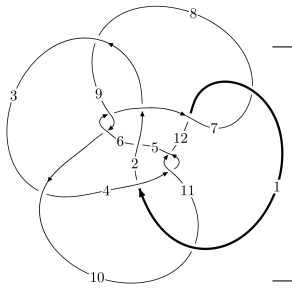
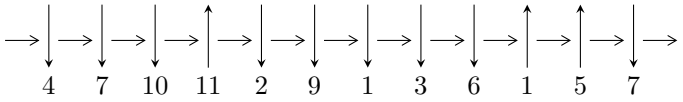
$12n_{0862}$ $(K12n_{0862})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -4.13423 \times 10^{545} u^{98} - 8.41031 \times 10^{545} u^{97} + \cdots + 7.71729 \times 10^{546} b - 9.78140 \times 10^{546},$$
$$5.62354 \times 10^{545} u^{98} + 8.39082 \times 10^{545} u^{97} + \cdots + 7.71729 \times 10^{546} a - 1.14457 \times 10^{547},\ u^{99} + 2u^{98} + \cdots - 14u$$
$$I_2^u = \langle 1.44391 \times 10^{37} u^{35} - 2.21652 \times 10^{37} u^{34} + \cdots + 7.10926 \times 10^{36} b - 1.15603 \times 10^{37},$$
$$- 2.43176 \times 10^{37} u^{35} + 4.52865 \times 10^{37} u^{34} + \cdots + 7.10926 \times 10^{36} a - 4.98348 \times 10^{37},\ u^{36} - u^{35} + \cdots - 2u -$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 135 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. $\boldsymbol{I_1^u = \langle -4.13 \times 10^{545} u^{98} - 8.41 \times 10^{545} u^{97} + \cdots + 7.72 \times 10^{546} b - 9.78 \times 10^{546},\ 5.62 \times 10^{545} u^{98} + 8.39 \times 10^{545} u^{97} + \cdots + 7.72 \times 10^{546} a - 1.14 \times 10^{547},\ u^{99} + 2u^{98} + \cdots - 14u - 1 \rangle}$

(i) Arc colorings

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

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

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

$$a_5 = \begin{pmatrix} -0.0728693u^{98} - 0.108728u^{97} + \cdots - 13.0659u + 1.48313 \\ 0.0535710u^{98} + 0.108980u^{97} + \cdots - 0.601675u + 1.26747 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.0740548u^{98} + 0.178821u^{97} + \cdots - 11.5713u + 4.30161 \\ 0.0862112u^{98} + 0.164238u^{97} + \cdots + 2.60025u + 1.58172 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.334497u^{98} - 0.626075u^{97} + \cdots - 12.9486u - 5.18044 \\ -0.0392665u^{98} - 0.0482840u^{97} + \cdots - 9.63437u - 0.506867 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.0956699u^{98} - 0.257464u^{97} + \cdots + 10.1109u - 5.80856 \\ 0.00747297u^{98} + 0.0566310u^{97} + \cdots - 21.3422u - 3.34556 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.0956699u^{98} - 0.257464u^{97} + \cdots + 10.1109u - 5.80856 \\ 0.0249836u^{98} + 0.0918021u^{97} + \cdots - 22.3636u - 3.41168 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.787689u^{98} + 1.52752u^{97} + \cdots - 69.5405u - 9.45597 \\ 0.0462208u^{98} + 0.110462u^{97} + \cdots - 15.8136u - 2.79226 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.0192983u^{98} + 0.000252513u^{97} + \cdots - 13.6676u + 2.75060 \\ 0.0886812u^{98} + 0.169088u^{97} + \cdots + 2.62084u + 1.58986 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.509611u^{98} + 0.950444u^{97} + \cdots - 68.2325u + 2.11639 \\ 0.396273u^{98} + 0.765808u^{97} + \cdots - 26.1751u - 0.792660 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.730846u^{98} - 1.26329u^{97} + \cdots - 88.2611u - 10.4029$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{99}+8u^{98}+\cdots+36u-5$
c_2	$u^{99}-u^{98}+\cdots-20407938u-31437685$
c_3	$u^{99}-2u^{98}+\cdots-309043u+44933$
c_4, c_{11}	$u^{99}+2u^{98}+\cdots+66361u+6341$
c_5	$u^{99}-3u^{98}+\cdots-439231u-28927$
c_6, c_9	$u^{99}-5u^{98}+\cdots-544u+88$
c_7, c_{12}	$u^{99}+2u^{98}+\cdots-14u-1$
c_8	$u^{99}+u^{98}+\cdots+1415210u-900451$
c_{10}	$u^{99}+6u^{98}+\cdots-11704u+191$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{99} - 10y^{98} + \cdots - 294y - 25$
c_2	$y^{99} + 41y^{98} + \cdots - 24026013786433826y - 988328038159225$
c_3	$y^{99} + 10y^{98} + \cdots - 1343708331y - 2018974489$
c_4, c_{11}	$y^{99} - 90y^{98} + \cdots + 1567376929y - 40208281$
c_5	$y^{99} + 47y^{98} + \cdots + 82222035835y - 836771329$
c_6, c_9	$y^{99} + 59y^{98} + \cdots - 190880y - 7744$
c_7, c_{12}	$y^{99} + 88y^{98} + \cdots - 138y - 1$
c_8	$y^{99} + 33y^{98} + \cdots - 28122811583158y - 810812003401$
c_{10}	$y^{99} - 46y^{98} + \cdots + 118391676y - 36481$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.841907 + 0.665859I$ $a = -0.480654 - 1.217040I$ $b = 1.174250 - 0.039744I$	$2.49130 - 4.74543I$	0
$u = 0.841907 - 0.665859I$ $a = -0.480654 + 1.217040I$ $b = 1.174250 + 0.039744I$	$2.49130 + 4.74543I$	0
$u = -0.558882 + 0.663005I$ $a = -0.546261 - 1.222320I$ $b = 0.502565 + 0.043849I$	$0.13656 + 4.34462I$	0
$u = -0.558882 - 0.663005I$ $a = -0.546261 + 1.222320I$ $b = 0.502565 - 0.043849I$	$0.13656 - 4.34462I$	0
$u = -0.131669 + 1.135030I$ $a = 0.223696 - 0.439525I$ $b = -0.458676 + 0.424837I$	$2.27045 + 1.29976I$	0
$u = -0.131669 - 1.135030I$ $a = 0.223696 + 0.439525I$ $b = -0.458676 - 0.424837I$	$2.27045 - 1.29976I$	0
$u = -1.138660 + 0.274741I$ $a = 0.737094 - 0.887941I$ $b = 0.330996 - 0.935799I$	$-2.60891 + 0.42160I$	0
$u = -1.138660 - 0.274741I$ $a = 0.737094 + 0.887941I$ $b = 0.330996 + 0.935799I$	$-2.60891 - 0.42160I$	0
$u = 0.025254 + 1.180590I$ $a = 0.307410 + 0.482375I$ $b = -0.329710 - 0.747157I$	$3.11063 - 2.43594I$	0
$u = 0.025254 - 1.180590I$ $a = 0.307410 - 0.482375I$ $b = -0.329710 + 0.747157I$	$3.11063 + 2.43594I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.806800 + 0.101225I$ $a = 2.51629 - 0.95511I$ $b = 0.383951 - 0.268064I$	$-0.33641 - 6.65531I$	0
$u = 0.806800 - 0.101225I$ $a = 2.51629 + 0.95511I$ $b = 0.383951 + 0.268064I$	$-0.33641 + 6.65531I$	0
$u = 1.130000 + 0.503781I$ $a = -0.02556 - 1.90378I$ $b = 0.912448 - 0.703140I$	$-0.94367 - 6.59640I$	0
$u = 1.130000 - 0.503781I$ $a = -0.02556 + 1.90378I$ $b = 0.912448 + 0.703140I$	$-0.94367 + 6.59640I$	0
$u = -0.749780$ $a = 3.85347$ $b = 0.507829$	-4.28603	0
$u = -0.172092 + 1.243830I$ $a = -0.174890 - 0.489493I$ $b = -0.361805 - 0.145036I$	$2.59575 + 2.23609I$	0
$u = -0.172092 - 1.243830I$ $a = -0.174890 + 0.489493I$ $b = -0.361805 + 0.145036I$	$2.59575 - 2.23609I$	0
$u = 0.734114$ $a = -2.17128$ $b = 0.731388$	-2.34784	0
$u = -0.678779 + 0.269082I$ $a = 1.23135 + 0.81607I$ $b = 1.272410 - 0.203025I$	$-0.912418 - 0.160739I$	0
$u = -0.678779 - 0.269082I$ $a = 1.23135 - 0.81607I$ $b = 1.272410 + 0.203025I$	$-0.912418 + 0.160739I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.275020 + 0.163285I$ $a = -0.897049 + 0.290257I$ $b = 0.813600 + 0.085835I$	$-3.31462 - 1.01409I$	0
$u = 1.275020 - 0.163285I$ $a = -0.897049 - 0.290257I$ $b = 0.813600 - 0.085835I$	$-3.31462 + 1.01409I$	0
$u = 0.366152 + 0.612502I$ $a = 0.495378 + 0.200281I$ $b = -0.961051 + 0.092169I$	$3.17315 + 0.57771I$	0
$u = 0.366152 - 0.612502I$ $a = 0.495378 - 0.200281I$ $b = -0.961051 - 0.092169I$	$3.17315 - 0.57771I$	0
$u = 0.320047 + 0.620159I$ $a = 0.497009 - 0.267226I$ $b = -0.981853 - 0.461824I$	$1.49843 + 1.71620I$	0
$u = 0.320047 - 0.620159I$ $a = 0.497009 + 0.267226I$ $b = -0.981853 + 0.461824I$	$1.49843 - 1.71620I$	0
$u = -1.364920 + 0.022663I$ $a = -0.660886 + 0.261525I$ $b = 0.914002 + 0.084661I$	$-2.92110 + 1.72300I$	0
$u = -1.364920 - 0.022663I$ $a = -0.660886 - 0.261525I$ $b = 0.914002 - 0.084661I$	$-2.92110 - 1.72300I$	0
$u = -0.077138 + 1.372770I$ $a = 0.091199 - 0.752761I$ $b = -0.705516 - 0.513272I$	$2.36200 + 2.20848I$	0
$u = -0.077138 - 1.372770I$ $a = 0.091199 + 0.752761I$ $b = -0.705516 + 0.513272I$	$2.36200 - 2.20848I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.115603 + 1.381960I$ $a = 0.71542 + 1.29686I$ $b = -1.037720 + 0.412533I$	$7.34093 - 7.61660I$	0
$u = 0.115603 - 1.381960I$ $a = 0.71542 - 1.29686I$ $b = -1.037720 - 0.412533I$	$7.34093 + 7.61660I$	0
$u = -1.390590 + 0.253299I$ $a = 0.504938 - 0.165887I$ $b = -1.340510 - 0.191286I$	$7.70793 - 0.30774I$	0
$u = -1.390590 - 0.253299I$ $a = 0.504938 + 0.165887I$ $b = -1.340510 + 0.191286I$	$7.70793 + 0.30774I$	0
$u = 0.34035 + 1.37755I$ $a = -0.206775 + 0.498668I$ $b = -0.096627 + 0.445266I$	$6.77160 - 6.21356I$	0
$u = 0.34035 - 1.37755I$ $a = -0.206775 - 0.498668I$ $b = -0.096627 - 0.445266I$	$6.77160 + 6.21356I$	0
$u = -0.526678$ $a = 0.943179$ $b = 0.689513$	-0.952013	-10.9550
$u = 0.35927 + 1.43517I$ $a = 0.373171 - 0.175529I$ $b = -0.178657 + 1.370660I$	$7.48264 - 0.43702I$	0
$u = 0.35927 - 1.43517I$ $a = 0.373171 + 0.175529I$ $b = -0.178657 - 1.370660I$	$7.48264 + 0.43702I$	0
$u = 0.487130 + 0.161889I$ $a = 2.74918 - 1.16574I$ $b = 1.359750 - 0.032280I$	$3.15153 + 5.69737I$	$0.323090 - 1.093045I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.487130 - 0.161889I$ $a = 2.74918 + 1.16574I$ $b = 1.359750 + 0.032280I$	$3.15153 - 5.69737I$	$0.323090 + 1.093045I$
$u = 0.503721 + 0.078772I$ $a = 1.59142 - 0.27337I$ $b = 0.217966 - 0.535658I$	$2.94519 + 2.79350I$	$-5.37825 - 2.60185I$
$u = 0.503721 - 0.078772I$ $a = 1.59142 + 0.27337I$ $b = 0.217966 + 0.535658I$	$2.94519 - 2.79350I$	$-5.37825 + 2.60185I$
$u = -0.283860 + 0.380766I$ $a = 1.212560 + 0.571324I$ $b = 0.640597 - 0.599069I$	$-1.100560 - 0.006892I$	$-10.45174 + 0.21085I$
$u = -0.283860 - 0.380766I$ $a = 1.212560 - 0.571324I$ $b = 0.640597 + 0.599069I$	$-1.100560 + 0.006892I$	$-10.45174 - 0.21085I$
$u = 0.14706 + 1.52666I$ $a = -0.012539 + 0.419450I$ $b = -0.413730 + 0.752092I$	$5.56058 + 3.23730I$	0
$u = 0.14706 - 1.52666I$ $a = -0.012539 - 0.419450I$ $b = -0.413730 - 0.752092I$	$5.56058 - 3.23730I$	0
$u = 0.12041 + 1.55906I$ $a = 1.71311 + 0.59107I$ $b = -1.364850 + 0.053351I$	$11.04790 + 4.75147I$	0
$u = 0.12041 - 1.55906I$ $a = 1.71311 - 0.59107I$ $b = -1.364850 - 0.053351I$	$11.04790 - 4.75147I$	0
$u = 1.59446 + 0.11781I$ $a = 0.470296 - 0.148956I$ $b = -1.42228 - 0.28677I$	$3.02276 + 3.67171I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.59446 - 0.11781I$ $a = 0.470296 + 0.148956I$ $b = -1.42228 + 0.28677I$	$3.02276 - 3.67171I$	0
$u = 0.04772 + 1.60438I$ $a = 1.367460 + 0.152126I$ $b = -1.54935 + 0.63664I$	$12.06290 - 7.00092I$	0
$u = 0.04772 - 1.60438I$ $a = 1.367460 - 0.152126I$ $b = -1.54935 - 0.63664I$	$12.06290 + 7.00092I$	0
$u = -0.01871 + 1.60873I$ $a = -1.61348 + 0.03894I$ $b = 1.58139 - 0.02708I$	$10.52470 - 0.08002I$	0
$u = -0.01871 - 1.60873I$ $a = -1.61348 - 0.03894I$ $b = 1.58139 + 0.02708I$	$10.52470 + 0.08002I$	0
$u = -0.04319 + 1.61215I$ $a = 1.90412 - 0.14400I$ $b = -1.240570 + 0.030624I$	$5.52663 - 2.36605I$	0
$u = -0.04319 - 1.61215I$ $a = 1.90412 + 0.14400I$ $b = -1.240570 - 0.030624I$	$5.52663 + 2.36605I$	0
$u = 0.09411 + 1.62140I$ $a = 1.57411 + 0.01957I$ $b = -1.311230 - 0.324208I$	$6.50816 + 6.43237I$	0
$u = 0.09411 - 1.62140I$ $a = 1.57411 - 0.01957I$ $b = -1.311230 + 0.324208I$	$6.50816 - 6.43237I$	0
$u = -0.40126 + 1.58028I$ $a = 0.315133 + 0.055054I$ $b = -0.25564 - 1.43131I$	$2.35561 + 5.41845I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.40126-1.58028I$ $a=\ \ 0.315133-0.055054I$ $b=-0.25564+1.43131I$	$2.35561-5.41845I$	0
$u=-0.09574+1.63425I$ $a=\ \ 1.65669-0.13609I$ $b=-1.297230+0.168492I$	$5.38317-3.33321I$	0
$u=-0.09574-1.63425I$ $a=\ \ 1.65669+0.13609I$ $b=-1.297230-0.168492I$	$5.38317+3.33321I$	0
$u=\ \ 0.32785+1.60601I$ $a=\ \ 0.245188-0.074585I$ $b=-0.27399+1.39829I$	$5.94803-11.21930I$	0
$u=\ \ 0.32785-1.60601I$ $a=\ \ 0.245188+0.074585I$ $b=-0.27399-1.39829I$	$5.94803+11.21930I$	0
$u=-0.15468+1.66146I$ $a=\ \ 1.374040-0.309901I$ $b=-1.52586+0.10620I$	$7.11961-5.54819I$	0
$u=-0.15468-1.66146I$ $a=\ \ 1.374040+0.309901I$ $b=-1.52586-0.10620I$	$7.11961+5.54819I$	0
$u=-0.71253+1.55073I$ $a=-1.36949+0.72327I$ $b=\ \ 1.48889+0.52726I$	$12.8693+6.8764I$	0
$u=-0.71253-1.55073I$ $a=-1.36949-0.72327I$ $b=\ \ 1.48889-0.52726I$	$12.8693-6.8764I$	0
$u=-0.04063+1.70758I$ $a=\ \ 1.278400-0.060583I$ $b=-1.75827-0.48827I$	$7.56157+3.30858I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.04063-1.70758I$ $a=1.278400+0.060583I$ $b=-1.75827+0.48827I$	$7.56157-3.30858I$	0
$u=0.09804+1.70887I$ $a=1.322810+0.138996I$ $b=-1.58383-0.20996I$	$6.40985+3.35174I$	0
$u=0.09804-1.70887I$ $a=1.322810-0.138996I$ $b=-1.58383+0.20996I$	$6.40985-3.35174I$	0
$u=-0.078333+0.268938I$ $a=2.24092-1.99047I$ $b=0.835453+0.478092I$	$-0.24867+4.16049I$	$-7.66355-7.49884I$
$u=-0.078333-0.268938I$ $a=2.24092+1.99047I$ $b=0.835453-0.478092I$	$-0.24867-4.16049I$	$-7.66355+7.49884I$
$u=0.21066+1.72405I$ $a=1.165180+0.153518I$ $b=-1.94902+0.92546I$	$9.84065+2.24703I$	0
$u=0.21066-1.72405I$ $a=1.165180-0.153518I$ $b=-1.94902-0.92546I$	$9.84065-2.24703I$	0
$u=0.206008+0.095507I$ $a=4.40218+1.16103I$ $b=1.149320-0.378794I$	$5.56039-6.41977I$	$-1.64714+6.90816I$
$u=0.206008-0.095507I$ $a=4.40218-1.16103I$ $b=1.149320+0.378794I$	$5.56039+6.41977I$	$-1.64714-6.90816I$
$u=0.76917+1.60242I$ $a=-1.173590-0.564908I$ $b=1.392800-0.185453I$	$8.15426-4.21056I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.76917 - 1.60242I$ $a = -1.173590 + 0.564908I$ $b = 1.392800 + 0.185453I$	$8.15426 + 4.21056I$	0
$u = -0.110856 + 0.169303I$ $a = 1.76909 - 0.13498I$ $b = 0.382443 + 0.713139I$	$-1.02164 - 2.30830I$	$-7.48322 - 1.56595I$
$u = -0.110856 - 0.169303I$ $a = 1.76909 + 0.13498I$ $b = 0.382443 - 0.713139I$	$-1.02164 + 2.30830I$	$-7.48322 + 1.56595I$
$u = -0.063091 + 0.187939I$ $a = 1.72582 + 0.32469I$ $b = 0.494125 - 0.690437I$	$-1.67668 - 0.04041I$	$-5.30445 + 0.32910I$
$u = -0.063091 - 0.187939I$ $a = 1.72582 - 0.32469I$ $b = 0.494125 + 0.690437I$	$-1.67668 + 0.04041I$	$-5.30445 - 0.32910I$
$u = -1.82926 + 0.02603I$ $a = 0.482654 - 0.123459I$ $b = -1.47654 - 0.21993I$	$6.01817 + 9.10369I$	0
$u = -1.82926 - 0.02603I$ $a = 0.482654 + 0.123459I$ $b = -1.47654 + 0.21993I$	$6.01817 - 9.10369I$	0
$u = 0.76157 + 1.67204I$ $a = -1.25771 - 0.64738I$ $b = 1.52331 - 0.55961I$	$7.9115 - 12.2028I$	0
$u = 0.76157 - 1.67204I$ $a = -1.25771 + 0.64738I$ $b = 1.52331 + 0.55961I$	$7.9115 + 12.2028I$	0
$u = -0.71606 + 1.72620I$ $a = -1.261790 + 0.582601I$ $b = 1.54412 + 0.55478I$	$11.6473 + 17.9875I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.71606-1.72620I$ $a=-1.261790-0.582601I$ $b=1.54412-0.55478I$	$11.6473-17.9875I$	0
$u=-0.0974023+0.0623725I$ $a=3.28317+1.01195I$ $b=1.107660-0.597656I$	$1.08848-7.32595I$	$2.34406+1.32437I$
$u=-0.0974023-0.0623725I$ $a=3.28317-1.01195I$ $b=1.107660+0.597656I$	$1.08848+7.32595I$	$2.34406-1.32437I$
$u=-0.0066835+0.1147270I$ $a=3.13072-1.30877I$ $b=1.024890+0.566210I$	$-0.11428+4.80264I$	$-3.65062-12.30393I$
$u=-0.0066835-0.1147270I$ $a=3.13072+1.30877I$ $b=1.024890-0.566210I$	$-0.11428-4.80264I$	$-3.65062+12.30393I$
$u=-0.61470+1.78428I$ $a=-1.201800+0.424412I$ $b=1.48580+0.18410I$	$11.96160+0.01213I$	0
$u=-0.61470-1.78428I$ $a=-1.201800-0.424412I$ $b=1.48580-0.18410I$	$11.96160-0.01213I$	0
$u=-0.89738+1.67398I$ $a=-1.097410+0.546329I$ $b=1.377410+0.235887I$	$11.5998+8.9491I$	0
$u=-0.89738-1.67398I$ $a=-1.097410-0.546329I$ $b=1.377410-0.235887I$	$11.5998-8.9491I$	0

II.

$\boldsymbol{I_2^u = \langle 1.44\times 10^{37}u^{35} - 2.22\times 10^{37}u^{34} + \cdots + 7.11\times 10^{36}b - 1.16\times 10^{37},\ -2.43\times 10^{37}u^{35} + 4.53\times 10^{37}u^{34} + \cdots + 7.11\times 10^{36}a - 4.98\times 10^{37},\ u^{36} - u^{35} + \cdots - 2u - 1\rangle}$

(i) Arc colorings

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

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

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

$$a_5 = \begin{pmatrix} 3.42056u^{35} - 6.37007u^{34} + \cdots - 9.08919u + 7.00984 \\ -2.03103u^{35} + 3.11780u^{34} + \cdots + 2.58945u + 1.62609 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.641007u^{35} + 2.22410u^{34} + \cdots + 5.52246u - 8.65232 \\ -1.31983u^{35} + 2.36282u^{34} + \cdots + 1.54791u + 1.56671 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 3.24316u^{35} - 4.97900u^{34} + \cdots - 4.88135u - 0.259154 \\ -1.85425u^{35} + 2.56540u^{34} + \cdots + 1.97687u + 3.65637 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -5.75723u^{35} + 8.87108u^{34} + \cdots + 5.24889u + 6.22644 \\ 2.65462u^{35} - 4.56701u^{34} + \cdots - 3.04349u - 1.83423 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -5.75723u^{35} + 8.87108u^{34} + \cdots + 5.24889u + 6.22644 \\ 0.831439u^{35} - 1.97606u^{34} + \cdots - 2.57303u + 1.27961 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -6.11435u^{35} + 8.23226u^{34} + \cdots - 1.34294u + 17.7253 \\ 3.05021u^{35} - 5.25482u^{34} + \cdots - 2.82856u - 3.66053 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -1.38953u^{35} + 3.25228u^{34} + \cdots + 6.49974u - 8.63593 \\ -1.45293u^{35} + 2.48165u^{34} + \cdots + 1.35868u + 1.84636 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 5.02428u^{35} - 7.81497u^{34} + \cdots - 8.04860u - 10.1028 \\ 1.31065u^{35} - 1.56847u^{34} + \cdots + 0.857942u - 3.37089 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 27.4389u^{35} - 44.6719u^{34} + \cdots - 34.3494u - 47.9556$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{36} - 21u^{35} + \cdots + 2u - 1$
c_2	$u^{36} - 7u^{34} + \cdots + 11u^2 - 1$
c_3	$u^{36} - 3u^{35} + \cdots + 3u + 1$
c_4	$u^{36} - u^{35} + \cdots - u - 1$
c_5	$u^{36} + 2u^{34} + \cdots - 49u - 5$
c_6	$u^{36} - 8u^{35} + \cdots - 52u + 8$
c_7	$u^{36} + u^{35} + \cdots + 2u - 1$
c_8	$u^{36} - 9u^{34} + \cdots - 2u + 1$
c_9	$u^{36} + 8u^{35} + \cdots + 52u + 8$
c_{10}	$u^{36} + 11u^{35} + \cdots - 6u - 1$
c_{11}	$u^{36} + u^{35} + \cdots + u - 1$
c_{12}	$u^{36} - u^{35} + \cdots - 2u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{36} - 17y^{35} + \cdots - 18y + 1$
c_2	$y^{36} - 14y^{35} + \cdots - 22y + 1$
c_3	$y^{36} - 13y^{35} + \cdots - y + 1$
c_4, c_{11}	$y^{36} - 33y^{35} + \cdots - 17y + 1$
c_5	$y^{36} + 4y^{35} + \cdots + 329y + 25$
c_6, c_9	$y^{36} + 20y^{35} + \cdots + 816y + 64$
c_7, c_{12}	$y^{36} + 13y^{35} + \cdots - 18y + 1$
c_8	$y^{36} - 18y^{35} + \cdots - 10y + 1$
c_{10}	$y^{36} - 13y^{35} + \cdots - 16y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.933978+0.264392I$ $a=-0.951125+0.787457I$ $b=-0.110086+0.813600I$	$-3.05609+0.45050I$	$-16.5545-1.0085I$
$u=-0.933978-0.264392I$ $a=-0.951125-0.787457I$ $b=-0.110086-0.813600I$	$-3.05609-0.45050I$	$-16.5545+1.0085I$
$u=-0.843660$ $a=-1.17925$ $b=\ \ 0.380590$	-3.07766	-15.7190
$u=-0.000828+1.169490I$ $a=\ \ 0.489625-0.413020I$ $b=-0.197521+0.366303I$	$1.98881+1.75644I$	$-9.99638-6.31597I$
$u=-0.000828-1.169490I$ $a=\ \ 0.489625+0.413020I$ $b=-0.197521-0.366303I$	$1.98881-1.75644I$	$-9.99638+6.31597I$
$u=-0.079255+0.798291I$ $a=\ \ 0.40042+1.42271I$ $b=-0.588235-0.406172I$	$4.41221-2.72786I$	$2.45795+3.77656I$
$u=-0.079255-0.798291I$ $a=\ \ 0.40042-1.42271I$ $b=-0.588235+0.406172I$	$4.41221+2.72786I$	$2.45795-3.77656I$
$u=\ \ 1.042160+0.604650I$ $a=\ \ 0.35792+2.09607I$ $b=-0.966126+0.621760I$	$-1.12414-6.38280I$	$-14.9037-4.1510I$
$u=\ \ 1.042160-0.604650I$ $a=\ \ 0.35792-2.09607I$ $b=-0.966126-0.621760I$	$-1.12414+6.38280I$	$-14.9037+4.1510I$
$u=\ \ 0.504737+0.607203I$ $a=-0.956754+0.326325I$ $b=\ \ 0.631344+0.573526I$	$-0.80766-3.25952I$	$-5.28373+4.58456I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.504737 - 0.607203I$ $a = -0.956754 - 0.326325I$ $b = 0.631344 - 0.573526I$	$-0.80766 + 3.25952I$	$-5.28373 - 4.58456I$
$u = -0.741509 + 0.266947I$ $a = -1.49012 - 0.26016I$ $b = -1.45690 + 0.59412I$	$-0.806411 - 0.462384I$	$4.6062 + 18.2130I$
$u = -0.741509 - 0.266947I$ $a = -1.49012 + 0.26016I$ $b = -1.45690 - 0.59412I$	$-0.806411 + 0.462384I$	$4.6062 - 18.2130I$
$u = 0.730985 + 0.222082I$ $a = -1.40211 + 1.09483I$ $b = -1.385760 + 0.151946I$	$2.86751 - 6.34395I$	$-4.36129 + 11.79304I$
$u = 0.730985 - 0.222082I$ $a = -1.40211 - 1.09483I$ $b = -1.385760 - 0.151946I$	$2.86751 + 6.34395I$	$-4.36129 - 11.79304I$
$u = -1.248490 + 0.269258I$ $a = -0.845857 - 0.140881I$ $b = 0.848036 - 0.217008I$	$-3.42093 + 0.63578I$	$-11.32870 + 7.98607I$
$u = -1.248490 - 0.269258I$ $a = -0.845857 + 0.140881I$ $b = 0.848036 + 0.217008I$	$-3.42093 - 0.63578I$	$-11.32870 - 7.98607I$
$u = 0.178545 + 1.294760I$ $a = -0.439829 - 0.979967I$ $b = 0.985010 - 0.410304I$	$7.82429 - 7.37095I$	$5.35667 + 5.36931I$
$u = 0.178545 - 1.294760I$ $a = -0.439829 + 0.979967I$ $b = 0.985010 + 0.410304I$	$7.82429 + 7.37095I$	$5.35667 - 5.36931I$
$u = -0.028226 + 1.317640I$ $a = 0.355990 + 0.458054I$ $b = 0.604381 + 0.375933I$	$2.38848 + 2.70269I$	$-8.6681 - 13.6821I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.028226-1.317640I$ $a=0.355990-0.458054I$ $b=0.604381-0.375933I$	$2.38848-2.70269I$	$-8.6681+13.6821I$
$u=0.529165+0.370552I$ $a=-0.460011+0.394367I$ $b=1.100350+0.576229I$	$-0.24462+4.33021I$	$-7.90307+3.12935I$
$u=0.529165-0.370552I$ $a=-0.460011-0.394367I$ $b=1.100350-0.576229I$	$-0.24462-4.33021I$	$-7.90307-3.12935I$
$u=-0.581297+0.258694I$ $a=-0.520779+0.436766I$ $b=1.077910+0.535598I$	$0.72055+7.65074I$	$-10.2916-12.5302I$
$u=-0.581297-0.258694I$ $a=-0.520779-0.436766I$ $b=1.077910-0.535598I$	$0.72055-7.65074I$	$-10.2916+12.5302I$
$u=1.49418+0.18399I$ $a=-0.703476+0.117939I$ $b=1.064640+0.190926I$	$-2.63110+2.23325I$	0
$u=1.49418-0.18399I$ $a=-0.703476-0.117939I$ $b=1.064640-0.190926I$	$-2.63110-2.23325I$	0
$u=-0.461663+0.164231I$ $a=5.34764+2.96273I$ $b=-0.785476-0.073442I$	$0.32040+6.52647I$	$-1.05599-6.20509I$
$u=-0.461663-0.164231I$ $a=5.34764-2.96273I$ $b=-0.785476+0.073442I$	$0.32040-6.52647I$	$-1.05599+6.20509I$
$u=0.25924+1.49913I$ $a=1.50473+0.43312I$ $b=-1.42803-0.15494I$	$8.15186+4.94827I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.25924 - 1.49913I$ $a = \quad 1.50473 - 0.43312I$ $b = -1.42803 + 0.15494I$	$8.15186 - 4.94827I$	0
$u = \quad 0.452642$ $a = \quad 7.57265$ $b = -0.803257$	-3.75887	-7.14540
$u = \quad 0.13856 + 1.70888I$ $a = -1.240340 - 0.207170I$ $b = \quad 1.81020 - 0.51076I$	$9.42435 + 2.44760I$	0
$u = \quad 0.13856 - 1.70888I$ $a = -1.240340 + 0.207170I$ $b = \quad 1.81020 + 0.51076I$	$9.42435 - 2.44760I$	0
$u = -0.10682 + 1.77968I$ $a = \quad 1.357380 - 0.135941I$ $b = -1.49240 + 0.18207I$	$7.01957 - 4.09701I$	0
$u = -0.10682 - 1.77968I$ $a = \quad 1.357380 + 0.135941I$ $b = -1.49240 - 0.18207I$	$7.01957 + 4.09701I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{36}-21u^{35}+\cdots+2u-1)(u^{99}+8u^{98}+\cdots+36u-5)$
c_2	$(u^{36}-7u^{34}+\cdots+11u^2-1)$ $\cdot(u^{99}-u^{98}+\cdots-20407938u-31437685)$
c_3	$(u^{36}-3u^{35}+\cdots+3u+1)(u^{99}-2u^{98}+\cdots-309043u+44933)$
c_4	$(u^{36}-u^{35}+\cdots-u-1)(u^{99}+2u^{98}+\cdots+66361u+6341)$
c_5	$(u^{36}+2u^{34}+\cdots-49u-5)(u^{99}-3u^{98}+\cdots-439231u-28927)$
c_6	$(u^{36}-8u^{35}+\cdots-52u+8)(u^{99}-5u^{98}+\cdots-544u+88)$
c_7	$(u^{36}+u^{35}+\cdots+2u-1)(u^{99}+2u^{98}+\cdots-14u-1)$
c_8	$(u^{36}-9u^{34}+\cdots-2u+1)(u^{99}+u^{98}+\cdots+1415210u-900451)$
c_9	$(u^{36}+8u^{35}+\cdots+52u+8)(u^{99}-5u^{98}+\cdots-544u+88)$
c_{10}	$(u^{36}+11u^{35}+\cdots-6u-1)(u^{99}+6u^{98}+\cdots-11704u+191)$
c_{11}	$(u^{36}+u^{35}+\cdots+u-1)(u^{99}+2u^{98}+\cdots+66361u+6341)$
c_{12}	$(u^{36}-u^{35}+\cdots-2u-1)(u^{99}+2u^{98}+\cdots-14u-1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{36} - 17y^{35} + \cdots - 18y + 1)(y^{99} - 10y^{98} + \cdots - 294y - 25)$
c_2	$(y^{36} - 14y^{35} + \cdots - 22y + 1)$ $\cdot (y^{99} + 41y^{98} + \cdots - 24026013786433826y - 988328038159225)$
c_3	$(y^{36} - 13y^{35} + \cdots - y + 1)$ $\cdot (y^{99} + 10y^{98} + \cdots - 1343708331y - 2018974489)$
c_4, c_{11}	$(y^{36} - 33y^{35} + \cdots - 17y + 1)$ $\cdot (y^{99} - 90y^{98} + \cdots + 1567376929y - 40208281)$
c_5	$(y^{36} + 4y^{35} + \cdots + 329y + 25)$ $\cdot (y^{99} + 47y^{98} + \cdots + 82222035835y - 836771329)$
c_6, c_9	$(y^{36} + 20y^{35} + \cdots + 816y + 64)(y^{99} + 59y^{98} + \cdots - 190880y - 7744)$
c_7, c_{12}	$(y^{36} + 13y^{35} + \cdots - 18y + 1)(y^{99} + 88y^{98} + \cdots - 138y - 1)$
c_8	$(y^{36} - 18y^{35} + \cdots - 10y + 1)$ $\cdot (y^{99} + 33y^{98} + \cdots - 28122811583158y - 810812003401)$
c_{10}	$(y^{36} - 13y^{35} + \cdots - 16y + 1)$ $\cdot (y^{99} - 46y^{98} + \cdots + 118391676y - 36481)$