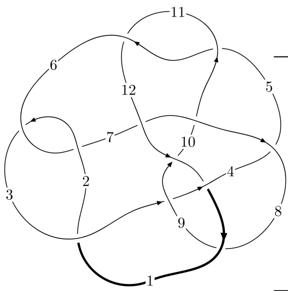
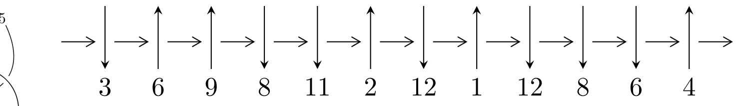
$12n_{0465}$ ($K12n_{0465}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I^u_1 = \langle &6.76118 \times 10^{193} u^{63} + 5.01371 \times 10^{193} u^{62} + \cdots + 1.25354 \times 10^{194} b + 4.44874 \times 10^{194},\\
&2.86519 \times 10^{194} u^{63} + 6.21880 \times 10^{194} u^{62} + \cdots + 7.52124 \times 10^{194} a + 9.81839 \times 10^{195},\ u^{64} + u^{63} + \cdots + 19u\\
I^u_2 = \langle &-112393648468 u^{22} - 311362711897 u^{21} + \cdots + 138351003616796 b - 17479985966667,\\
&279872528016337 u^{22} + 237504248059593 u^{21} + \cdots + 525733813743802 a + 2170261969973827,\\
&u^{23} - u^{21} + \cdots + 6u + 1\rangle
\end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 87 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. $\boldsymbol{I_1^u = \langle 6.76 \times 10^{193} u^{63} + 5.01 \times 10^{193} u^{62} + \cdots + 1.25 \times 10^{194} b + 4.45 \times 10^{194},\ 2.87 \times 10^{194} u^{63} + 6.22 \times 10^{194} u^{62} + \cdots + 7.52 \times 10^{194} a + 9.82 \times 10^{195},\ u^{64} + u^{63} + \cdots + 19u + 3\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -0.380947u^{63} - 0.826832u^{62} + \cdots - 59.2801u - 13.0542 \\ -0.539367u^{63} - 0.399965u^{62} + \cdots - 23.3756u - 3.54894 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 0.864918u^{63} + 0.925284u^{62} + \cdots + 43.0012u + 5.72243 \\ 0.869510u^{63} + 0.384944u^{62} + \cdots + 17.0021u - 1.04303 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 1.73443u^{63} + 1.31023u^{62} + \cdots + 60.0033u + 4.67940 \\ 0.869510u^{63} + 0.384944u^{62} + \cdots + 17.0021u - 1.04303 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -0.367182u^{63} - 0.631069u^{62} + \cdots - 51.2318u - 11.2742 \\ 0.329774u^{63} + 0.0548480u^{62} + \cdots - 2.95329u - 2.44334 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0.920036u^{63} + 0.918957u^{62} + \cdots + 40.1447u + 4.44983 \\ 0.991980u^{63} + 0.500896u^{62} + \cdots + 22.5982u + 0.226335 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -0.336655u^{63} - 0.477158u^{62} + \cdots - 36.0738u - 7.32788 \\ -0.606568u^{63} - 0.404583u^{62} + \cdots - 19.9997u - 2.71614 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -0.390211u^{63} - 0.905866u^{62} + \cdots - 53.3726u - 12.0097 \\ -0.969683u^{63} - 0.116368u^{62} + \cdots - 0.389177u + 6.40660 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0.741182u^{63} + 0.321617u^{62} + \cdots + 10.1253u - 2.13735 \\ 0.0835106u^{63} + 0.0670452u^{62} + \cdots + 1.78701u - 0.325318 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -1.24155u^{63} - 1.19696u^{62} + \cdots - 65.0895u - 11.0387 \\ -0.376759u^{63} - 0.314282u^{62} + \cdots - 18.4692u - 2.96853 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -6.43385u^{63} - 6.54582u^{62} + \cdots - 289.191u - 67.1645$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{64} + 32u^{63} + \cdots + 18u + 1$
c_2, c_6	$u^{64} + 16u^{62} + \cdots - 2u + 1$
c_3	$u^{64} + u^{63} + \cdots + 19u + 3$
c_4	$u^{64} + 3u^{63} + \cdots - 4170722u + 640748$
c_5, c_{11}	$u^{64} - 43u^{62} + \cdots - 783u + 59$
c_7	$u^{64} - u^{63} + \cdots + 119493u + 223897$
c_8	$u^{64} - 5u^{63} + \cdots + 813u + 95$
c_9	$u^{64} - 13u^{63} + \cdots - 62574u + 5609$
c_{10}	$u^{64} + 14u^{63} + \cdots - 360448u + 39592$
c_{12}	$u^{64} + 3u^{63} + \cdots + 138u + 49$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{64} - 8y^{63} + \cdots + 18y + 1$
c_2, c_6	$y^{64} + 32y^{63} + \cdots + 18y + 1$
c_3	$y^{64} + y^{63} + \cdots + 167y + 9$
c_4	$y^{64} - 39y^{63} + \cdots - 7589236264780y + 410557999504$
c_5, c_{11}	$y^{64} - 86y^{63} + \cdots - 103211y + 3481$
c_7	$y^{64} - 99y^{63} + \cdots - 1572065687631y + 50129866609$
c_8	$y^{64} - y^{63} + \cdots + 166101y + 9025$
c_9	$y^{64} - 39y^{63} + \cdots - 766399734y + 31460881$
c_{10}	$y^{64} - 116y^{63} + \cdots + 12169918304y + 1567526464$
c_{12}	$y^{64} + 9y^{63} + \cdots + 87090y + 2401$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.768439 + 0.710097I$ $a = 1.306620 + 0.123877I$ $b = -0.72129 - 1.34035I$	$-10.46510 + 7.62597I$	0
$u = 0.768439 - 0.710097I$ $a = 1.306620 - 0.123877I$ $b = -0.72129 + 1.34035I$	$-10.46510 - 7.62597I$	0
$u = -0.085218 + 1.067950I$ $a = -0.423774 - 0.836346I$ $b = -0.255634 - 0.976959I$	$-4.35206 + 0.82760I$	0
$u = -0.085218 - 1.067950I$ $a = -0.423774 + 0.836346I$ $b = -0.255634 + 0.976959I$	$-4.35206 - 0.82760I$	0
$u = 0.266521 + 0.888631I$ $a = 0.693375 - 0.164357I$ $b = -0.451141 + 1.243390I$	$-3.60138 + 1.26061I$	$-9.53908 - 0.36965I$
$u = 0.266521 - 0.888631I$ $a = 0.693375 + 0.164357I$ $b = -0.451141 - 1.243390I$	$-3.60138 - 1.26061I$	$-9.53908 + 0.36965I$
$u = 0.455110 + 0.994145I$ $a = 0.733351 + 0.024556I$ $b = 0.492807 - 1.144750I$	$-11.57250 - 2.78285I$	0
$u = 0.455110 - 0.994145I$ $a = 0.733351 - 0.024556I$ $b = 0.492807 + 1.144750I$	$-11.57250 + 2.78285I$	0
$u = 0.835939 + 0.288434I$ $a = -0.858019 - 0.218506I$ $b = 0.546312 + 0.216534I$	$1.46270 + 0.81103I$	$3.71659 + 0.11699I$
$u = 0.835939 - 0.288434I$ $a = -0.858019 + 0.218506I$ $b = 0.546312 - 0.216534I$	$1.46270 - 0.81103I$	$3.71659 - 0.11699I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.971832 + 0.575905I$ $a = 0.795059 - 0.858262I$ $b = -0.071970 + 0.666140I$	$-0.71782 - 4.52201I$	0
$u = -0.971832 - 0.575905I$ $a = 0.795059 + 0.858262I$ $b = -0.071970 - 0.666140I$	$-0.71782 + 4.52201I$	0
$u = 0.618813 + 0.970738I$ $a = -0.607323 + 0.738340I$ $b = 0.341775 + 1.178830I$	$-3.60210 + 6.30080I$	0
$u = 0.618813 - 0.970738I$ $a = -0.607323 - 0.738340I$ $b = 0.341775 - 1.178830I$	$-3.60210 - 6.30080I$	0
$u = 0.952500 + 0.649719I$ $a = 0.456188 - 0.728196I$ $b = -0.672285 + 0.580916I$	$2.58365 + 2.09320I$	0
$u = 0.952500 - 0.649719I$ $a = 0.456188 + 0.728196I$ $b = -0.672285 - 0.580916I$	$2.58365 - 2.09320I$	0
$u = 0.021851 + 0.821787I$ $a = 0.47182 - 2.13552I$ $b = 0.489476 - 0.207876I$	$-8.94146 - 1.47584I$	$-7.02830 + 5.13134I$
$u = 0.021851 - 0.821787I$ $a = 0.47182 + 2.13552I$ $b = 0.489476 + 0.207876I$	$-8.94146 + 1.47584I$	$-7.02830 - 5.13134I$
$u = -0.468002 + 1.129190I$ $a = -0.136369 - 0.174368I$ $b = 0.10048 + 1.51887I$	$-16.4681 - 4.7254I$	0
$u = -0.468002 - 1.129190I$ $a = -0.136369 + 0.174368I$ $b = 0.10048 - 1.51887I$	$-16.4681 + 4.7254I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.830809 + 0.908495I$ $a = 1.53629 + 0.69226I$ $b = -0.627832 + 1.024980I$	$1.28045 - 7.16483I$	0
$u = -0.830809 - 0.908495I$ $a = 1.53629 - 0.69226I$ $b = -0.627832 - 1.024980I$	$1.28045 + 7.16483I$	0
$u = 0.102197 + 0.756108I$ $a = -0.999058 + 0.316929I$ $b = 0.650916 + 0.954374I$	$0.31001 + 2.61678I$	$0.776084 - 0.171136I$
$u = 0.102197 - 0.756108I$ $a = -0.999058 - 0.316929I$ $b = 0.650916 - 0.954374I$	$0.31001 - 2.61678I$	$0.776084 + 0.171136I$
$u = -1.006830 + 0.792686I$ $a = 0.941730 + 0.113880I$ $b = -0.718433 - 0.167055I$	$-0.05240 - 5.34782I$	0
$u = -1.006830 - 0.792686I$ $a = 0.941730 - 0.113880I$ $b = -0.718433 + 0.167055I$	$-0.05240 + 5.34782I$	0
$u = -0.347978 + 0.595874I$ $a = 2.33082 + 0.15889I$ $b = -0.573908 + 0.916885I$	$-2.27384 - 4.56530I$	$-7.78284 + 7.48206I$
$u = -0.347978 - 0.595874I$ $a = 2.33082 - 0.15889I$ $b = -0.573908 - 0.916885I$	$-2.27384 + 4.56530I$	$-7.78284 - 7.48206I$
$u = 0.983563 + 0.949818I$ $a = 1.52104 - 0.72824I$ $b = -0.623974 - 0.099517I$	$-9.24473 - 1.84302I$	0
$u = 0.983563 - 0.949818I$ $a = 1.52104 + 0.72824I$ $b = -0.623974 + 0.099517I$	$-9.24473 + 1.84302I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.498586 + 0.342899I$ $a = -3.69984 - 2.03368I$ $b = 0.449391 + 1.143210I$	$-11.89270 + 5.18300I$	$-9.77291 - 9.94345I$
$u = 0.498586 - 0.342899I$ $a = -3.69984 + 2.03368I$ $b = 0.449391 - 1.143210I$	$-11.89270 - 5.18300I$	$-9.77291 + 9.94345I$
$u = -0.461857 + 0.379511I$ $a = -1.44331 - 0.07225I$ $b = 0.486831 - 1.275810I$	$-1.85538 - 2.97884I$	$-6.59140 + 7.67980I$
$u = -0.461857 - 0.379511I$ $a = -1.44331 + 0.07225I$ $b = 0.486831 + 1.275810I$	$-1.85538 + 2.97884I$	$-6.59140 - 7.67980I$
$u = -1.12543 + 0.86119I$ $a = -1.003630 - 0.572524I$ $b = 0.721686 + 0.659860I$	$0.148717 - 0.150459I$	0
$u = -1.12543 - 0.86119I$ $a = -1.003630 + 0.572524I$ $b = 0.721686 - 0.659860I$	$0.148717 + 0.150459I$	0
$u = 0.98638 + 1.04285I$ $a = -1.092850 + 0.417343I$ $b = 1.118790 - 0.379740I$	$-9.44514 + 9.24996I$	0
$u = 0.98638 - 1.04285I$ $a = -1.092850 - 0.417343I$ $b = 1.118790 + 0.379740I$	$-9.44514 - 9.24996I$	0
$u = 1.44274 + 0.02938I$ $a = -0.615836 + 0.495319I$ $b = 0.071795 - 0.805712I$	$-0.144341 + 1.401570I$	0
$u = 1.44274 - 0.02938I$ $a = -0.615836 - 0.495319I$ $b = 0.071795 + 0.805712I$	$-0.144341 - 1.401570I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.518307 + 0.185402I$ $a = -0.354206 + 0.642889I$ $b = 0.865746 - 0.532757I$	$1.10608 - 3.36124I$	$-0.42621 + 9.54804I$
$u = -0.518307 - 0.185402I$ $a = -0.354206 - 0.642889I$ $b = 0.865746 + 0.532757I$	$1.10608 + 3.36124I$	$-0.42621 - 9.54804I$
$u = 0.344648 + 0.412119I$ $a = 3.43307 - 3.90269I$ $b = 0.125752 + 0.298631I$	$-9.08308 - 1.54040I$	$-3.52047 + 8.43213I$
$u = 0.344648 - 0.412119I$ $a = 3.43307 + 3.90269I$ $b = 0.125752 - 0.298631I$	$-9.08308 + 1.54040I$	$-3.52047 - 8.43213I$
$u = -1.14020 + 0.92833I$ $a = -0.991241 - 0.285891I$ $b = 0.309850 - 1.050050I$	$-1.66777 - 3.20908I$	0
$u = -1.14020 - 0.92833I$ $a = -0.991241 + 0.285891I$ $b = 0.309850 + 1.050050I$	$-1.66777 + 3.20908I$	0
$u = -0.227253 + 0.454347I$ $a = -0.150236 - 1.032800I$ $b = -0.350045 + 0.327230I$	$-1.26856 + 0.70605I$	$-5.19223 - 1.71159I$
$u = -0.227253 - 0.454347I$ $a = -0.150236 + 1.032800I$ $b = -0.350045 - 0.327230I$	$-1.26856 - 0.70605I$	$-5.19223 + 1.71159I$
$u = -0.276652 + 0.303262I$ $a = 1.48929 + 0.35722I$ $b = -1.58452 - 0.40190I$	$-7.09270 - 0.18320I$	$-8.5918 + 26.1881I$
$u = -0.276652 - 0.303262I$ $a = 1.48929 - 0.35722I$ $b = -1.58452 + 0.40190I$	$-7.09270 + 0.18320I$	$-8.5918 - 26.1881I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.25213 + 1.08328I$ $a = -1.59960 + 0.05491I$ $b = 0.672809 + 1.012270I$	$-0.91338 + 5.51890I$	0
$u = 1.25213 - 1.08328I$ $a = -1.59960 - 0.05491I$ $b = 0.672809 - 1.012270I$	$-0.91338 - 5.51890I$	0
$u = -0.156228 + 0.290874I$ $a = 0.21881 - 3.26254I$ $b = -0.213772 - 0.956901I$	$-1.62143 - 1.10348I$	$-5.00798 + 3.54749I$
$u = -0.156228 - 0.290874I$ $a = 0.21881 + 3.26254I$ $b = -0.213772 + 0.956901I$	$-1.62143 + 1.10348I$	$-5.00798 - 3.54749I$
$u = -1.16098 + 1.20032I$ $a = -1.412120 - 0.001483I$ $b = 0.69640 - 1.25090I$	$-12.1872 - 15.7252I$	0
$u = -1.16098 - 1.20032I$ $a = -1.412120 + 0.001483I$ $b = 0.69640 + 1.25090I$	$-12.1872 + 15.7252I$	0
$u = 1.21102 + 1.16930I$ $a = 1.160920 - 0.049651I$ $b = -0.512568 - 1.188460I$	$-3.03377 + 10.06590I$	0
$u = 1.21102 - 1.16930I$ $a = 1.160920 + 0.049651I$ $b = -0.512568 + 1.188460I$	$-3.03377 - 10.06590I$	0
$u = 0.61897 + 1.71494I$ $a = -0.305411 - 0.225319I$ $b = 0.180451 - 1.014300I$	$-4.44894 - 0.47351I$	0
$u = 0.61897 - 1.71494I$ $a = -0.305411 + 0.225319I$ $b = 0.180451 + 1.014300I$	$-4.44894 + 0.47351I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.74962+0.59173I$ $a=\quad 1.25972-0.65598I$ $b=-0.450065+1.179190I$	$-12.53600-2.18533I$	0
$u=-1.74962-0.59173I$ $a=\quad 1.25972+0.65598I$ $b=-0.450065-1.179190I$	$-12.53600+2.18533I$	0
$u=-1.33222+1.51909I$ $a=\quad 0.511399+0.352829I$ $b=-0.493832-1.176170I$	$-12.21100+6.27838I$	0
$u=-1.33222-1.51909I$ $a=\quad 0.511399-0.352829I$ $b=-0.493832+1.176170I$	$-12.21100-6.27838I$	0

II. $I^u_2 = \langle -1.12\times10^{11}u^{22} - 3.11\times10^{11}u^{21} + \cdots + 1.38\times10^{13}b - 1.75\times10^{13},\ 2.80\times10^{14}u^{22} + 2.38\times10^{14}u^{21} + \cdots + 5.26\times10^{14}a + 2.17\times10^{15},\ u^{23} - u^{21} + \cdots + 6u + 1\rangle$

(i) Arc colorings

$$a_3 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_9 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-0.532346u^{22} - 0.451758u^{21} + \cdots - 3.94607u - 4.12806\\0.00812380u^{22} + 0.0225053u^{21} + \cdots - 1.76899u + 1.26345\end{pmatrix}$$
$$a_2 = \begin{pmatrix}-0.576639u^{22} - 0.0415103u^{21} + \cdots + 0.865302u - 4.15266\\0.523266u^{22} - 0.0991113u^{21} + \cdots + 0.406061u + 2.45807\end{pmatrix}$$
$$a_1 = \begin{pmatrix}-0.0533735u^{22} - 0.140622u^{21} + \cdots + 1.27136u - 1.69459\\0.523266u^{22} - 0.0991113u^{21} + \cdots + 0.406061u + 2.45807\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-0.240226u^{22} - 0.000150414u^{21} + \cdots - 2.50811u + 0.149221\\-0.126360u^{22} + 0.105650u^{21} + \cdots - 0.0810748u - 0.916657\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}-0.578843u^{22} - 0.170099u^{21} + \cdots - 0.0318002u - 4.29328\\0.229238u^{22} - 0.0424956u^{21} + \cdots - 0.296275u + 2.42859\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}-0.201365u^{22} + 0.284014u^{21} + \cdots - 1.93952u + 2.76031\\-0.0989915u^{22} + 0.379233u^{21} + \cdots + 2.77408u - 1.41057\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-1.57884u^{22} - 0.170099u^{21} + \cdots - 1.03180u - 10.2933\\0.718281u^{22} - 0.215517u^{21} + \cdots - 2.43939u + 4.91339\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}0.631324u^{22} + 0.428112u^{21} + \cdots + 4.76746u + 2.95129\\-0.107101u^{22} + 0.00114053u^{21} + \cdots + 1.94761u - 0.0866821\end{pmatrix}$$
$$a_5 = \begin{pmatrix}0.284014u^{22} + 0.0456181u^{21} + \cdots + 3.96851u + 1.20137\\0.206212u^{22} + 0.164773u^{21} + \cdots - 1.26608u + 0.609948\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= -\frac{355563029923215}{262866906871901}u^{22} - \frac{201540020728255}{262866906871901}u^{21} + \cdots + \frac{1754556307346636}{262866906871901}u - \frac{6210727541948044}{262866906871901}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{23} - 9u^{22} + \cdots - 11u + 1$
c_2	$u^{23} - u^{22} + \cdots + u - 1$
c_3	$u^{23} - u^{21} + \cdots + 6u + 1$
c_4	$u^{23} - 3u^{21} + \cdots + 6u + 4$
c_5	$u^{23} + u^{22} + \cdots + 4u + 1$
c_6	$u^{23} + u^{22} + \cdots + u + 1$
c_7	$u^{23} + 2u^{22} + \cdots - 6u + 1$
c_8	$u^{23} - 4u^{21} + \cdots + 6u + 1$
c_9	$u^{23} - 6u^{22} + \cdots + 3u + 1$
c_{10}	$u^{23} + 15u^{22} + \cdots + 4u + 8$
c_{11}	$u^{23} - u^{22} + \cdots + 4u - 1$
c_{12}	$u^{23} + 2u^{22} + \cdots - 3u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{23} + y^{22} + \cdots - 15y - 1$
c_2, c_6	$y^{23} + 9y^{22} + \cdots - 11y - 1$
c_3	$y^{23} - 2y^{22} + \cdots + 36y - 1$
c_4	$y^{23} - 6y^{22} + \cdots - 308y - 16$
c_5, c_{11}	$y^{23} - 25y^{22} + \cdots + 14y - 1$
c_7	$y^{23} - 18y^{22} + \cdots - 14y - 1$
c_8	$y^{23} - 8y^{22} + \cdots + 22y - 1$
c_9	$y^{23} - 18y^{22} + \cdots + 17y - 1$
c_{10}	$y^{23} - 23y^{22} + \cdots - 112y - 64$
c_{12}	$y^{23} - 2y^{22} + \cdots - 7y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.893750+0.421240I$ $a=-0.700987+0.971805I$ $b=\ \ 0.424483-0.573628I$	$-0.19060-5.12115I$	$0.52825+10.04685I$
$u=-0.893750-0.421240I$ $a=-0.700987-0.971805I$ $b=\ \ 0.424483+0.573628I$	$-0.19060+5.12115I$	$0.52825-10.04685I$
$u=\ \ 1.009380+0.144862I$ $a=\ \ 0.501893-0.040694I$ $b=-0.582203+0.603687I$	$1.18763-2.35933I$	$-0.54441+2.81335I$
$u=\ \ 1.009380-0.144862I$ $a=\ \ 0.501893+0.040694I$ $b=-0.582203-0.603687I$	$1.18763+2.35933I$	$-0.54441-2.81335I$
$u=\ \ 0.824076+0.431980I$ $a=-0.31656+1.78055I$ $b=\ \ 0.434403-1.159370I$	$-11.75970-4.28995I$	$-7.55896+1.61429I$
$u=\ \ 0.824076-0.431980I$ $a=-0.31656-1.78055I$ $b=\ \ 0.434403+1.159370I$	$-11.75970+4.28995I$	$-7.55896-1.61429I$
$u=-0.432840+0.804291I$ $a=\ \ 1.264390-0.010317I$ $b=-0.733090+0.984673I$	$-0.29640-3.14054I$	$-6.31334+6.17687I$
$u=-0.432840-0.804291I$ $a=\ \ 1.264390+0.010317I$ $b=-0.733090-0.984673I$	$-0.29640+3.14054I$	$-6.31334-6.17687I$
$u=-0.448748+0.721348I$ $a=-1.93684-3.19433I$ $b=\ \ 0.237145-0.577461I$	$-9.30020+1.18087I$	$-13.7807+7.4362I$
$u=-0.448748-0.721348I$ $a=-1.93684+3.19433I$ $b=\ \ 0.237145+0.577461I$	$-9.30020-1.18087I$	$-13.7807-7.4362I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.137895 + 0.681215I$ $a = -0.647316 - 0.323996I$ $b = 0.098638 - 1.232580I$	$-2.98206 + 2.14068I$	$-7.34511 - 5.88395I$
$u = 0.137895 - 0.681215I$ $a = -0.647316 + 0.323996I$ $b = 0.098638 + 1.232580I$	$-2.98206 - 2.14068I$	$-7.34511 + 5.88395I$
$u = -1.108090 + 0.692297I$ $a = 1.77762 + 0.17325I$ $b = -0.617221 + 1.022100I$	$0.25873 - 5.53788I$	$-1.35642 + 5.56127I$
$u = -1.108090 - 0.692297I$ $a = 1.77762 - 0.17325I$ $b = -0.617221 - 1.022100I$	$0.25873 + 5.53788I$	$-1.35642 - 5.56127I$
$u = 1.252020 + 0.409058I$ $a = 1.013030 - 0.856909I$ $b = -0.590775 + 0.675547I$	$1.39201 + 0.69958I$	$0.150882 - 0.471117I$
$u = 1.252020 - 0.409058I$ $a = 1.013030 + 0.856909I$ $b = -0.590775 - 0.675547I$	$1.39201 - 0.69958I$	$0.150882 + 0.471117I$
$u = -0.114607 + 1.393680I$ $a = 0.013743 - 0.511692I$ $b = -0.239456 - 0.903215I$	$-3.69072 + 1.05790I$	$-1.89355 - 6.61055I$
$u = -0.114607 - 1.393680I$ $a = 0.013743 + 0.511692I$ $b = -0.239456 + 0.903215I$	$-3.69072 - 1.05790I$	$-1.89355 + 6.61055I$
$u = -1.062860 + 0.913991I$ $a = -0.401149 - 0.557990I$ $b = 0.639569 + 0.734356I$	$0.88359 - 3.30259I$	$-3.25538 + 1.96589I$
$u = -1.062860 - 0.913991I$ $a = -0.401149 + 0.557990I$ $b = 0.639569 - 0.734356I$	$0.88359 + 3.30259I$	$-3.25538 - 1.96589I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.91918 + 1.12261I$ $a = -1.36761 + 0.59069I$ $b = 0.640606 + 0.971353I$	$0.12927 + 8.32658I$	$-4.10216 - 9.00086I$
$u = 0.91918 - 1.12261I$ $a = -1.36761 - 0.59069I$ $b = 0.640606 - 0.971353I$	$0.12927 - 8.32658I$	$-4.10216 + 9.00086I$
$u = -0.163309$ $a = -3.40044$ $b = 1.57580$	-7.19079	-25.0580

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{23} - 9u^{22} + \cdots - 11u + 1)(u^{64} + 32u^{63} + \cdots + 18u + 1)$
c_2	$(u^{23} - u^{22} + \cdots + u - 1)(u^{64} + 16u^{62} + \cdots - 2u + 1)$
c_3	$(u^{23} - u^{21} + \cdots + 6u + 1)(u^{64} + u^{63} + \cdots + 19u + 3)$
c_4	$(u^{23} - 3u^{21} + \cdots + 6u + 4)(u^{64} + 3u^{63} + \cdots - 4170722u + 640748)$
c_5	$(u^{23} + u^{22} + \cdots + 4u + 1)(u^{64} - 43u^{62} + \cdots - 783u + 59)$
c_6	$(u^{23} + u^{22} + \cdots + u + 1)(u^{64} + 16u^{62} + \cdots - 2u + 1)$
c_7	$(u^{23} + 2u^{22} + \cdots - 6u + 1)(u^{64} - u^{63} + \cdots + 119493u + 223897)$
c_8	$(u^{23} - 4u^{21} + \cdots + 6u + 1)(u^{64} - 5u^{63} + \cdots + 813u + 95)$
c_9	$(u^{23} - 6u^{22} + \cdots + 3u + 1)(u^{64} - 13u^{63} + \cdots - 62574u + 5609)$
c_{10}	$(u^{23} + 15u^{22} + \cdots + 4u + 8)(u^{64} + 14u^{63} + \cdots - 360448u + 39592)$
c_{11}	$(u^{23} - u^{22} + \cdots + 4u - 1)(u^{64} - 43u^{62} + \cdots - 783u + 59)$
c_{12}	$(u^{23} + 2u^{22} + \cdots - 3u + 1)(u^{64} + 3u^{63} + \cdots + 138u + 49)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{23}+y^{22}+\cdots-15y-1)(y^{64}-8y^{63}+\cdots+18y+1)$
c_2, c_6	$(y^{23}+9y^{22}+\cdots-11y-1)(y^{64}+32y^{63}+\cdots+18y+1)$
c_3	$(y^{23}-2y^{22}+\cdots+36y-1)(y^{64}+y^{63}+\cdots+167y+9)$
c_4	$(y^{23}-6y^{22}+\cdots-308y-16)$ $\cdot(y^{64}-39y^{63}+\cdots-7589236264780y+410557999504)$
c_5, c_{11}	$(y^{23}-25y^{22}+\cdots+14y-1)(y^{64}-86y^{63}+\cdots-103211y+3481)$
c_7	$(y^{23}-18y^{22}+\cdots-14y-1)$ $\cdot(y^{64}-99y^{63}+\cdots-1572065687631y+50129866609)$
c_8	$(y^{23}-8y^{22}+\cdots+22y-1)(y^{64}-y^{63}+\cdots+166101y+9025)$
c_9	$(y^{23}-18y^{22}+\cdots+17y-1)$ $\cdot(y^{64}-39y^{63}+\cdots-766399734y+31460881)$
c_{10}	$(y^{23}-23y^{22}+\cdots-112y-64)$ $\cdot(y^{64}-116y^{63}+\cdots+12169918304y+1567526464)$
c_{12}	$(y^{23}-2y^{22}+\cdots-7y-1)(y^{64}+9y^{63}+\cdots+87090y+2401)$