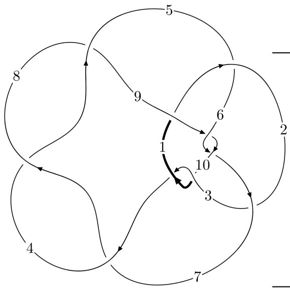
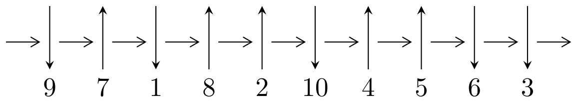
10_{91} $(K10a_{106})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 2.01404 \times 10^{18}u^{35} - 4.78501 \times 10^{18}u^{34} + \cdots + 1.28887 \times 10^{18}b - 6.30993 \times 10^{17},$$
$$1.95116 \times 10^{19}u^{35} - 6.14010 \times 10^{19}u^{34} + \cdots + 1.41776 \times 10^{19}a + 2.81287 \times 10^{18},\ u^{36} - 3u^{35} + \cdots + 3u^2 +$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 36 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. $I_1^u = \langle 2.01\times10^{18}u^{35}-4.79\times10^{18}u^{34}+\cdots+1.29\times10^{18}b-6.31\times10^{17},\ 1.95\times10^{19}u^{35}-6.14\times10^{19}u^{34}+\cdots+1.42\times10^{19}a+2.81\times10^{18},\ u^{36}-3u^{35}+\cdots+3u^2+1\rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_7 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_8 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_5 = \begin{pmatrix}u\\-u^3+u\end{pmatrix}$$
$$a_1 = \begin{pmatrix}-1.37623u^{35}+4.33085u^{34}+\cdots-3.87762u-0.198403\\-1.56264u^{35}+3.71256u^{34}+\cdots-0.845601u+0.489570\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-u^2+1\\u^4-2u^2\end{pmatrix}$$
$$a_3 = \begin{pmatrix}-1.25056u^{35}+3.87415u^{34}+\cdots-3.68575u+0.0424660\\-1.35969u^{35}+3.19917u^{34}+\cdots+0.648916u+0.386431\end{pmatrix}$$
$$a_2 = \begin{pmatrix}0.109127u^{35}+0.674985u^{34}+\cdots-4.33466u-0.343965\\-1.35969u^{35}+3.19917u^{34}+\cdots+0.648916u+0.386431\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}-0.498455u^{35}+1.46595u^{34}+\cdots-0.488164u-0.513350\\-0.561499u^{35}+1.29302u^{34}+\cdots-1.92515u+0.154877\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-0.126393u^{35}-0.0468796u^{34}+\cdots-0.938532u+0.697640\\-0.0671172u^{35}+0.329351u^{34}+\cdots-1.55309u-0.241770\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{5891107159197965512 0}{14177581577372014769}u^{35}+\frac{13839338003519482707 2}{14177581577372014769}u^{34}+\cdots+\frac{17847338835145888612 0}{14177581577372014769}u-\frac{4922018709261351330}{14177581577372014769}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{36} + 11u^{35} + \cdots - 6u + 1$
c_2	$u^{36} - 15u^{35} + \cdots - 172u + 43$
c_3, c_{10}	$u^{36} - u^{35} + \cdots - 14u + 1$
c_4, c_7, c_8	$u^{36} - 3u^{35} + \cdots + 3u^2 + 1$
c_5	$u^{36} - 3u^{35} + \cdots - 4u + 1$
c_6, c_9	$u^{36} + u^{35} + \cdots + 3u^2 + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{36} - 151y^{35} + \cdots - 50y + 1$
c_2	$y^{36} - 127y^{35} + \cdots + 24510y + 1849$
c_3, c_{10}	$y^{36} - 23y^{35} + \cdots - 134y + 1$
c_4, c_7, c_8	$y^{36} - 35y^{35} + \cdots + 6y + 1$
c_5	$y^{36} - 3y^{35} + \cdots - 46y + 1$
c_6, c_9	$y^{36} - 27y^{35} + \cdots + 6y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.374032 + 0.914066I$ $a = -0.115745 + 1.064450I$ $b = 0.39274 + 1.61774I$	$-0.97788 + 3.67922I$	$0.14859 - 9.07649I$
$u = 0.374032 - 0.914066I$ $a = -0.115745 - 1.064450I$ $b = 0.39274 - 1.61774I$	$-0.97788 - 3.67922I$	$0.14859 + 9.07649I$
$u = -0.482693 + 0.837528I$ $a = 0.27444 + 1.43336I$ $b = -0.48043 + 1.77937I$	$-6.25192 - 9.33147I$	$-3.94994 + 7.24799I$
$u = -0.482693 - 0.837528I$ $a = 0.27444 - 1.43336I$ $b = -0.48043 - 1.77937I$	$-6.25192 + 9.33147I$	$-3.94994 - 7.24799I$
$u = -0.682211 + 0.817416I$ $a = 0.932948 + 0.700627I$ $b = -0.21456 + 1.43556I$	$-5.71207 + 3.85049I$	$-4.56018 - 4.43001I$
$u = -0.682211 - 0.817416I$ $a = 0.932948 - 0.700627I$ $b = -0.21456 - 1.43556I$	$-5.71207 - 3.85049I$	$-4.56018 + 4.43001I$
$u = 1.24034$ $a = 1.44030$ $b = -0.439862$	-2.81937	-4.82430
$u = -1.326560 + 0.141059I$ $a = -0.897495 - 0.822985I$ $b = 0.382546 - 1.268300I$	$-1.18988 - 4.20357I$	$-3.06671 + 5.28453I$
$u = -1.326560 - 0.141059I$ $a = -0.897495 + 0.822985I$ $b = 0.382546 + 1.268300I$	$-1.18988 + 4.20357I$	$-3.06671 - 5.28453I$
$u = -0.399963 + 0.525370I$ $a = 1.08446 - 1.08372I$ $b = 0.289305 + 0.032283I$	$-1.74249 - 4.24043I$	$-1.82805 + 7.42803I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.399963-0.525370I$ $a=\ 1.08446+1.08372I$ $b=\ 0.289305-0.032283I$	$-1.74249+4.24043I$	$-1.82805-7.42803I$
$u=\ 0.545615+0.371407I$ $a=-0.622878-0.360163I$ $b=\ 0.204444+0.269001I$	$1.145860+0.715757I$	$6.11111-2.29185I$
$u=\ 0.545615-0.371407I$ $a=-0.622878+0.360163I$ $b=\ 0.204444-0.269001I$	$1.145860-0.715757I$	$6.11111+2.29185I$
$u=-1.34346$ $a=-0.912003$ $b=\ 2.41867$	1.82908	7.56320
$u=\ 1.370890+0.090628I$ $a=\ 0.660532-0.421889I$ $b=-0.39300-1.73201I$	$3.05261+2.19942I$	$3.77042-2.93592I$
$u=\ 1.370890-0.090628I$ $a=\ 0.660532+0.421889I$ $b=-0.39300+1.73201I$	$3.05261-2.19942I$	$3.77042+2.93592I$
$u=-1.39633$ $a=-0.729782$ $b=\ 12.3968$	1.61132	108.030
$u=\ 1.46569$ $a=-0.0582965$ $b=\ 1.01413$	3.38902	0
$u=\ 0.120769+0.518709I$ $a=-0.34492-2.82501I$ $b=-0.141050-1.048610I$	$-5.66880+1.84316I$	$-9.44552-3.91915I$
$u=\ 0.120769-0.518709I$ $a=-0.34492+2.82501I$ $b=-0.141050+1.048610I$	$-5.66880-1.84316I$	$-9.44552+3.91915I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.45659 + 0.18746I$ $a = -0.183193 - 0.880025I$ $b = -0.350456 - 0.614358I$	$4.26834 + 6.86007I$	0
$u = 1.45659 - 0.18746I$ $a = -0.183193 + 0.880025I$ $b = -0.350456 + 0.614358I$	$4.26834 - 6.86007I$	0
$u = 1.40740 + 0.44440I$ $a = -0.547365 + 0.331992I$ $b = 1.19130 + 1.15658I$	$2.04431 + 1.84068I$	0
$u = 1.40740 - 0.44440I$ $a = -0.547365 - 0.331992I$ $b = 1.19130 - 1.15658I$	$2.04431 - 1.84068I$	0
$u = -0.306066 + 0.424951I$ $a = -0.816894 + 0.202983I$ $b = -0.749449 + 0.484112I$	$-1.81388 + 1.13467I$	$-1.97456 + 1.07001I$
$u = -0.306066 - 0.424951I$ $a = -0.816894 - 0.202983I$ $b = -0.749449 - 0.484112I$	$-1.81388 - 1.13467I$	$-1.97456 - 1.07001I$
$u = -1.49125 + 0.15772I$ $a = 0.263366 - 0.575561I$ $b = 0.010884 - 0.381896I$	$7.75318 - 2.83746I$	0
$u = -1.49125 - 0.15772I$ $a = 0.263366 + 0.575561I$ $b = 0.010884 + 0.381896I$	$7.75318 + 2.83746I$	0
$u = -1.49131 + 0.32149I$ $a = 0.669876 + 0.507097I$ $b = -1.25550 + 1.58180I$	$5.07523 - 8.06301I$	0
$u = -1.49131 - 0.32149I$ $a = 0.669876 - 0.507097I$ $b = -1.25550 - 1.58180I$	$5.07523 + 8.06301I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.51652 + 0.30390I$ $a = -0.792548 + 0.567740I$ $b = 1.12600 + 1.82198I$	$0.21259 + 13.48700I$	0
$u = 1.51652 - 0.30390I$ $a = -0.792548 - 0.567740I$ $b = 1.12600 - 1.82198I$	$0.21259 - 13.48700I$	0
$u = 0.408894$ $a = 2.87090$ $b = 1.71340$	-3.87788	10.5720
$u = -0.149951 + 0.342435I$ $a = -0.63819 - 2.59470I$ $b = -0.423633 - 1.031480I$	$-1.76218 - 0.65074I$	$-4.85797 - 0.85968I$
$u = -0.149951 - 0.342435I$ $a = -0.63819 + 2.59470I$ $b = -0.423633 + 1.031480I$	$-1.76218 + 0.65074I$	$-4.85797 + 0.85968I$
$u = 1.70127$ $a = -0.463910$ $b = 0.718631$	3.00176	0

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$u^{36} + 11u^{35} + \cdots - 6u + 1$
c_2	$u^{36} - 15u^{35} + \cdots - 172u + 43$
c_3, c_{10}	$u^{36} - u^{35} + \cdots - 14u + 1$
c_4, c_7, c_8	$u^{36} - 3u^{35} + \cdots + 3u^2 + 1$
c_5	$u^{36} - 3u^{35} + \cdots - 4u + 1$
c_6, c_9	$u^{36} + u^{35} + \cdots + 3u^2 + 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$y^{36} - 151y^{35} + \cdots - 50y + 1$
c_2	$y^{36} - 127y^{35} + \cdots + 24510y + 1849$
c_3, c_{10}	$y^{36} - 23y^{35} + \cdots - 134y + 1$
c_4, c_7, c_8	$y^{36} - 35y^{35} + \cdots + 6y + 1$
c_5	$y^{36} - 3y^{35} + \cdots - 46y + 1$
c_6, c_9	$y^{36} - 27y^{35} + \cdots + 6y + 1$