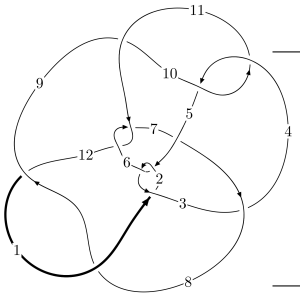
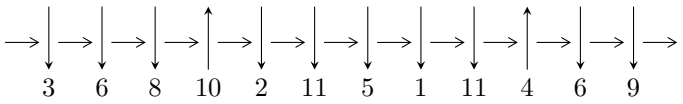
$12n_{0384}$ $(K12n_{0384})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -2.71603 \times 10^{130} u^{78} - 3.34605 \times 10^{130} u^{77} + \cdots + 9.47150 \times 10^{129} b - 1.79777 \times 10^{130}, \\ & - 2.58758 \times 10^{129} u^{78} - 1.91076 \times 10^{130} u^{77} + \cdots + 9.47150 \times 10^{129} a - 5.72706 \times 10^{130}, \\ & u^{79} + 2u^{78} + \cdots + 3u + 1 \rangle \\ I_2^u = \langle & -u^{22} + 6u^{20} + \cdots + b + 1,\ 6u^{22} + 5u^{21} + \cdots + a - 7,\ u^{23} + u^{22} + \cdots - u - 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 102 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. $\boldsymbol{I_1^u = \langle -2.72 \times 10^{130} u^{78} - 3.35 \times 10^{130} u^{77} + \cdots + 9.47 \times 10^{129} b - 1.80 \times 10^{130},\ -2.59 \times 10^{129} u^{78} - 1.91 \times 10^{130} u^{77} + \cdots + 9.47 \times 10^{129} a - 5.73 \times 10^{130},\ u^{79} + 2u^{78} + \cdots + 3u + 1 \rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

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

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

$$a_9 = \begin{pmatrix} 0.273197u^{78} + 2.01738u^{77} + \cdots - 9.55208u + 6.04662 \\ 2.86758u^{78} + 3.53276u^{77} + \cdots + 10.8984u + 1.89808 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.309986u^{78} + 0.455035u^{77} + \cdots - 9.66549u + 3.32245 \\ 2.02383u^{78} + 2.39814u^{77} + \cdots + 8.31238u + 0.949213 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -1.71680u^{78} - 3.26582u^{77} + \cdots - 2.40110u - 5.06109 \\ -2.85920u^{78} - 4.22104u^{77} + \cdots - 9.93888u - 4.06187 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1.43940u^{78} + 3.19611u^{77} + \cdots - 3.75783u + 5.82097 \\ 3.55209u^{78} + 4.65508u^{77} + \cdots + 13.6963u + 2.69004 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1.08140u^{78} + 2.11225u^{77} + \cdots + 8.48887u + 6.87053 \\ 3.83910u^{78} + 5.49216u^{77} + \cdots + 10.2711u + 4.75553 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1.08140u^{78} + 2.11225u^{77} + \cdots + 8.48887u + 6.87053 \\ 3.86348u^{78} + 5.61449u^{77} + \cdots + 11.2009u + 4.70499 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 3.04438u^{78} + 6.01782u^{77} + \cdots - 3.93386u + 5.29498 \\ 0.834964u^{78} + 1.28035u^{77} + \cdots + 7.27458u + 2.68116 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 1.45357u^{78} + 4.69764u^{77} + \cdots - 16.7472u - 8.13507$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{79}+40u^{78}+\cdots+33u+1$
c_2, c_5	$u^{79}+2u^{78}+\cdots+3u+1$
c_3	$u^{79}+u^{78}+\cdots+3042u+1971$
c_4, c_{10}	$u^{79}+u^{78}+\cdots+6u^2+1$
c_6, c_{11}	$u^{79}+2u^{78}+\cdots+33033u+2741$
c_7	$u^{79}-u^{78}+\cdots-15955220u+4890941$
c_8, c_{12}	$u^{79}-4u^{78}+\cdots+465u-71$
c_9	$u^{79}+45u^{78}+\cdots-12u-1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{79} + 12y^{78} + \cdots - 27y - 1$
c_2, c_5	$y^{79} - 40y^{78} + \cdots + 33y - 1$
c_3	$y^{79} + 41y^{78} + \cdots - 122003010y - 3884841$
c_4, c_{10}	$y^{79} + 45y^{78} + \cdots - 12y - 1$
c_6, c_{11}	$y^{79} - 62y^{78} + \cdots - 310804037y - 7513081$
c_7	$y^{79} - 43y^{78} + \cdots + 243479110423596y - 23921303865481$
c_8, c_{12}	$y^{79} + 30y^{78} + \cdots + 195635y - 5041$
c_9	$y^{79} - 11y^{78} + \cdots + 72y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.191031+0.984252I$ $a=-0.07978-1.48636I$ $b=\ \ 0.508156-0.260237I$	$-3.18307-0.81586I$	0
$u=-0.191031-0.984252I$ $a=-0.07978+1.48636I$ $b=\ \ 0.508156+0.260237I$	$-3.18307+0.81586I$	0
$u=\ \ 0.772897+0.639352I$ $a=\ \ 1.62485-0.20199I$ $b=\ \ 1.47815-1.36105I$	$3.37009-0.55634I$	0
$u=\ \ 0.772897-0.639352I$ $a=\ \ 1.62485+0.20199I$ $b=\ \ 1.47815+1.36105I$	$3.37009+0.55634I$	0
$u=\ \ 0.279781+0.946093I$ $a=\ \ 0.422327-0.009943I$ $b=\ \ 0.387992-0.507427I$	$4.25236-1.51303I$	0
$u=\ \ 0.279781-0.946093I$ $a=\ \ 0.422327+0.009943I$ $b=\ \ 0.387992+0.507427I$	$4.25236+1.51303I$	0
$u=\ \ 0.347049+0.957087I$ $a=-0.13702-1.41951I$ $b=-0.865084-0.221243I$	$1.35913+5.11137I$	0
$u=\ \ 0.347049-0.957087I$ $a=-0.13702+1.41951I$ $b=-0.865084+0.221243I$	$1.35913-5.11137I$	0
$u=-0.949703+0.369866I$ $a=-1.071130-0.249125I$ $b=\ \ 0.195225-0.520375I$	$1.207890+0.693296I$	0
$u=-0.949703-0.369866I$ $a=-1.071130+0.249125I$ $b=\ \ 0.195225+0.520375I$	$1.207890-0.693296I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.651752 + 0.803645I$ $a = 1.028100 + 0.127820I$ $b = 1.080790 - 0.665746I$	$3.75206 - 1.01538I$	0
$u = 0.651752 - 0.803645I$ $a = 1.028100 - 0.127820I$ $b = 1.080790 + 0.665746I$	$3.75206 + 1.01538I$	0
$u = -0.735451 + 0.763114I$ $a = -1.33628 + 0.71471I$ $b = -1.65988 - 0.43120I$	$1.52896 - 1.89063I$	0
$u = -0.735451 - 0.763114I$ $a = -1.33628 - 0.71471I$ $b = -1.65988 + 0.43120I$	$1.52896 + 1.89063I$	0
$u = -0.390500 + 1.044200I$ $a = 0.23951 - 1.54767I$ $b = 0.954518 - 0.436619I$	$-1.91185 - 10.39900I$	0
$u = -0.390500 - 1.044200I$ $a = 0.23951 + 1.54767I$ $b = 0.954518 + 0.436619I$	$-1.91185 + 10.39900I$	0
$u = 1.110500 + 0.123199I$ $a = -0.360738 - 0.519588I$ $b = 0.355883 - 0.926772I$	$-4.60003 - 2.24012I$	0
$u = 1.110500 - 0.123199I$ $a = -0.360738 + 0.519588I$ $b = 0.355883 + 0.926772I$	$-4.60003 + 2.24012I$	0
$u = 1.032050 + 0.440550I$ $a = -1.155910 + 0.517509I$ $b = -1.324490 + 0.224798I$	$-3.64519 - 2.75689I$	0
$u = 1.032050 - 0.440550I$ $a = -1.155910 - 0.517509I$ $b = -1.324490 - 0.224798I$	$-3.64519 + 2.75689I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.799671+0.338631I$ $a=-1.32453-0.80993I$ $b=-0.78022-2.11425I$	$1.77333+2.34825I$	$-10.56329-4.52984I$
$u=-0.799671-0.338631I$ $a=-1.32453+0.80993I$ $b=-0.78022+2.11425I$	$1.77333-2.34825I$	$-10.56329+4.52984I$
$u=1.075170+0.388500I$ $a=-0.949388+0.662897I$ $b=-1.49346+2.56287I$	$-7.23041+1.32092I$	0
$u=1.075170-0.388500I$ $a=-0.949388-0.662897I$ $b=-1.49346-2.56287I$	$-7.23041-1.32092I$	0
$u=0.983798+0.587300I$ $a=0.261400-0.889339I$ $b=-0.878215-0.255984I$	$2.69035-4.34043I$	0
$u=0.983798-0.587300I$ $a=0.261400+0.889339I$ $b=-0.878215+0.255984I$	$2.69035+4.34043I$	0
$u=-1.047200+0.470329I$ $a=1.121370+0.298241I$ $b=1.64342+2.17778I$	$-3.40305+3.75556I$	0
$u=-1.047200-0.470329I$ $a=1.121370-0.298241I$ $b=1.64342-2.17778I$	$-3.40305-3.75556I$	0
$u=-1.062590+0.466582I$ $a=-0.473431-0.104262I$ $b=-1.77680-0.79310I$	$3.25715+0.42701I$	0
$u=-1.062590-0.466582I$ $a=-0.473431+0.104262I$ $b=-1.77680+0.79310I$	$3.25715-0.42701I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.979155 + 0.659990I$ $a = -0.186768 - 1.044480I$ $b = -1.192080 - 0.090654I$	$2.67066 - 4.41905I$	0
$u = 0.979155 - 0.659990I$ $a = -0.186768 + 1.044480I$ $b = -1.192080 + 0.090654I$	$2.67066 + 4.41905I$	0
$u = -1.068830 + 0.513419I$ $a = 1.238950 + 0.404006I$ $b = 1.59996 + 0.25716I$	$-6.37531 + 8.24596I$	0
$u = -1.068830 - 0.513419I$ $a = 1.238950 - 0.404006I$ $b = 1.59996 - 0.25716I$	$-6.37531 - 8.24596I$	0
$u = 1.088050 + 0.498479I$ $a = 0.566854 - 0.120059I$ $b = 1.81501 - 1.09357I$	$3.49995 - 6.66947I$	0
$u = 1.088050 - 0.498479I$ $a = 0.566854 + 0.120059I$ $b = 1.81501 + 1.09357I$	$3.49995 + 6.66947I$	0
$u = -1.148050 + 0.354073I$ $a = 1.229620 + 0.676225I$ $b = 1.207310 + 0.678030I$	$-8.51556 - 0.93201I$	0
$u = -1.148050 - 0.354073I$ $a = 1.229620 - 0.676225I$ $b = 1.207310 - 0.678030I$	$-8.51556 + 0.93201I$	0
$u = -0.911687 + 0.787204I$ $a = 0.803246 - 0.640191I$ $b = 1.113530 + 0.554256I$	$0.87775 + 2.17137I$	0
$u = -0.911687 - 0.787204I$ $a = 0.803246 + 0.640191I$ $b = 1.113530 - 0.554256I$	$0.87775 - 2.17137I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.971228+0.714175I$ $a=\ \ 0.99212-1.26649I$ $b=\ \ 1.87985+0.21111I$	$0.81093+7.49828I$	0
$u=-0.971228-0.714175I$ $a=\ \ 0.99212+1.26649I$ $b=\ \ 1.87985-0.21111I$	$0.81093-7.49828I$	0
$u=-0.792183$ $a=\ \ 0.614293$ $b=-0.625628$	-1.33059	-6.58480
$u=\ \ 1.107910+0.516873I$ $a=-1.50586+0.31421I$ $b=-2.06147+2.18423I$	$-7.42311-8.62365I$	0
$u=\ \ 1.107910-0.516873I$ $a=-1.50586-0.31421I$ $b=-2.06147-2.18423I$	$-7.42311+8.62365I$	0
$u=\ \ 0.715864+0.277463I$ $a=-1.46137+0.89491I$ $b=-0.541854-0.023836I$	$-2.22862-0.48454I$	$-3.32397+5.38263I$
$u=\ \ 0.715864-0.277463I$ $a=-1.46137-0.89491I$ $b=-0.541854+0.023836I$	$-2.22862+0.48454I$	$-3.32397-5.38263I$
$u=-0.833390+0.940010I$ $a=-0.894586+0.345537I$ $b=-1.165880-0.263330I$	$1.16138+4.13478I$	0
$u=-0.833390-0.940010I$ $a=-0.894586-0.345537I$ $b=-1.165880+0.263330I$	$1.16138-4.13478I$	0
$u=\ \ 1.192740+0.640609I$ $a=\ \ 1.142680-0.139516I$ $b=\ \ 1.93724-1.46494I$	$-1.21826-10.92240I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.192740 - 0.640609I$ $a = 1.142680 + 0.139516I$ $b = 1.93724 + 1.46494I$	$-1.21826 + 10.92240I$	0
$u = 1.109620 + 0.776023I$ $a = -0.529150 - 0.336994I$ $b = -0.961927 + 0.438116I$	$2.08413 - 4.66431I$	0
$u = 1.109620 - 0.776023I$ $a = -0.529150 + 0.336994I$ $b = -0.961927 - 0.438116I$	$2.08413 + 4.66431I$	0
$u = -0.454850 + 0.447099I$ $a = 1.39866 + 2.20652I$ $b = 0.339961 + 0.112299I$	$-4.50604 - 4.04932I$	$-6.45793 + 1.67799I$
$u = -0.454850 - 0.447099I$ $a = 1.39866 - 2.20652I$ $b = 0.339961 - 0.112299I$	$-4.50604 + 4.04932I$	$-6.45793 - 1.67799I$
$u = -1.237660 + 0.581931I$ $a = -1.042670 - 0.390086I$ $b = -1.81279 - 1.57352I$	$-6.38355 + 6.41792I$	0
$u = -1.237660 - 0.581931I$ $a = -1.042670 + 0.390086I$ $b = -1.81279 + 1.57352I$	$-6.38355 - 6.41792I$	0
$u = -0.564621 + 0.284535I$ $a = -0.545059 - 0.268663I$ $b = 0.72095 + 1.66387I$	$5.05746 + 3.12388I$	$-8.19578 + 0.26827I$
$u = -0.564621 - 0.284535I$ $a = -0.545059 + 0.268663I$ $b = 0.72095 - 1.66387I$	$5.05746 - 3.12388I$	$-8.19578 - 0.26827I$
$u = 0.421372 + 0.463446I$ $a = 0.337655 - 0.819391I$ $b = -0.827292 + 1.047940I$	$5.53379 + 2.54054I$	$-4.42930 - 5.76558I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.421372 - 0.463446I$ $a = 0.337655 + 0.819391I$ $b = -0.827292 - 1.047940I$	$5.53379 - 2.54054I$	$-4.42930 + 5.76558I$
$u = -1.359440 + 0.212786I$ $a = -0.770916 - 0.399157I$ $b = -1.080790 - 0.207121I$	$-4.45616 - 1.31756I$	0
$u = -1.359440 - 0.212786I$ $a = -0.770916 + 0.399157I$ $b = -1.080790 + 0.207121I$	$-4.45616 + 1.31756I$	0
$u = -1.275420 + 0.546485I$ $a = -0.0739416 + 0.1149980I$ $b = 0.375729 + 0.413377I$	$-0.12238 + 6.61116I$	0
$u = -1.275420 - 0.546485I$ $a = -0.0739416 - 0.1149980I$ $b = 0.375729 - 0.413377I$	$-0.12238 - 6.61116I$	0
$u = -1.211040 + 0.682574I$ $a = -1.315290 - 0.111684I$ $b = -2.03346 - 1.47490I$	$-4.4575 + 16.6063I$	0
$u = -1.211040 - 0.682574I$ $a = -1.315290 + 0.111684I$ $b = -2.03346 + 1.47490I$	$-4.4575 - 16.6063I$	0
$u = 0.184918 + 0.538457I$ $a = -0.11921 + 3.12712I$ $b = 0.950595 + 0.446805I$	$-5.02903 + 4.28349I$	$-8.27681 - 4.00164I$
$u = 0.184918 - 0.538457I$ $a = -0.11921 - 3.12712I$ $b = 0.950595 - 0.446805I$	$-5.02903 - 4.28349I$	$-8.27681 + 4.00164I$
$u = 1.40099 + 0.34736I$ $a = 0.850459 - 0.324010I$ $b = 1.245410 - 0.267260I$	$-8.36209 - 3.89179I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.40099 - 0.34736I$ $a = 0.850459 + 0.324010I$ $b = 1.245410 + 0.267260I$	$-8.36209 + 3.89179I$	0
$u = 1.47172 + 0.12727I$ $a = 0.789184 - 0.491099I$ $b = 0.972773 - 0.381657I$	$-8.61435 + 6.30190I$	0
$u = 1.47172 - 0.12727I$ $a = 0.789184 + 0.491099I$ $b = 0.972773 + 0.381657I$	$-8.61435 - 6.30190I$	0
$u = -0.373652 + 0.265576I$ $a = 1.88378 + 1.55663I$ $b = -0.941910 + 0.210297I$	$-1.53987 - 0.04744I$	$-5.18898 - 0.81135I$
$u = -0.373652 - 0.265576I$ $a = 1.88378 - 1.55663I$ $b = -0.941910 - 0.210297I$	$-1.53987 + 0.04744I$	$-5.18898 + 0.81135I$
$u = -0.280943 + 0.315261I$ $a = 0.413918 - 0.655502I$ $b = -0.145072 + 0.373722I$	$-0.455090 + 0.991741I$	$-7.13691 - 6.73727I$
$u = -0.280943 - 0.315261I$ $a = 0.413918 + 0.655502I$ $b = -0.145072 - 0.373722I$	$-0.455090 - 0.991741I$	$-7.13691 + 6.73727I$
$u = 0.337723 + 0.070804I$ $a = -4.81881 - 0.75247I$ $b = 1.093010 + 0.305232I$	$-4.84439 - 4.25943I$	$-6.45155 + 7.25445I$
$u = 0.337723 - 0.070804I$ $a = -4.81881 + 0.75247I$ $b = 1.093010 - 0.305232I$	$-4.84439 + 4.25943I$	$-6.45155 - 7.25445I$

II.

$\boldsymbol{I_2^u = \langle -u^{22}+6u^{20}+\cdots+b+1,\ 6u^{22}+5u^{21}+\cdots+a-7,\ u^{23}+u^{22}+\cdots-u-1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

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

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

$$a_9 = \begin{pmatrix} -6u^{22}-5u^{21}+\cdots-13u+7 \\ u^{22}-6u^{20}+\cdots+4u-1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -7u^{22}-5u^{21}+\cdots-13u+8 \\ u^{22}+u^{21}+\cdots+5u-1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 6u^{22}+u^{21}+\cdots+6u-13 \\ -u^{22}+7u^{20}+\cdots-u+5 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -5u^{22}-4u^{21}+\cdots-9u+6 \\ 2u^{22}+u^{21}+\cdots+8u-2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} u^{22}-7u^{20}+\cdots+u-6 \\ -3u^{22}-u^{21}+\cdots-u+2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^{22}-7u^{20}+\cdots+u-6 \\ -3u^{22}-u^{21}+\cdots-u+3 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 4u^{22}-25u^{20}+\cdots-4u-8 \\ -4u^{22}-2u^{21}+\cdots-4u+4 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes

$= -5u^{22}-u^{21}+29u^{20}+10u^{19}-87u^{18}-44u^{17}+168u^{16}+116u^{15}-205u^{14}-199u^{13}+147u^{12}+231u^{11}-22u^{10}-175u^9-78u^8+88u^7+89u^6-23u^5-82u^4+u^3+34u^2+6u-21$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{23} - 13u^{22} + \cdots + 13u - 1$
c_2	$u^{23} + u^{22} + \cdots - u - 1$
c_3	$u^{23} + 10u^{21} + \cdots - 2u + 1$
c_4	$u^{23} + 6u^{21} + \cdots - 2u + 1$
c_5	$u^{23} - u^{22} + \cdots - u + 1$
c_6	$u^{23} + u^{22} + \cdots + 3u - 1$
c_7	$u^{23} + 8u^{22} + \cdots + 88u - 29$
c_8	$u^{23} - 3u^{22} + \cdots - u - 1$
c_9	$u^{23} - 12u^{22} + \cdots - 8u + 1$
c_{10}	$u^{23} + 6u^{21} + \cdots - 2u - 1$
c_{11}	$u^{23} - u^{22} + \cdots + 3u + 1$
c_{12}	$u^{23} + 3u^{22} + \cdots - u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{23} + 7y^{22} + \cdots + y - 1$
c_2, c_5	$y^{23} - 13y^{22} + \cdots + 13y - 1$
c_3	$y^{23} + 20y^{22} + \cdots + 10y - 1$
c_4, c_{10}	$y^{23} + 12y^{22} + \cdots - 8y - 1$
c_6, c_{11}	$y^{23} - 3y^{22} + \cdots - 13y - 1$
c_7	$y^{23} - 4y^{22} + \cdots + 6932y - 841$
c_8, c_{12}	$y^{23} + 13y^{22} + \cdots + 3y - 1$
c_9	$y^{23} + 8y^{22} + \cdots - 20y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.630015+0.671543I$ $a=-1.101100-0.648550I$ $b=-0.787291-1.066420I$	$3.03165+1.75887I$	$-5.37226-4.25162I$
$u=-0.630015-0.671543I$ $a=-1.101100+0.648550I$ $b=-0.787291+1.066420I$	$3.03165-1.75887I$	$-5.37226+4.25162I$
$u=-0.703790+0.560880I$ $a=-0.759261-0.016715I$ $b=-1.48162-1.22442I$	$5.66183-1.58895I$	$-3.77306-1.87293I$
$u=-0.703790-0.560880I$ $a=-0.759261+0.016715I$ $b=-1.48162+1.22442I$	$5.66183+1.58895I$	$-3.77306+1.87293I$
$u=0.683964+0.525529I$ $a=0.834493+0.206624I$ $b=1.36447-1.51147I$	$5.48484-3.77860I$	$-1.97875+8.09859I$
$u=0.683964-0.525529I$ $a=0.834493-0.206624I$ $b=1.36447+1.51147I$	$5.48484+3.77860I$	$-1.97875-8.09859I$
$u=-1.028450+0.586506I$ $a=0.304336-0.402419I$ $b=1.49026+0.57590I$	$4.57388+6.19775I$	$-2.54557-5.78029I$
$u=-1.028450-0.586506I$ $a=0.304336+0.402419I$ $b=1.49026-0.57590I$	$4.57388-6.19775I$	$-2.54557+5.78029I$
$u=0.555768+0.587883I$ $a=1.73648-0.26772I$ $b=0.85591-1.39940I$	$2.69979+0.58598I$	$-5.35829-1.83822I$
$u=0.555768-0.587883I$ $a=1.73648+0.26772I$ $b=0.85591+1.39940I$	$2.69979-0.58598I$	$-5.35829+1.83822I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 1.19937$ $a = -0.945216$ $b = -1.42356$	-4.32657	-8.14410
$u = \ 1.068020 + 0.552527I$ $a = -0.408803 - 0.365019I$ $b = -1.69043 + 0.28063I$	$4.17503 - 0.60896I$	$-2.10463 + 1.64469I$
$u = \ 1.068020 - 0.552527I$ $a = -0.408803 + 0.365019I$ $b = -1.69043 - 0.28063I$	$4.17503 + 0.60896I$	$-2.10463 - 1.64469I$
$u = \ 0.788674 + 0.067096I$ $a = -1.48138 + 0.33372I$ $b = -0.172278 - 0.318918I$	$-2.75839 - 0.11417I$	$-14.8732 - 1.6726I$
$u = \ 0.788674 - 0.067096I$ $a = -1.48138 - 0.33372I$ $b = -0.172278 + 0.318918I$	$-2.75839 + 0.11417I$	$-14.8732 + 1.6726I$
$u = -1.005100 + 0.714546I$ $a = \ 0.195177 - 0.672441I$ $b = \ 0.742299 + 0.187174I$	$1.87325 + 3.71014I$	$-7.78117 - 0.19469I$
$u = -1.005100 - 0.714546I$ $a = \ 0.195177 + 0.672441I$ $b = \ 0.742299 - 0.187174I$	$1.87325 - 3.71014I$	$-7.78117 + 0.19469I$
$u = -1.317790 + 0.141803I$ $a = \ 0.975113 - 0.086775I$ $b = \ 1.58510 - 0.13198I$	$-8.17918 + 4.97937I$	$-9.94257 - 4.19770I$
$u = -1.317790 - 0.141803I$ $a = \ 0.975113 + 0.086775I$ $b = \ 1.58510 + 0.13198I$	$-8.17918 - 4.97937I$	$-9.94257 + 4.19770I$
$u = \ 1.122650 + 0.733553I$ $a = -0.430102 - 0.732478I$ $b = -1.094530 - 0.126237I$	$0.80767 - 5.93220I$	$-6.48253 + 6.21918I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.122650 - 0.733553I$ $a = -0.430102 + 0.732478I$ $b = -1.094530 + 0.126237I$	$0.80767 + 5.93220I$	$-6.48253 - 6.21918I$
$u = -0.633614 + 0.085095I$ $a = 2.60765 + 1.19886I$ $b = -0.600096 - 0.438844I$	$-5.33748 - 3.98481I$	$-19.7159 + 1.1614I$
$u = -0.633614 - 0.085095I$ $a = 2.60765 - 1.19886I$ $b = -0.600096 + 0.438844I$	$-5.33748 + 3.98481I$	$-19.7159 - 1.1614I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{23}-13u^{22}+\cdots+13u-1)(u^{79}+40u^{78}+\cdots+33u+1)$
c_2	$(u^{23}+u^{22}+\cdots-u-1)(u^{79}+2u^{78}+\cdots+3u+1)$
c_3	$(u^{23}+10u^{21}+\cdots-2u+1)(u^{79}+u^{78}+\cdots+3042u+1971)$
c_4	$(u^{23}+6u^{21}+\cdots-2u+1)(u^{79}+u^{78}+\cdots+6u^2+1)$
c_5	$(u^{23}-u^{22}+\cdots-u+1)(u^{79}+2u^{78}+\cdots+3u+1)$
c_6	$(u^{23}+u^{22}+\cdots+3u-1)(u^{79}+2u^{78}+\cdots+33033u+2741)$
c_7	$(u^{23}+8u^{22}+\cdots+88u-29)$ $\cdot(u^{79}-u^{78}+\cdots-15955220u+4890941)$
c_8	$(u^{23}-3u^{22}+\cdots-u-1)(u^{79}-4u^{78}+\cdots+465u-71)$
c_9	$(u^{23}-12u^{22}+\cdots-8u+1)(u^{79}+45u^{78}+\cdots-12u-1)$
c_{10}	$(u^{23}+6u^{21}+\cdots-2u-1)(u^{79}+u^{78}+\cdots+6u^2+1)$
c_{11}	$(u^{23}-u^{22}+\cdots+3u+1)(u^{79}+2u^{78}+\cdots+33033u+2741)$
c_{12}	$(u^{23}+3u^{22}+\cdots-u+1)(u^{79}-4u^{78}+\cdots+465u-71)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{23}+7y^{22}+\cdots+y-1)(y^{79}+12y^{78}+\cdots-27y-1)$
c_2, c_5	$(y^{23}-13y^{22}+\cdots+13y-1)(y^{79}-40y^{78}+\cdots+33y-1)$
c_3	$(y^{23}+20y^{22}+\cdots+10y-1)$ $\cdot(y^{79}+41y^{78}+\cdots-122003010y-3884841)$
c_4, c_{10}	$(y^{23}+12y^{22}+\cdots-8y-1)(y^{79}+45y^{78}+\cdots-12y-1)$
c_6, c_{11}	$(y^{23}-3y^{22}+\cdots-13y-1)$ $\cdot(y^{79}-62y^{78}+\cdots-310804037y-7513081)$
c_7	$(y^{23}-4y^{22}+\cdots+6932y-841)$ $\cdot(y^{79}-43y^{78}+\cdots+243479110423596y-23921303865481)$
c_8, c_{12}	$(y^{23}+13y^{22}+\cdots+3y-1)(y^{79}+30y^{78}+\cdots+195635y-5041)$
c_9	$(y^{23}+8y^{22}+\cdots-20y-1)(y^{79}-11y^{78}+\cdots+72y-1)$