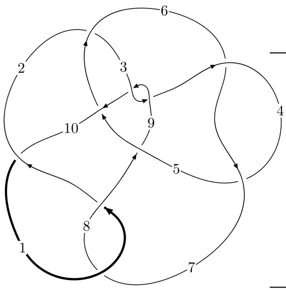
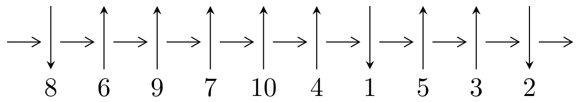
10_{95} $(K10a_{47})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 8.96446 \times 10^{23} u^{44} + 2.57403 \times 10^{24} u^{43} + \cdots + 1.49180 \times 10^{24} b - 2.95907 \times 10^{24},$$
$$4.30182 \times 10^{23} u^{44} - 4.12569 \times 10^{23} u^{43} + \cdots + 1.49180 \times 10^{24} a - 2.73959 \times 10^{24},\ u^{45} + 3u^{44} + \cdots + u - 1\rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 45 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.

$$I_1^u = \langle 8.96\times10^{23}u^{44} + 2.57\times10^{24}u^{43} + \cdots + 1.49\times10^{24}b - 2.96\times10^{24},\ 4.30\times10^{23}u^{44} - 4.13\times10^{23}u^{43} + \cdots + 1.49\times10^{24}a - 2.74\times10^{24},\ u^{45} + 3u^{44} + \cdots + u - 1\rangle$$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.288363u^{44} + 0.276557u^{43} + \cdots + 0.412316u + 1.83643 \\ -0.600914u^{44} - 1.72545u^{43} + \cdots - 2.12140u + 1.98355 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.0671751u^{44} + 1.09025u^{43} + \cdots - 2.21453u - 0.832290 \\ -0.804689u^{44} - 0.830750u^{43} + \cdots - 0.425124u - 0.467397 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.312551u^{44} + 2.00200u^{43} + \cdots + 2.53371u - 0.147124 \\ -0.600914u^{44} - 1.72545u^{43} + \cdots - 2.12140u + 1.98355 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.288365u^{44} - 1.82727u^{43} + \cdots + 8.33577u - 2.61780 \\ -0.424947u^{44} - 1.44593u^{43} + \cdots + 1.13180u + 1.08626 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.356125u^{44} + 0.136618u^{43} + \cdots + 0.683378u + 1.78645 \\ -0.372015u^{44} - 1.13507u^{43} + \cdots - 1.48899u + 1.65337 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^3 \\ u^5 - u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{1840027360774652855185796}{497267882038552304129821}u^{44} + \frac{5206472892461535459511464}{497267882038552304129821}u^{43} + \cdots + \frac{6384381127166345545265888}{497267882038552304129821}u + \frac{1812220984371614733066410}{497267882038552304129821}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{45} + 3u^{44} + \cdots + u - 1$
c_2	$u^{45} + 5u^{44} + \cdots - 13u - 1$
c_3, c_9	$u^{45} + 3u^{44} + \cdots + u - 1$
c_4, c_6	$u^{45} + u^{44} + \cdots + u - 1$
c_5	$u^{45} + u^{44} + \cdots - 11u - 1$
c_8	$u^{45} + 15u^{44} + \cdots - 3u - 19$
c_{10}	$u^{45} + 17u^{44} + \cdots + 7u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{45} - 17y^{44} + \cdots + 7y - 1$
c_2	$y^{45} + 107y^{44} + \cdots + 67y - 1$
c_3, c_9	$y^{45} + 27y^{44} + \cdots + 7y - 1$
c_4, c_6	$y^{45} - 29y^{44} + \cdots + 11y - 1$
c_5	$y^{45} + 3y^{44} + \cdots + 35y - 1$
c_8	$y^{45} - 109y^{44} + \cdots - 4893y - 361$
c_{10}	$y^{45} + 23y^{44} + \cdots - 9y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.748239 + 0.647910I$ $a = 0.403124 - 0.160622I$ $b = 1.37017 + 0.68085I$	$2.77602 + 1.02408I$	$8.38347 - 2.46029I$
$u = 0.748239 - 0.647910I$ $a = 0.403124 + 0.160622I$ $b = 1.37017 - 0.68085I$	$2.77602 - 1.02408I$	$8.38347 + 2.46029I$
$u = 0.890787 + 0.518116I$ $a = 1.09640 - 9.24121I$ $b = 0.973792 - 0.005327I$	$-0.05995 - 2.03640I$	$72.2714 - 11.7565I$
$u = 0.890787 - 0.518116I$ $a = 1.09640 + 9.24121I$ $b = 0.973792 + 0.005327I$	$-0.05995 + 2.03640I$	$72.2714 + 11.7565I$
$u = -0.820939 + 0.635302I$ $a = -0.253305 + 0.931796I$ $b = 1.53924 - 0.11682I$	$3.59336 + 2.30367I$	$9.15329 - 4.83627I$
$u = -0.820939 - 0.635302I$ $a = -0.253305 - 0.931796I$ $b = 1.53924 + 0.11682I$	$3.59336 - 2.30367I$	$9.15329 + 4.83627I$
$u = -0.361068 + 1.000170I$ $a = 0.351371 - 0.166844I$ $b = -1.073530 - 0.231341I$	$1.45040 + 4.21015I$	$6.88936 - 10.02965I$
$u = -0.361068 - 1.000170I$ $a = 0.351371 + 0.166844I$ $b = -1.073530 + 0.231341I$	$1.45040 - 4.21015I$	$6.88936 + 10.02965I$
$u = -0.557888 + 0.909903I$ $a = 0.316144 + 0.172524I$ $b = -1.34079 + 0.52835I$	$2.54824 - 9.10382I$	$6.03739 + 5.00782I$
$u = -0.557888 - 0.909903I$ $a = 0.316144 - 0.172524I$ $b = -1.34079 - 0.52835I$	$2.54824 + 9.10382I$	$6.03739 - 5.00782I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.072010 + 0.068561I$ $a = 0.19682 + 1.79320I$ $b = -0.418872 + 0.891403I$	$-6.58324 + 2.11321I$	$-3.96108 - 1.31750I$
$u = 1.072010 - 0.068561I$ $a = 0.19682 - 1.79320I$ $b = -0.418872 - 0.891403I$	$-6.58324 - 2.11321I$	$-3.96108 + 1.31750I$
$u = -0.872155 + 0.629846I$ $a = -0.47083 + 1.68692I$ $b = 1.44587 + 0.31074I$	$3.43558 + 2.64632I$	$8.92608 - 1.75211I$
$u = -0.872155 - 0.629846I$ $a = -0.47083 - 1.68692I$ $b = 1.44587 - 0.31074I$	$3.43558 - 2.64632I$	$8.92608 + 1.75211I$
$u = 0.571052 + 0.957365I$ $a = 0.327326 - 0.019797I$ $b = -1.263400 - 0.274130I$	$6.25575 + 2.94445I$	$10.14429 - 3.30426I$
$u = 0.571052 - 0.957365I$ $a = 0.327326 + 0.019797I$ $b = -1.263400 + 0.274130I$	$6.25575 - 2.94445I$	$10.14429 + 3.30426I$
$u = -0.709910 + 0.510430I$ $a = 1.252380 - 0.161269I$ $b = 0.133311 + 0.176064I$	$-1.41864 + 2.15221I$	$1.64608 - 3.55734I$
$u = -0.709910 - 0.510430I$ $a = 1.252380 + 0.161269I$ $b = 0.133311 - 0.176064I$	$-1.41864 - 2.15221I$	$1.64608 + 3.55734I$
$u = 0.924885 + 0.643162I$ $a = -0.39182 - 2.00941I$ $b = 1.26534 - 0.87677I$	$2.24019 - 6.06663I$	$6.70582 + 8.72697I$
$u = 0.924885 - 0.643162I$ $a = -0.39182 + 2.00941I$ $b = 1.26534 + 0.87677I$	$2.24019 + 6.06663I$	$6.70582 - 8.72697I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.534755 + 0.678754I$ $a = 0.767210 - 0.462986I$ $b = 0.035693 - 1.094520I$	$-1.69173 - 3.44354I$	$3.21684 + 3.47170I$
$u = -0.534755 - 0.678754I$ $a = 0.767210 + 0.462986I$ $b = 0.035693 + 1.094520I$	$-1.69173 + 3.44354I$	$3.21684 - 3.47170I$
$u = 0.998803 + 0.587519I$ $a = -0.342999 - 1.152970I$ $b = 0.166118 - 0.793978I$	$0.23783 - 4.75380I$	$4.82148 + 5.65384I$
$u = 0.998803 - 0.587519I$ $a = -0.342999 + 1.152970I$ $b = 0.166118 + 0.793978I$	$0.23783 + 4.75380I$	$4.82148 - 5.65384I$
$u = -1.104260 + 0.360208I$ $a = -0.027368 - 0.429100I$ $b = -0.496724 - 0.062269I$	$-1.84860 + 1.33338I$	$-2.80190 - 1.06220I$
$u = -1.104260 - 0.360208I$ $a = -0.027368 + 0.429100I$ $b = -0.496724 + 0.062269I$	$-1.84860 - 1.33338I$	$-2.80190 + 1.06220I$
$u = 0.619855 + 0.543779I$ $a = 0.786545 + 0.529917I$ $b = 0.472137 + 0.557307I$	$1.389240 + 0.109846I$	$8.39253 - 0.28934I$
$u = 0.619855 - 0.543779I$ $a = 0.786545 - 0.529917I$ $b = 0.472137 - 0.557307I$	$1.389240 - 0.109846I$	$8.39253 + 0.28934I$
$u = -1.030460 + 0.624781I$ $a = -1.00464 + 1.07941I$ $b = -0.116882 + 1.280150I$	$-3.11090 + 8.51494I$	$1.12145 - 8.02650I$
$u = -1.030460 - 0.624781I$ $a = -1.00464 - 1.07941I$ $b = -0.116882 - 1.280150I$	$-3.11090 - 8.51494I$	$1.12145 + 8.02650I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.158790+0.358173I$ $a=-0.174096-0.464304I$ $b=-0.614061-0.062005I$	$-1.84651+1.33386I$	$-3.76295-1.40019I$
$u=-1.158790-0.358173I$ $a=-0.174096+0.464304I$ $b=-0.614061+0.062005I$	$-1.84651-1.33386I$	$-3.76295+1.40019I$
$u=1.230990+0.092992I$ $a=-0.98270+1.11992I$ $b=-1.097490+0.546794I$	$-4.42636-7.34032I$	$0.+6.70183I$
$u=1.230990-0.092992I$ $a=-0.98270-1.11992I$ $b=-1.097490-0.546794I$	$-4.42636+7.34032I$	$0.-6.70183I$
$u=-0.734453+0.170610I$ $a=2.20693+0.55929I$ $b=0.600244+0.443962I$	$-1.43818+2.33862I$	$0.15315-3.89068I$
$u=-0.734453-0.170610I$ $a=2.20693-0.55929I$ $b=0.600244-0.443962I$	$-1.43818-2.33862I$	$0.15315+3.89068I$
$u=-1.099700+0.703989I$ $a=0.29033-1.93516I$ $b=-1.36790-0.61478I$	$0.8834+15.0479I$	$0.-8.99569I$
$u=-1.099700-0.703989I$ $a=0.29033+1.93516I$ $b=-1.36790+0.61478I$	$0.8834-15.0479I$	$0.+8.99569I$
$u=1.106830+0.724523I$ $a=0.16343+1.57481I$ $b=-1.291930+0.408785I$	$4.59210-9.07926I$	0
$u=1.106830-0.724523I$ $a=0.16343-1.57481I$ $b=-1.291930-0.408785I$	$4.59210+9.07926I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.031500 + 0.835190I$ $a = 0.505754 - 0.770326I$ $b = -0.907193 - 0.175723I$	$-1.04837 + 3.34425I$	$0. - 10.76892I$
$u = -1.031500 - 0.835190I$ $a = 0.505754 + 0.770326I$ $b = -0.907193 + 0.175723I$	$-1.04837 - 3.34425I$	$0. + 10.76892I$
$u = 0.406402$ $a = 1.83709$ $b = 0.702503$	1.02583	10.4140
$u = 0.149228 + 0.309881I$ $a = 2.06545 - 0.10916I$ $b = 1.135600 - 0.215122I$	$0.959713 - 1.013710I$	$4.02329 - 0.70963I$
$u = 0.149228 - 0.309881I$ $a = 2.06545 + 0.10916I$ $b = 1.135600 + 0.215122I$	$0.959713 + 1.013710I$	$4.02329 + 0.70963I$

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{45} + 3u^{44} + \cdots + u - 1$
c_2	$u^{45} + 5u^{44} + \cdots - 13u - 1$
c_3, c_9	$u^{45} + 3u^{44} + \cdots + u - 1$
c_4, c_6	$u^{45} + u^{44} + \cdots + u - 1$
c_5	$u^{45} + u^{44} + \cdots - 11u - 1$
c_8	$u^{45} + 15u^{44} + \cdots - 3u - 19$
c_{10}	$u^{45} + 17u^{44} + \cdots + 7u + 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{45} - 17y^{44} + \cdots + 7y - 1$
c_2	$y^{45} + 107y^{44} + \cdots + 67y - 1$
c_3, c_9	$y^{45} + 27y^{44} + \cdots + 7y - 1$
c_4, c_6	$y^{45} - 29y^{44} + \cdots + 11y - 1$
c_5	$y^{45} + 3y^{44} + \cdots + 35y - 1$
c_8	$y^{45} - 109y^{44} + \cdots - 4893y - 361$
c_{10}	$y^{45} + 23y^{44} + \cdots - 9y - 1$