I$	0
$u=-1.166520+0.258171I$ $a=-0.25604-2.07092I$ $b=-0.60959-1.37557I$	$-7.78844+4.33788I$	0
$u=-1.166520-0.258171I$ $a=-0.25604+2.07092I$ $b=-0.60959+1.37557I$	$-7.78844-4.33788I$	0
$u=\ \ 0.067425+0.771021I$ $a=\ \ 0.297099-0.514777I$ $b=\ \ 0.484580+1.038620I$	$-2.63862+0.46353I$	$-5.02348+0.56989I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.067425 - 0.771021I$ $a = 0.297099 + 0.514777I$ $b = 0.484580 - 1.038620I$	$-2.63862 - 0.46353I$	$-5.02348 - 0.56989I$
$u = -0.718354 + 0.217212I$ $a = 0.54573 + 2.84620I$ $b = -0.124289 - 0.082300I$	$3.34564 + 1.92359I$	$4.88480 - 3.25735I$
$u = -0.718354 - 0.217212I$ $a = 0.54573 - 2.84620I$ $b = -0.124289 + 0.082300I$	$3.34564 - 1.92359I$	$4.88480 + 3.25735I$
$u = -1.173260 + 0.441118I$ $a = -0.721783 + 1.086860I$ $b = 0.503216 + 1.301010I$	$-6.19196 + 3.65772I$	0
$u = -1.173260 - 0.441118I$ $a = -0.721783 - 1.086860I$ $b = 0.503216 - 1.301010I$	$-6.19196 - 3.65772I$	0
$u = 0.732812 + 0.117122I$ $a = 0.61762 + 3.81785I$ $b = -0.562911 - 0.000503I$	$2.00948 - 5.38607I$	$0.87648 + 9.21229I$
$u = 0.732812 - 0.117122I$ $a = 0.61762 - 3.81785I$ $b = -0.562911 + 0.000503I$	$2.00948 + 5.38607I$	$0.87648 - 9.21229I$
$u = 1.200790 + 0.468762I$ $a = 0.39439 + 1.82813I$ $b = -0.87218 + 1.73127I$	$-5.97730 - 5.00488I$	0
$u = 1.200790 - 0.468762I$ $a = 0.39439 - 1.82813I$ $b = -0.87218 - 1.73127I$	$-5.97730 + 5.00488I$	0
$u = -0.292462 + 1.287080I$ $a = 0.0359230 + 0.0289302I$ $b = 0.490682 - 0.544345I$	$5.70942 - 3.91863I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.292462-1.287080I$ $a=0.0359230-0.0289302I$ $b=0.490682+0.544345I$	$5.70942+3.91863I$	0
$u=1.321070+0.205270I$ $a=0.518107+0.965534I$ $b=0.299075+0.939881I$	$-2.22242+0.26262I$	0
$u=1.321070-0.205270I$ $a=0.518107-0.965534I$ $b=0.299075-0.939881I$	$-2.22242-0.26262I$	0
$u=0.653096+0.066511I$ $a=-0.12139-3.51471I$ $b=-0.23429-1.62481I$	$3.15315+1.04728I$	$0.79658+2.16290I$
$u=0.653096-0.066511I$ $a=-0.12139+3.51471I$ $b=-0.23429+1.62481I$	$3.15315-1.04728I$	$0.79658-2.16290I$
$u=0.432935+1.283790I$ $a=-0.0001777+0.0483511I$ $b=0.408222+0.427912I$	$5.48099-2.85596I$	0
$u=0.432935-1.283790I$ $a=-0.0001777-0.0483511I$ $b=0.408222-0.427912I$	$5.48099+2.85596I$	0
$u=-1.288010+0.429164I$ $a=0.08759-1.66290I$ $b=-0.86600-1.60130I$	$-6.44473+8.52384I$	0
$u=-1.288010-0.429164I$ $a=0.08759+1.66290I$ $b=-0.86600+1.60130I$	$-6.44473-8.52384I$	0
$u=1.308160+0.451778I$ $a=-0.23493-1.66336I$ $b=0.674764-0.977248I$	$-8.84452-6.89816I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.308160 - 0.451778I$ $a = -0.23493 + 1.66336I$ $b = 0.674764 + 0.977248I$	$-8.84452 + 6.89816I$	0
$u = -1.265070 + 0.578212I$ $a = -0.29802 + 1.68627I$ $b = 1.02271 + 1.20191I$	$-0.00629 + 10.46180I$	0
$u = -1.265070 - 0.578212I$ $a = -0.29802 - 1.68627I$ $b = 1.02271 - 1.20191I$	$-0.00629 - 10.46180I$	0
$u = 1.145180 + 0.810913I$ $a = -0.537461 - 0.250754I$ $b = 0.206115 - 0.610312I$	$-4.12923 - 3.49768I$	0
$u = 1.145180 - 0.810913I$ $a = -0.537461 + 0.250754I$ $b = 0.206115 + 0.610312I$	$-4.12923 + 3.49768I$	0
$u = -1.32759 + 0.49541I$ $a = 0.471694 - 0.971427I$ $b = 0.049646 - 0.822741I$	$-8.48967 + 3.58712I$	0
$u = -1.32759 - 0.49541I$ $a = 0.471694 + 0.971427I$ $b = 0.049646 + 0.822741I$	$-8.48967 - 3.58712I$	0
$u = 1.28750 + 0.59866I$ $a = -0.32528 - 1.68556I$ $b = 1.04022 - 1.38210I$	$-1.6142 - 17.4772I$	0
$u = 1.28750 - 0.59866I$ $a = -0.32528 + 1.68556I$ $b = 1.04022 + 1.38210I$	$-1.6142 + 17.4772I$	0
$u = 1.26826 + 0.66463I$ $a = 0.192837 + 1.075850I$ $b = -0.725906 + 0.774174I$	$2.53546 - 3.85500I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.26826 - 0.66463I$ $a = 0.192837 - 1.075850I$ $b = -0.725906 - 0.774174I$	$2.53546 + 3.85500I$	0
$u = -1.31123 + 0.64609I$ $a = 0.141360 - 1.157090I$ $b = -0.900210 - 0.930002I$	$2.31383 + 10.55020I$	0
$u = -1.31123 - 0.64609I$ $a = 0.141360 + 1.157090I$ $b = -0.900210 + 0.930002I$	$2.31383 - 10.55020I$	0
$u = -1.44827 + 0.26724I$ $a = 0.569007 - 0.898870I$ $b = 0.173628 - 1.081180I$	$-3.88688 - 6.49441I$	0
$u = -1.44827 - 0.26724I$ $a = 0.569007 + 0.898870I$ $b = 0.173628 + 1.081180I$	$-3.88688 + 6.49441I$	0
$u = -0.226617 + 0.468851I$ $a = 0.532408 + 0.145971I$ $b = -0.770904 + 0.234672I$	$1.33771 - 0.68942I$	$4.64648 + 2.14547I$
$u = -0.226617 - 0.468851I$ $a = 0.532408 - 0.145971I$ $b = -0.770904 - 0.234672I$	$1.33771 + 0.68942I$	$4.64648 - 2.14547I$
$u = 1.38519 + 0.52829I$ $a = -0.284381 - 0.699179I$ $b = 0.536502 - 0.899083I$	$-5.58988 - 1.94882I$	0
$u = 1.38519 - 0.52829I$ $a = -0.284381 + 0.699179I$ $b = 0.536502 + 0.899083I$	$-5.58988 + 1.94882I$	0
$u = 0.266065 + 0.425883I$ $a = -0.107061 - 0.684637I$ $b = 0.994346 + 0.897178I$	$-3.79640 + 3.24219I$	$1.33253 - 6.90690I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.266065 - 0.425883I$ $a = -0.107061 + 0.684637I$ $b = 0.994346 - 0.897178I$	$-3.79640 - 3.24219I$	$1.33253 + 6.90690I$
$u = -0.461999 + 0.137703I$ $a = -0.55449 - 4.06412I$ $b = -0.95206 - 1.17692I$	$2.52847 - 4.86988I$	$0.68932 + 3.57290I$
$u = -0.461999 - 0.137703I$ $a = -0.55449 + 4.06412I$ $b = -0.95206 + 1.17692I$	$2.52847 + 4.86988I$	$0.68932 - 3.57290I$
$u = 0.444794$ $a = 1.20457$ $b = 0.334194$	-0.893023	-11.8990
$u = -0.281808 + 0.282040I$ $a = -3.25034 + 2.48063I$ $b = -0.383383 + 1.128520I$	$2.45411 + 4.85708I$	$-1.43472 - 4.65944I$
$u = -0.281808 - 0.282040I$ $a = -3.25034 - 2.48063I$ $b = -0.383383 - 1.128520I$	$2.45411 - 4.85708I$	$-1.43472 + 4.65944I$
$u = 0.049162 + 0.316034I$ $a = 3.93033 + 1.03578I$ $b = -0.621384 + 0.825063I$	$3.21443 - 1.34550I$	$-0.662189 + 0.967949I$
$u = 0.049162 - 0.316034I$ $a = 3.93033 - 1.03578I$ $b = -0.621384 - 0.825063I$	$3.21443 + 1.34550I$	$-0.662189 - 0.967949I$

II. $\boldsymbol{I_2^u = \langle 1.87\times 10^9 u^{24}+1.44\times 10^9 u^{23}+\cdots+1.04\times 10^9 b+1.21\times 10^9,\ 7.58\times 10^9 u^{24}+8.35\times 10^9 u^{23}+\cdots+1.04\times 10^9 a-1.14\times 10^9,\ u^{25}+u^{24}+\cdots-9u^2+1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} -7.25512u^{24} - 7.98721u^{23} + \cdots + 15.1067u + 1.08778 \\ -1.78883u^{24} - 1.38229u^{23} + \cdots + 5.47091u - 1.16197 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -2.57414u^{24} - 1.92385u^{23} + \cdots + 1.53371u - 1.13863 \\ -2.04043u^{24} - 2.52877u^{23} + \cdots + 4.16946u + 1.11111 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 7.70126u^{24} + 9.77263u^{23} + \cdots - 12.3665u - 2.45011 \\ 1.70277u^{24} + 1.73655u^{23} + \cdots - 5.81111u - 0.867342 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -5.46629u^{24} - 6.60492u^{23} + \cdots + 9.63575u + 2.24974 \\ -1.78883u^{24} - 1.38229u^{23} + \cdots + 5.47091u - 1.16197 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1.98092u^{24} + 1.77523u^{23} + \cdots - 5.14453u + 2.08948 \\ 2.29891u^{24} + 3.07612u^{23} + \cdots - 4.27983u + 0.428471 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.848337u^{24} - 2.13582u^{23} + \cdots - 4.50417u + 3.03862 \\ -1.46461u^{24} - 1.79225u^{23} + \cdots - 1.45519u + 2.81087 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -4.57233u^{24} - 5.28203u^{23} + \cdots + 10.4764u + 1.24609 \\ -2.91957u^{24} - 2.51470u^{23} + \cdots + 7.41840u - 1.34267 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -7.59277u^{24} - 8.77943u^{23} + \cdots + 13.4650u + 2.33155 \\ -0.905181u^{24} - 0.451007u^{23} + \cdots + 3.76813u - 1.19574 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{4028605052}{1044856181}u^{24} - \frac{822387329}{1044856181}u^{23} + \cdots - \frac{24905195484}{1044856181}u + \frac{3560291843}{1044856181}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{25} - 3u^{24} + \cdots - 57u - 19$
c_2	$u^{25} + 3u^{24} + \cdots - 3u - 1$
c_3	$u^{25} - u^{24} + \cdots + 9u^2 - 1$
c_4	$u^{25} + 7u^{23} + \cdots + 6u + 1$
c_5	$u^{25} - 3u^{24} + \cdots - 3u + 1$
c_6	$u^{25} - u^{24} + \cdots + 4499u + 1921$
c_7	$u^{25} + 2u^{24} + \cdots + 30u^2 + 4$
c_8	$u^{25} + u^{24} + \cdots - 9u^2 + 1$
c_9	$u^{25} + u^{24} + \cdots + 5u + 1$
c_{10}	$u^{25} - 2u^{24} + \cdots - 30u^2 - 4$
c_{11}	$u^{25} + 7u^{23} + \cdots + 6u - 1$
c_{12}	$u^{25} - u^{24} + \cdots - 8u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{25} + 9y^{24} + \cdots + 7125y - 361$
c_2, c_5	$y^{25} - 15y^{24} + \cdots + 21y - 1$
c_3, c_8	$y^{25} - 13y^{24} + \cdots + 18y - 1$
c_4, c_{11}	$y^{25} + 14y^{24} + \cdots + 22y - 1$
c_6	$y^{25} - 9y^{24} + \cdots + 20698199y - 3690241$
c_7, c_{10}	$y^{25} + 20y^{24} + \cdots - 240y - 16$
c_9	$y^{25} + 9y^{24} + \cdots + 13y - 1$
c_{12}	$y^{25} + 9y^{24} + \cdots + 14y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.234832 + 0.980599I$ $a = 0.113084 - 0.195544I$ $b = 0.430137 - 0.760335I$	$-5.36225 - 1.81528I$	$-11.14207 + 2.80882I$
$u = 0.234832 - 0.980599I$ $a = 0.113084 + 0.195544I$ $b = 0.430137 + 0.760335I$	$-5.36225 + 1.81528I$	$-11.14207 - 2.80882I$
$u = -0.971284 + 0.355184I$ $a = -0.182478 + 0.721195I$ $b = -0.710278 + 0.867919I$	$1.56502 + 0.38477I$	$-3.98629 - 1.14117I$
$u = -0.971284 - 0.355184I$ $a = -0.182478 - 0.721195I$ $b = -0.710278 - 0.867919I$	$1.56502 - 0.38477I$	$-3.98629 + 1.14117I$
$u = -0.791573 + 0.708579I$ $a = -0.379901 - 0.027315I$ $b = 0.550284 + 0.588220I$	$-3.41650 + 3.83634I$	$-4.32298 - 9.06491I$
$u = -0.791573 - 0.708579I$ $a = -0.379901 + 0.027315I$ $b = 0.550284 - 0.588220I$	$-3.41650 - 3.83634I$	$-4.32298 + 9.06491I$
$u = 1.084830 + 0.246557I$ $a = 0.272997 + 0.669177I$ $b = -1.038920 - 0.202667I$	$0.11138 - 6.19506I$	$-5.87106 + 5.03614I$
$u = 1.084830 - 0.246557I$ $a = 0.272997 - 0.669177I$ $b = -1.038920 + 0.202667I$	$0.11138 + 6.19506I$	$-5.87106 - 5.03614I$
$u = -0.820492 + 0.144059I$ $a = 0.16494 + 3.06417I$ $b = -0.090017 + 1.131300I$	$2.57334 + 1.82110I$	$-6.56024 - 2.56455I$
$u = -0.820492 - 0.144059I$ $a = 0.16494 - 3.06417I$ $b = -0.090017 - 1.131300I$	$2.57334 - 1.82110I$	$-6.56024 + 2.56455I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.797817 + 0.072151I$ $a = 0.71030 - 3.54945I$ $b = 0.753099 - 0.738416I$	$1.54244 + 4.77194I$	$-8.04443 - 1.46713I$
$u = 0.797817 - 0.072151I$ $a = 0.71030 + 3.54945I$ $b = 0.753099 + 0.738416I$	$1.54244 - 4.77194I$	$-8.04443 + 1.46713I$
$u = 1.140090 + 0.409847I$ $a = 0.21762 + 2.14661I$ $b = -1.05786 + 1.67671I$	$-6.77141 - 6.17736I$	$-11.72137 + 5.36754I$
$u = 1.140090 - 0.409847I$ $a = 0.21762 - 2.14661I$ $b = -1.05786 - 1.67671I$	$-6.77141 + 6.17736I$	$-11.72137 - 5.36754I$
$u = -0.132201 + 1.229250I$ $a = -0.348167 + 0.063763I$ $b = 0.224473 + 0.113667I$	$5.30565 + 3.34682I$	$-6.70479 - 5.10326I$
$u = -0.132201 - 1.229250I$ $a = -0.348167 - 0.063763I$ $b = 0.224473 - 0.113667I$	$5.30565 - 3.34682I$	$-6.70479 + 5.10326I$
$u = -1.284280 + 0.415187I$ $a = 0.17270 - 1.76672I$ $b = -0.655780 - 1.209230I$	$-9.94901 + 6.32105I$	$-12.06541 - 4.15926I$
$u = -1.284280 - 0.415187I$ $a = 0.17270 + 1.76672I$ $b = -0.655780 + 1.209230I$	$-9.94901 - 6.32105I$	$-12.06541 + 4.15926I$
$u = -1.276560 + 0.580001I$ $a = -0.452352 + 0.697964I$ $b = 0.438961 + 1.015770I$	$-5.32473 + 2.19017I$	$-4.47181 - 7.90728I$
$u = -1.276560 - 0.580001I$ $a = -0.452352 - 0.697964I$ $b = 0.438961 - 1.015770I$	$-5.32473 - 2.19017I$	$-4.47181 + 7.90728I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.34269 + 0.53848I$ $a = -0.560270 - 0.911725I$ $b = 0.117614 - 0.935082I$	$-8.97451 - 4.05370I$	$-13.5055 + 5.5208I$
$u = 1.34269 - 0.53848I$ $a = -0.560270 + 0.911725I$ $b = 0.117614 + 0.935082I$	$-8.97451 + 4.05370I$	$-13.5055 - 5.5208I$
$u = 0.376239 + 0.279462I$ $a = 1.132080 - 0.479549I$ $b = 1.046320 + 0.909785I$	$-4.21298 + 2.86749I$	$-8.99392 + 1.95922I$
$u = 0.376239 - 0.279462I$ $a = 1.132080 + 0.479549I$ $b = 1.046320 - 0.909785I$	$-4.21298 - 2.86749I$	$-8.99392 - 1.95922I$
$u = -0.400199$ $a = -1.72110$ $b = -1.01605$	0.0297575	0.779720

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{25}-3u^{24}+\cdots-57u-19)(u^{88}+8u^{86}+\cdots-22991u-4937)$
c_2	$(u^{25}+3u^{24}+\cdots-3u-1)(u^{88}+4u^{87}+\cdots+5u-79)$
c_3	$(u^{25}-u^{24}+\cdots+9u^2-1)(u^{88}+2u^{87}+\cdots-7u^2+1)$
c_4	$(u^{25}+7u^{23}+\cdots+6u+1)(u^{88}+u^{87}+\cdots+43878u-1549)$
c_5	$(u^{25}-3u^{24}+\cdots-3u+1)(u^{88}+4u^{87}+\cdots+5u-79)$
c_6	$(u^{25}-u^{24}+\cdots+4499u+1921)$ $\cdot(u^{88}-2u^{87}+\cdots+2779127u-52466021)$
c_7	$(u^{25}+2u^{24}+\cdots+30u^2+4)(u^{88}+5u^{87}+\cdots-39868u-4364)$
c_8	$(u^{25}+u^{24}+\cdots-9u^2+1)(u^{88}+2u^{87}+\cdots-7u^2+1)$
c_9	$(u^{25}+u^{24}+\cdots+5u+1)(u^{88}-6u^{87}+\cdots-2747u-199)$
c_{10}	$(u^{25}-2u^{24}+\cdots-30u^2-4)(u^{88}+5u^{87}+\cdots-39868u-4364)$
c_{11}	$(u^{25}+7u^{23}+\cdots+6u-1)(u^{88}+u^{87}+\cdots+43878u-1549)$
c_{12}	$(u^{25}-u^{24}+\cdots-8u-1)(u^{88}+2u^{87}+\cdots+4454u-497)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{25}+9y^{24}+\cdots+7125y-361)$ $\cdot(y^{88}+16y^{87}+\cdots+1139448487y+24373969)$
c_2, c_5	$(y^{25}-15y^{24}+\cdots+21y-1)(y^{88}-28y^{87}+\cdots-157709y+6241)$
c_3, c_8	$(y^{25}-13y^{24}+\cdots+18y-1)(y^{88}-50y^{87}+\cdots-14y+1)$
c_4, c_{11}	$(y^{25}+14y^{24}+\cdots+22y-1)$ $\cdot(y^{88}+73y^{87}+\cdots-414362598y+2399401)$
c_6	$(y^{25}-9y^{24}+\cdots+20698199y-3690241)$ $\cdot(y^{88}-54y^{87}+\cdots-10476397554533243y+2752683359572441)$
c_7, c_{10}	$(y^{25}+20y^{24}+\cdots-240y-16)$ $\cdot(y^{88}+51y^{87}+\cdots-245921472y+19044496)$
c_9	$(y^{25}+9y^{24}+\cdots+13y-1)(y^{88}+20y^{87}+\cdots-3705309y+39601)$
c_{12}	$(y^{25}+9y^{24}+\cdots+14y-1)(y^{88}+24y^{87}+\cdots-9443858y+247009)$