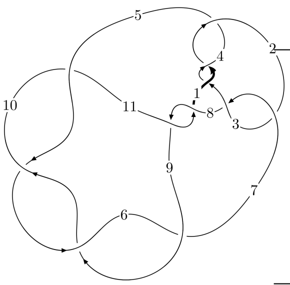
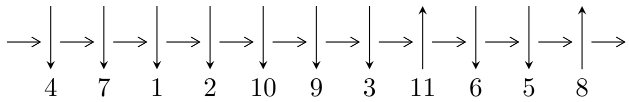
$11a_{260}$ ($K11a_{260}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{34} - u^{33} + \cdots + b + 1,\ -u^{37} + 2u^{36} + \cdots + a - 1,\ u^{38} - 2u^{37} + \cdots + u + 1\rangle$$
$$I_2^u = \langle b + 1,\ -u^3 + u^2 + a - 3u + 1,\ u^4 - u^3 + 3u^2 - 2u + 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 42 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.

$$I_1^u = \langle u^{34} - u^{33} + \cdots + b + 1,\ -u^{37} + 2u^{36} + \cdots + a - 1,\ u^{38} - 2u^{37} + \cdots + u + 1\rangle$$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^{37} - 2u^{36} + \cdots + 5u + 1 \\ -u^{34} + u^{33} + \cdots - u - 1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^{37} - 2u^{36} + \cdots + 4u + 1 \\ -u^{34} + u^{33} + \cdots - 2u - 1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^9 - 4u^7 - 3u^5 + 2u^3 - u \\ u^9 + 5u^7 + 7u^5 + 2u^3 + u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^{37} - 2u^{36} + \cdots + 8u^2 + u \\ -u^{35} - u^{34} + \cdots - 2u - 1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^5 - 2u^3 + u \\ u^5 + 3u^3 + u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^5 - 2u^3 + u \\ u^5 + 3u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -u^{37} + 2u^{36} + \cdots + 8u - 5$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_4	$u^{38} - 5u^{37} + \cdots + 3u - 1$
c_2, c_7	$u^{38} - u^{37} + \cdots - 8u - 16$
c_5, c_6, c_9 c_{10}	$u^{38} - 2u^{37} + \cdots + u + 1$
c_8, c_{11}	$u^{38} + 6u^{37} + \cdots + 93u + 19$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_4	$y^{38} - 39y^{37} + \cdots - 23y + 1$
c_2, c_7	$y^{38} - 27y^{37} + \cdots - 64y + 256$
c_5, c_6, c_9 c_{10}	$y^{38} + 42y^{37} + \cdots + 3y + 1$
c_8, c_{11}	$y^{38} + 30y^{37} + \cdots - 13361y + 361$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.331390 + 0.800737I$ $a = -1.08027 + 1.42658I$ $b = 1.43349 - 0.08457I$	$-4.40003 + 3.17772I$	$-9.24672 - 4.52124I$
$u = -0.331390 - 0.800737I$ $a = -1.08027 - 1.42658I$ $b = 1.43349 + 0.08457I$	$-4.40003 - 3.17772I$	$-9.24672 + 4.52124I$
$u = 0.632534 + 0.587679I$ $a = 0.72801 - 2.04747I$ $b = 1.54993 + 0.28338I$	$-10.96810 - 8.77029I$	$-12.03440 + 6.55590I$
$u = 0.632534 - 0.587679I$ $a = 0.72801 + 2.04747I$ $b = 1.54993 - 0.28338I$	$-10.96810 + 8.77029I$	$-12.03440 - 6.55590I$
$u = 0.595823 + 0.532540I$ $a = -0.88414 + 1.11716I$ $b = -0.536492 - 0.820187I$	$-4.14241 - 4.72017I$	$-10.42521 + 6.54233I$
$u = 0.595823 - 0.532540I$ $a = -0.88414 - 1.11716I$ $b = -0.536492 + 0.820187I$	$-4.14241 + 4.72017I$	$-10.42521 - 6.54233I$
$u = -0.607436 + 0.495757I$ $a = -1.52782 - 1.27199I$ $b = -1.46016 + 0.02727I$	$-6.41754 + 2.06753I$	$-11.71336 - 3.34688I$
$u = -0.607436 - 0.495757I$ $a = -1.52782 + 1.27199I$ $b = -1.46016 - 0.02727I$	$-6.41754 - 2.06753I$	$-11.71336 + 3.34688I$
$u = 0.670848 + 0.404516I$ $a = 0.817417 - 0.255182I$ $b = 1.56238 - 0.24922I$	$-11.51120 + 4.37869I$	$-13.39153 - 0.68267I$
$u = 0.670848 - 0.404516I$ $a = 0.817417 + 0.255182I$ $b = 1.56238 + 0.24922I$	$-11.51120 - 4.37869I$	$-13.39153 + 0.68267I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.603069 + 0.453875I$ $a = 0.323964 - 0.069070I$ $b = -0.604946 + 0.776470I$	$-4.37423 + 0.63202I$	$-11.49824 + 0.19498I$
$u = 0.603069 - 0.453875I$ $a = 0.323964 + 0.069070I$ $b = -0.604946 - 0.776470I$	$-4.37423 - 0.63202I$	$-11.49824 - 0.19498I$
$u = -0.458515 + 0.496866I$ $a = 0.735714 + 0.425841I$ $b = 0.295812 - 0.100934I$	$-0.58212 + 1.61412I$	$-3.79024 - 4.58395I$
$u = -0.458515 - 0.496866I$ $a = 0.735714 - 0.425841I$ $b = 0.295812 + 0.100934I$	$-0.58212 - 1.61412I$	$-3.79024 + 4.58395I$
$u = -0.166029 + 0.605237I$ $a = 0.54999 - 1.37311I$ $b = -0.197084 + 0.433714I$	$0.92221 + 1.54825I$	$-1.51822 - 6.63292I$
$u = -0.166029 - 0.605237I$ $a = 0.54999 + 1.37311I$ $b = -0.197084 - 0.433714I$	$0.92221 - 1.54825I$	$-1.51822 + 6.63292I$
$u = -0.599131$ $a = 0.814584$ $b = 1.47212$	-6.92604	-14.5410
$u = 0.19248 + 1.43542I$ $a = -0.557197 - 0.105570I$ $b = 1.57803 - 0.19884I$	$-5.62113 + 1.29652I$	0
$u = 0.19248 - 1.43542I$ $a = -0.557197 + 0.105570I$ $b = 1.57803 + 0.19884I$	$-5.62113 - 1.29652I$	0
$u = 0.16452 + 1.49701I$ $a = 0.870156 - 0.798495I$ $b = -0.700266 + 0.746539I$	$2.00271 - 2.06597I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.16452 - 1.49701I$ $a = 0.870156 + 0.798495I$ $b = -0.700266 - 0.746539I$	$2.00271 + 2.06597I$	0
$u = 0.02138 + 1.51704I$ $a = 0.79272 + 1.61255I$ $b = -1.125240 - 0.315445I$	$5.07701 - 1.17536I$	0
$u = 0.02138 - 1.51704I$ $a = 0.79272 - 1.61255I$ $b = -1.125240 + 0.315445I$	$5.07701 + 1.17536I$	0
$u = -0.17777 + 1.51557I$ $a = -0.154126 - 1.301400I$ $b = -1.46693 + 0.08311I$	$0.19906 + 4.87289I$	0
$u = -0.17777 - 1.51557I$ $a = -0.154126 + 1.301400I$ $b = -1.46693 - 0.08311I$	$0.19906 - 4.87289I$	0
$u = -0.12286 + 1.53872I$ $a = 0.329499 + 0.682733I$ $b = 0.371714 - 0.234405I$	$6.26465 + 3.65085I$	0
$u = -0.12286 - 1.53872I$ $a = 0.329499 - 0.682733I$ $b = 0.371714 + 0.234405I$	$6.26465 - 3.65085I$	0
$u = 0.17843 + 1.53412I$ $a = -0.32146 + 1.73410I$ $b = -0.481260 - 0.864252I$	$2.69845 - 7.51312I$	0
$u = 0.17843 - 1.53412I$ $a = -0.32146 - 1.73410I$ $b = -0.481260 + 0.864252I$	$2.69845 + 7.51312I$	0
$u = -0.03636 + 1.55804I$ $a = 0.36918 - 1.51241I$ $b = -0.071818 + 0.599117I$	$8.24732 + 2.22241I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.03636 - 1.55804I$ $a = 0.36918 + 1.51241I$ $b = -0.071818 - 0.599117I$	$8.24732 - 2.22241I$	0
$u = 0.160891 + 0.403134I$ $a = -0.03733 + 2.61389I$ $b = -1.072260 - 0.128378I$	$-1.45280 - 0.68265I$	$-5.04350 - 1.82049I$
$u = 0.160891 - 0.403134I$ $a = -0.03733 - 2.61389I$ $b = -1.072260 + 0.128378I$	$-1.45280 + 0.68265I$	$-5.04350 + 1.82049I$
$u = 0.19856 + 1.55611I$ $a = -0.54782 - 2.02596I$ $b = 1.53547 + 0.31265I$	$-3.85806 - 11.81890I$	0
$u = 0.19856 - 1.55611I$ $a = -0.54782 + 2.02596I$ $b = 1.53547 - 0.31265I$	$-3.85806 + 11.81890I$	0
$u = -0.07622 + 1.60929I$ $a = -1.71521 + 1.01252I$ $b = 1.362500 - 0.126997I$	$3.79825 + 4.60582I$	0
$u = -0.07622 - 1.60929I$ $a = -1.71521 - 1.01252I$ $b = 1.362500 + 0.126997I$	$3.79825 - 4.60582I$	0
$u = -0.284804$ $a = 0.802881$ $b = -0.417854$	-0.765706	-13.9120

II. $\boldsymbol{I_2^u = \langle b+1,\ -u^3+u^2+a-3u+1,\ u^4-u^3+3u^2-2u+1\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^3-u^2+3u-1 \\ -1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^3-u^2+3u \\ -1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^3-u^2+3u-1 \\ -1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u \\ u^3+u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^2+1 \\ u^3-u^2+2u-1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^2+1 \\ u^3-u^2+2u-1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^2+1 \\ u^3-u^2+2u-1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 5u^3-5u^2+14u-16$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u-1)^4$
c_2, c_7	u^4
c_3, c_4	$(u+1)^4$
c_5, c_6	$u^4 - u^3 + 3u^2 - 2u + 1$
c_8	$u^4 - u^3 + u^2 + 1$
c_9, c_{10}	$u^4 + u^3 + 3u^2 + 2u + 1$
c_{11}	$u^4 + u^3 + u^2 + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_4	$(y-1)^4$
c_2, c_7	y^4
c_5, c_6, c_9 c_{10}	$y^4 + 5y^3 + 7y^2 + 2y + 1$
c_8, c_{11}	$y^4 + y^3 + 3y^2 + 2y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.395123 + 0.506844I$ $a = 0.043315 + 1.227190I$ $b = -1.00000$	$-1.85594 - 1.41510I$	$-11.17855 + 5.62908I$
$u = 0.395123 - 0.506844I$ $a = 0.043315 - 1.227190I$ $b = -1.00000$	$-1.85594 + 1.41510I$	$-11.17855 - 5.62908I$
$u = 0.10488 + 1.55249I$ $a = 0.956685 + 0.641200I$ $b = -1.00000$	$5.14581 - 3.16396I$	$-6.32145 + 1.65351I$
$u = 0.10488 - 1.55249I$ $a = 0.956685 - 0.641200I$ $b = -1.00000$	$5.14581 + 3.16396I$	$-6.32145 - 1.65351I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^4)(u^{38}-5u^{37}+\cdots+3u-1)$
c_2, c_7	$u^4(u^{38}-u^{37}+\cdots-8u-16)$
c_3, c_4	$((u+1)^4)(u^{38}-5u^{37}+\cdots+3u-1)$
c_5, c_6	$(u^4-u^3+3u^2-2u+1)(u^{38}-2u^{37}+\cdots+u+1)$
c_8	$(u^4-u^3+u^2+1)(u^{38}+6u^{37}+\cdots+93u+19)$
c_9, c_{10}	$(u^4+u^3+3u^2+2u+1)(u^{38}-2u^{37}+\cdots+u+1)$
c_{11}	$(u^4+u^3+u^2+1)(u^{38}+6u^{37}+\cdots+93u+19)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_4	$((y-1)^4)(y^{38} - 39y^{37} + \cdots - 23y + 1)$
c_2, c_7	$y^4(y^{38} - 27y^{37} + \cdots - 64y + 256)$
c_5, c_6, c_9 c_{10}	$(y^4 + 5y^3 + 7y^2 + 2y + 1)(y^{38} + 42y^{37} + \cdots + 3y + 1)$
c_8, c_{11}	$(y^4 + y^3 + 3y^2 + 2y + 1)(y^{38} + 30y^{37} + \cdots - 13361y + 361)$