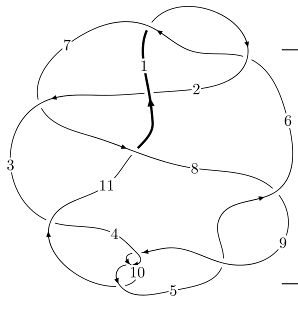
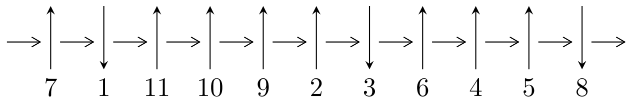
$11a_{193}$ ($K11a_{193}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{47} + u^{46} + \cdots - 4u^3 + 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 47 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. $I_1^u = \langle u^{47} + u^{46} + \cdots - 4u^3 + 1 \rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^3 + 2u \\ -u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^2 + 1 \\ u^4 - 2u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^5 + 2u^3 - u \\ u^7 - 3u^5 + 2u^3 + u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u^6 - 3u^4 + 2u^2 + 1 \\ u^6 - 2u^4 + u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^{16} + 7u^{14} - 19u^{12} + 22u^{10} - 3u^8 - 14u^6 + 6u^4 + 2u^2 + 1 \\ -u^{16} + 6u^{14} - 14u^{12} + 14u^{10} - 2u^8 - 6u^6 + 4u^4 - 2u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u^{39} - 16u^{37} + \cdots + 24u^5 + 6u^3 \\ u^{39} - 15u^{37} + \cdots - 3u^5 + u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^{18} - 7u^{16} + 20u^{14} - 27u^{12} + 11u^{10} + 13u^8 - 14u^6 + 3u^2 + 1 \\ -u^{20} + 8u^{18} - 26u^{16} + 40u^{14} - 19u^{12} - 24u^{10} + 30u^8 - 9u^4 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^{18} - 7u^{16} + 20u^{14} - 27u^{12} + 11u^{10} + 13u^8 - 14u^6 + 3u^2 + 1 \\ -u^{20} + 8u^{18} - 26u^{16} + 40u^{14} - 19u^{12} - 24u^{10} + 30u^8 - 9u^4 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^{44} + 68u^{42} + \cdots - 8u^2 + 2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{47} + u^{46} + \cdots - 2u^4 - 1$
c_2	$u^{47} + 23u^{46} + \cdots - 4u^2 - 1$
c_3, c_5, c_8	$u^{47} + 3u^{46} + \cdots + 8u + 1$
c_4, c_9, c_{10}	$u^{47} - u^{46} + \cdots - 4u^3 - 1$
c_7	$u^{47} - u^{46} + \cdots - 22u - 53$
c_{11}	$u^{47} + 5u^{46} + \cdots - 64u - 16$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{47} + 23y^{46} + \cdots - 4y^2 - 1$
c_2	$y^{47} + 3y^{46} + \cdots - 8y - 1$
c_3, c_5, c_8	$y^{47} + 47y^{46} + \cdots - 8y - 1$
c_4, c_9, c_{10}	$y^{47} - 37y^{46} + \cdots - 16y^2 - 1$
c_7	$y^{47} - 17y^{46} + \cdots + 47124y - 2809$
c_{11}	$y^{47} - 5y^{46} + \cdots + 1312y - 256$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.006280 + 0.120689I$	$-0.91501 + 3.60507I$	$1.64705 - 4.50144I$
$u = 1.006280 - 0.120689I$	$-0.91501 - 3.60507I$	$1.64705 + 4.50144I$
$u = -1.10074$	1.86864	5.66480
$u = 0.030039 + 0.875142I$	$-10.56620 + 0.61135I$	$-3.63402 + 0.19416I$
$u = 0.030039 - 0.875142I$	$-10.56620 - 0.61135I$	$-3.63402 - 0.19416I$
$u = 0.055754 + 0.872511I$	$-8.79586 + 8.79339I$	$-1.19946 - 6.11283I$
$u = 0.055754 - 0.872511I$	$-8.79586 - 8.79339I$	$-1.19946 + 6.11283I$
$u = -0.047289 + 0.862249I$	$-6.19361 - 3.85394I$	$1.82254 + 2.54256I$
$u = -0.047289 - 0.862249I$	$-6.19361 + 3.85394I$	$1.82254 - 2.54256I$
$u = -0.021231 + 0.815572I$	$-3.88334 - 2.31182I$	$2.62267 + 3.54472I$
$u = -0.021231 - 0.815572I$	$-3.88334 + 2.31182I$	$2.62267 - 3.54472I$
$u = -1.257110 + 0.182931I$	$1.02961 - 1.77431I$	0
$u = -1.257110 - 0.182931I$	$1.02961 + 1.77431I$	0
$u = 1.223180 + 0.419244I$	$-5.19614 - 4.16894I$	0
$u = 1.223180 - 0.419244I$	$-5.19614 + 4.16894I$	0
$u = -1.230390 + 0.406583I$	$-2.54267 - 0.69419I$	0
$u = -1.230390 - 0.406583I$	$-2.54267 + 0.69419I$	0
$u = -1.259550 + 0.357794I$	$-0.05039 - 1.90652I$	0
$u = -1.259550 - 0.357794I$	$-0.05039 + 1.90652I$	0
$u = 1.249070 + 0.416752I$	$-6.79512 + 4.01291I$	0
$u = 1.249070 - 0.416752I$	$-6.79512 - 4.01291I$	0
$u = 1.316370 + 0.096272I$	$5.85726 + 2.05767I$	0
$u = 1.316370 - 0.096272I$	$5.85726 - 2.05767I$	0
$u = -1.324170 + 0.059973I$	$4.48508 + 2.49902I$	0
$u = -1.324170 - 0.059973I$	$4.48508 - 2.49902I$	0
$u = 1.319560 + 0.153160I$	$5.16266 + 3.85903I$	0
$u = 1.319560 - 0.153160I$	$5.16266 - 3.85903I$	0
$u = 1.288740 + 0.366736I$	$0.19960 + 6.56847I$	0
$u = 1.288740 - 0.366736I$	$0.19960 - 6.56847I$	0
$u = -1.331010 + 0.174169I$	$3.09173 - 8.65002I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.331010 - 0.174169I$	$3.09173 + 8.65002I$	0
$u = -1.298060 + 0.405269I$	$-6.42755 - 5.19896I$	0
$u = -1.298060 - 0.405269I$	$-6.42755 + 5.19896I$	0
$u = 1.308420 + 0.393753I$	$-1.96046 + 8.36038I$	0
$u = 1.308420 - 0.393753I$	$-1.96046 - 8.36038I$	0
$u = -1.315440 + 0.399117I$	$-4.51106 - 13.35320I$	0
$u = -1.315440 - 0.399117I$	$-4.51106 + 13.35320I$	0
$u = 0.283978 + 0.527411I$	$-1.92558 + 6.21305I$	$1.17116 - 8.71697I$
$u = 0.283978 - 0.527411I$	$-1.92558 - 6.21305I$	$1.17116 + 8.71697I$
$u = 0.146756 + 0.548854I$	$-3.20832 - 0.82330I$	$-2.58409 - 0.88162I$
$u = 0.146756 - 0.548854I$	$-3.20832 + 0.82330I$	$-2.58409 + 0.88162I$
$u = 0.519306 + 0.197953I$	$-0.86762 - 3.28146I$	$4.49365 + 2.23360I$
$u = 0.519306 - 0.197953I$	$-0.86762 + 3.28146I$	$4.49365 - 2.23360I$
$u = -0.266858 + 0.458418I$	$0.27118 - 1.71840I$	$4.99592 + 5.33344I$
$u = -0.266858 - 0.458418I$	$0.27118 + 1.71840I$	$4.99592 - 5.33344I$
$u = -0.345961 + 0.277574I$	$0.861649 - 0.739192I$	$8.37308 + 5.15460I$
$u = -0.345961 - 0.277574I$	$0.861649 + 0.739192I$	$8.37308 - 5.15460I$

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{47} + u^{46} + \cdots - 2u^4 - 1$
c_2	$u^{47} + 23u^{46} + \cdots - 4u^2 - 1$
c_3, c_5, c_8	$u^{47} + 3u^{46} + \cdots + 8u + 1$
c_4, c_9, c_{10}	$u^{47} - u^{46} + \cdots - 4u^3 - 1$
c_7	$u^{47} - u^{46} + \cdots - 22u - 53$
c_{11}	$u^{47} + 5u^{46} + \cdots - 64u - 16$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{47} + 23y^{46} + \cdots - 4y^2 - 1$
c_2	$y^{47} + 3y^{46} + \cdots - 8y - 1$
c_3, c_5, c_8	$y^{47} + 47y^{46} + \cdots - 8y - 1$
c_4, c_9, c_{10}	$y^{47} - 37y^{46} + \cdots - 16y^2 - 1$
c_7	$y^{47} - 17y^{46} + \cdots + 47124y - 2809$
c_{11}	$y^{47} - 5y^{46} + \cdots + 1312y - 256$