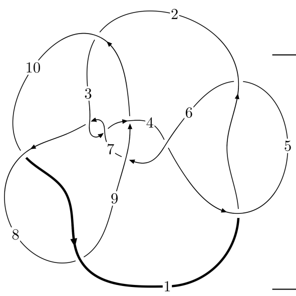
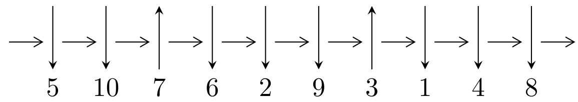
10_{92} $(K10a_{46})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 6.14745 \times 10^{22} u^{43} + 1.68640 \times 10^{23} u^{42} + \cdots + 4.10626 \times 10^{23} b + 5.65855 \times 10^{23},$$
$$- 1.07830 \times 10^{23} u^{43} - 7.28908 \times 10^{23} u^{42} + \cdots + 4.10626 \times 10^{23} a - 8.55134 \times 10^{23},\ u^{44} + 3u^{43} + \cdots + 4u -$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 44 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.

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$\boldsymbol{I_1^u = \langle 6.15\times 10^{22}u^{43}+1.69\times 10^{23}u^{42}+\cdots+4.11\times 10^{23}b+5.66\times 10^{23},\ -1.08\times 10^{23}u^{43}-7.29\times 10^{23}u^{42}+\cdots+4.11\times 10^{23}a-8.55\times 10^{23},\ u^{44}+3u^{43}+\cdots+4u+1\rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} -u \\ -u^3+u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.262600u^{43}+1.77511u^{42}+\cdots+2.77682u+2.08251 \\ -0.149709u^{43}-0.410691u^{42}+\cdots-1.54325u-1.37803 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.412309u^{43}+2.18580u^{42}+\cdots+4.32007u+3.46054 \\ -0.149709u^{43}-0.410691u^{42}+\cdots-1.54325u-1.37803 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u^3 \\ u^5-u^3+u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.313341u^{43}+1.90111u^{42}+\cdots+3.81262u+3.26735 \\ -0.334825u^{43}-0.772241u^{42}+\cdots-1.55972u-1.27556 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1.07273u^{43}+1.65129u^{42}+\cdots+0.120109u-0.207377 \\ -0.415470u^{43}-0.355187u^{42}+\cdots-2.46813u+0.118486 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.942379u^{43}+5.64956u^{42}+\cdots-4.55203u+0.322394 \\ -0.801791u^{43}-2.31053u^{42}+\cdots-2.19230u-1.54713 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{2998080411059792049943 96}{1368753881035498771446 43}u^{43} - \frac{84870295962321659877957 6}{13687538810354987714464 3}u^{42} + \cdots - \frac{270522118347252717078 12}{195536268719356967349 49}u - \frac{135123529861902204152933 8}{136875388103549877144643}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{44} + 3u^{43} + \cdots + 4u + 1$
c_2	$u^{44} + 11u^{43} + \cdots + 2050u - 319$
c_3, c_7	$u^{44} + 3u^{43} + \cdots + 4u + 1$
c_4	$u^{44} + 19u^{43} + \cdots + 10u + 1$
c_6	$u^{44} + u^{43} + \cdots - 28u + 7$
c_8, c_{10}	$u^{44} - u^{43} + \cdots - 16u - 1$
c_9	$u^{44} + u^{43} + \cdots + 10u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{44} - 19y^{43} + \cdots - 10y + 1$
c_2	$y^{44} - 107y^{43} + \cdots - 1901234y + 101761$
c_3, c_7	$y^{44} + 33y^{43} + \cdots - 10y + 1$
c_4	$y^{44} + 13y^{43} + \cdots - 10y + 1$
c_6	$y^{44} + 77y^{43} + \cdots - 1078y + 49$
c_8, c_{10}	$y^{44} - 31y^{43} + \cdots - 122y + 1$
c_9	$y^{44} - 3y^{43} + \cdots - 50y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.363757 + 0.931801I$ $a = 0.574314 + 0.152690I$ $b = 1.051760 - 0.377630I$	$0.93507 + 3.55591I$	$-4.27504 - 5.80144I$
$u = 0.363757 - 0.931801I$ $a = 0.574314 - 0.152690I$ $b = 1.051760 + 0.377630I$	$0.93507 - 3.55591I$	$-4.27504 + 5.80144I$
$u = 0.918123 + 0.411939I$ $a = -2.57013 + 0.48465I$ $b = -1.186550 + 0.092828I$	$-2.84407 - 1.62243I$	$-4.14582 + 4.55154I$
$u = 0.918123 - 0.411939I$ $a = -2.57013 - 0.48465I$ $b = -1.186550 - 0.092828I$	$-2.84407 + 1.62243I$	$-4.14582 - 4.55154I$
$u = -0.441228 + 0.915243I$ $a = 0.398119 - 0.217535I$ $b = 1.34117 + 0.51864I$	$-4.18962 - 9.08760I$	$-8.08222 + 5.03295I$
$u = -0.441228 - 0.915243I$ $a = 0.398119 + 0.217535I$ $b = 1.34117 - 0.51864I$	$-4.18962 + 9.08760I$	$-8.08222 - 5.03295I$
$u = 0.822616 + 0.487506I$ $a = 2.41823 - 5.79626I$ $b = -0.962457 - 0.015339I$	$-3.21593 - 2.04361I$	$-52.4053 - 14.7990I$
$u = 0.822616 - 0.487506I$ $a = 2.41823 + 5.79626I$ $b = -0.962457 + 0.015339I$	$-3.21593 + 2.04361I$	$-52.4053 + 14.7990I$
$u = 0.614573 + 0.715877I$ $a = 0.648178 - 0.462248I$ $b = 0.352533 + 0.684267I$	$3.04550 - 0.49268I$	$-0.12697 + 2.02865I$
$u = 0.614573 - 0.715877I$ $a = 0.648178 + 0.462248I$ $b = 0.352533 - 0.684267I$	$3.04550 + 0.49268I$	$-0.12697 - 2.02865I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \quad 0.925118 + 0.134958I$ $a = \quad 0.268380 + 0.914669I$ $b = -0.612800 + 0.910777I$	$-4.44447 + 2.34717I$	$-13.36025 - 3.31347I$
$u = \quad 0.925118 - 0.134958I$ $a = \quad 0.268380 - 0.914669I$ $b = -0.612800 - 0.910777I$	$-4.44447 - 2.34717I$	$-13.36025 + 3.31347I$
$u = -1.006040 + 0.358502I$ $a = -1.64888 - 1.39073I$ $b = -1.72272 - 0.34047I$	$-7.32531 + 1.01598I$	$-16.3773 - 1.5947I$
$u = -1.006040 - 0.358502I$ $a = -1.64888 + 1.39073I$ $b = -1.72272 + 0.34047I$	$-7.32531 - 1.01598I$	$-16.3773 + 1.5947I$
$u = -0.923394 + 0.545105I$ $a = \quad 0.892868 - 0.453112I$ $b = -0.1085090 + 0.0372733I$	$-1.80992 + 2.06451I$	$-8.33506 - 2.58557I$
$u = -0.923394 - 0.545105I$ $a = \quad 0.892868 + 0.453112I$ $b = -0.1085090 - 0.0372733I$	$-1.80992 - 2.06451I$	$-8.33506 + 2.58557I$
$u = -0.975696 + 0.495658I$ $a = -1.58974 - 1.81328I$ $b = -1.045760 + 0.398242I$	$-2.16678 + 3.71837I$	$-7.18001 - 4.79801I$
$u = -0.975696 - 0.495658I$ $a = -1.58974 + 1.81328I$ $b = -1.045760 - 0.398242I$	$-2.16678 - 3.71837I$	$-7.18001 + 4.79801I$
$u = \quad 1.036360 + 0.480257I$ $a = -1.99121 + 1.16563I$ $b = -1.49224 - 0.83332I$	$-6.51425 - 5.38013I$	$-14.5306 + 6.8865I$
$u = \quad 1.036360 - 0.480257I$ $a = -1.99121 - 1.16563I$ $b = -1.49224 + 0.83332I$	$-6.51425 + 5.38013I$	$-14.5306 - 6.8865I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.509147+0.682421I$ $a=\ \ 0.748061+0.578286I$ $b=\ \ 0.040117-1.082950I$	$-0.05957-3.45708I$	$-5.25205+3.26607I$
$u=-0.509147-0.682421I$ $a=\ \ 0.748061-0.578286I$ $b=\ \ 0.040117+1.082950I$	$-0.05957+3.45708I$	$-5.25205-3.26607I$
$u=\ \ 1.005360+0.620641I$ $a=-0.379272-0.130111I$ $b=\ \ 0.152753-0.830976I$	$1.86298-4.63552I$	$-2.63874+4.34296I$
$u=\ \ 1.005360-0.620641I$ $a=-0.379272+0.130111I$ $b=\ \ 0.152753+0.830976I$	$1.86298+4.63552I$	$-2.63874-4.34296I$
$u=-0.630444+1.006790I$ $a=\ \ 0.515707+0.251954I$ $b=\ \ 1.091770-0.179141I$	$-3.10073+4.10126I$	$-10.8949-11.0256I$
$u=-0.630444-1.006790I$ $a=\ \ 0.515707-0.251954I$ $b=\ \ 1.091770+0.179141I$	$-3.10073-4.10126I$	$-10.8949+11.0256I$
$u=-1.043400+0.593727I$ $a=-1.020580+0.191405I$ $b=-0.060111+1.315520I$	$-1.62830+8.40873I$	$-8.69535-8.26732I$
$u=-1.043400-0.593727I$ $a=-1.020580-0.191405I$ $b=-0.060111-1.315520I$	$-1.62830-8.40873I$	$-8.69535+8.26732I$
$u=-0.677683+0.298861I$ $a=\ \ 0.440425+0.337840I$ $b=-0.653219-0.324097I$	$-1.057920+0.069554I$	$-6.35507+0.09655I$
$u=-0.677683-0.298861I$ $a=\ \ 0.440425-0.337840I$ $b=-0.653219+0.324097I$	$-1.057920-0.069554I$	$-6.35507-0.09655I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.279390 + 0.043840I$ $a = 2.10525 - 0.31617I$ $b = 1.39686 - 0.31540I$	$-10.47240 + 6.33527I$	$-14.2462 - 4.4391I$
$u = 1.279390 - 0.043840I$ $a = 2.10525 + 0.31617I$ $b = 1.39686 + 0.31540I$	$-10.47240 - 6.33527I$	$-14.2462 + 4.4391I$
$u = -1.141180 + 0.657704I$ $a = 1.77431 + 1.29931I$ $b = 1.42524 - 0.56997I$	$-6.3237 + 14.8554I$	$-10.29546 - 8.59158I$
$u = -1.141180 - 0.657704I$ $a = 1.77431 - 1.29931I$ $b = 1.42524 + 0.56997I$	$-6.3237 - 14.8554I$	$-10.29546 + 8.59158I$
$u = 1.161630 + 0.643448I$ $a = 1.67963 - 1.04513I$ $b = 1.220440 + 0.442442I$	$-1.45853 - 9.28321I$	$-6.00000 + 7.80258I$
$u = 1.161630 - 0.643448I$ $a = 1.67963 + 1.04513I$ $b = 1.220440 - 0.442442I$	$-1.45853 + 9.28321I$	$-6.00000 - 7.80258I$
$u = -0.354494 + 0.530250I$ $a = 1.064660 - 0.138642I$ $b = 0.127335 + 0.413006I$	$-0.54354 + 1.79828I$	$-3.49440 - 3.19528I$
$u = -0.354494 - 0.530250I$ $a = 1.064660 + 0.138642I$ $b = 0.127335 - 0.413006I$	$-0.54354 - 1.79828I$	$-3.49440 + 3.19528I$
$u = -1.38103$ $a = 1.82513$ $b = 1.18122$	-5.51547	-19.3220
$u = -1.23100 + 0.72005I$ $a = 1.18995 + 0.81794I$ $b = 1.144640 - 0.060756I$	$-5.05123 + 2.61575I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.23100 - 0.72005I$ $a = 1.18995 - 0.81794I$ $b = 1.144640 + 0.060756I$	$-5.05123 - 2.61575I$	0
$u = 0.206659 + 0.446571I$ $a = 1.139280 - 0.241376I$ $b = -1.248780 + 0.511630I$	$-4.48946 + 1.55296I$	$-10.02584 - 1.50927I$
$u = 0.206659 - 0.446571I$ $a = 1.139280 + 0.241376I$ $b = -1.248780 - 0.511630I$	$-4.48946 - 1.55296I$	$-10.02584 + 1.50927I$
$u = -0.418735$ $a = 0.859759$ $b = -0.684180$	-1.08485	-8.34540

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{44} + 3u^{43} + \cdots + 4u + 1$
c_2	$u^{44} + 11u^{43} + \cdots + 2050u - 319$
c_3, c_7	$u^{44} + 3u^{43} + \cdots + 4u + 1$
c_4	$u^{44} + 19u^{43} + \cdots + 10u + 1$
c_6	$u^{44} + u^{43} + \cdots - 28u + 7$
c_8, c_{10}	$u^{44} - u^{43} + \cdots - 16u - 1$
c_9	$u^{44} + u^{43} + \cdots + 10u - 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{44} - 19y^{43} + \cdots - 10y + 1$
c_2	$y^{44} - 107y^{43} + \cdots - 1901234y + 101761$
c_3, c_7	$y^{44} + 33y^{43} + \cdots - 10y + 1$
c_4	$y^{44} + 13y^{43} + \cdots - 10y + 1$
c_6	$y^{44} + 77y^{43} + \cdots - 1078y + 49$
c_8, c_{10}	$y^{44} - 31y^{43} + \cdots - 122y + 1$
c_9	$y^{44} - 3y^{43} + \cdots - 50y + 1$