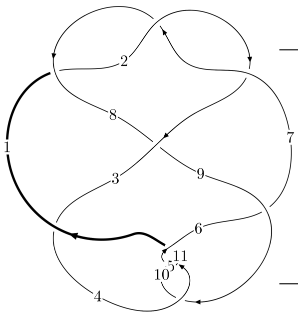
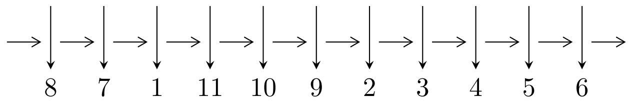
$11a_{337}$ $(K11a_{337})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$$3,7 \underset{c_2}{\longrightarrow} 2 \underset{c_7}{\longrightarrow} 8 \underset{c_8}{\longrightarrow} 9 \underset{c_1}{\longrightarrow} 1 \underset{c_3}{\longrightarrow} 4 \underset{c_9}{\longrightarrow} 10 \underset{c_6}{\longrightarrow} 6 \underset{c_5}{\longrightarrow} 5 \underset{c_{11}}{\longrightarrow} 11 \gg c_4, c_{10}$$

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

$$I_1^u = \langle u^{44} + u^{43} + \cdots + 5u^2 - 1 \rangle$$

* 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.

I. $I_1^u = \langle u^{44} + u^{43} + \cdots + 5u^2 - 1 \rangle$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

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

$$a_8 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^3 - 2u \\ u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^2 + 1 \\ -u^4 - 2u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u^6 - 3u^4 - 2u^2 + 1 \\ u^8 + 4u^6 + 4u^4 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^{17} + 8u^{15} + 25u^{13} + 36u^{11} + 19u^9 - 4u^7 - 2u^5 + 2u^3 - 3u \\ -u^{19} - 9u^{17} - 32u^{15} - 55u^{13} - 43u^{11} - 9u^9 - 4u^5 + u^3 + u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u^7 + 4u^5 + 4u^3 \\ -u^7 - 3u^5 - 2u^3 + u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^{43} + 20u^{41} + \cdots - 14u^5 + 13u^3 \\ -u^{43} - u^{42} + \cdots - 5u^2 + 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^{18} - 9u^{16} - 32u^{14} - 55u^{12} - 43u^{10} - 9u^8 - 4u^4 + u^2 + 1 \\ u^{18} + 8u^{16} + 25u^{14} + 36u^{12} + 19u^{10} - 4u^8 - 2u^6 + 2u^4 - 3u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^{18} - 9u^{16} - 32u^{14} - 55u^{12} - 43u^{10} - 9u^8 - 4u^4 + u^2 + 1 \\ u^{18} + 8u^{16} + 25u^{14} + 36u^{12} + 19u^{10} - 4u^8 - 2u^6 + 2u^4 - 3u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^{42} - 4u^{41} + \cdots - 20u - 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_7	$u^{44} - u^{43} + \cdots + 5u^2 - 1$
c_3, c_6	$u^{44} - 7u^{43} + \cdots - 96u + 17$
c_4, c_5, c_{10}	$u^{44} + u^{43} + \cdots - 2u - 1$
c_8	$u^{44} + u^{43} + \cdots + 20u - 53$
c_9, c_{11}	$u^{44} - u^{43} + \cdots + 5u^2 - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_7	$y^{44} + 41y^{43} + \cdots - 10y + 1$
c_3, c_6	$y^{44} + 33y^{43} + \cdots - 1770y + 289$
c_4, c_5, c_{10}	$y^{44} + 37y^{43} + \cdots - 10y + 1$
c_8	$y^{44} + 13y^{43} + \cdots + 8822y + 2809$
c_9, c_{11}	$y^{44} - 23y^{43} + \cdots - 10y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \quad 0.173491 + 1.180500I$	$2.34143 + 0.79685I$	$-9.60388 + 0.I$
$u = \quad 0.173491 - 1.180500I$	$2.34143 - 0.79685I$	$-9.60388 + 0.I$
$u = -0.684801 + 0.378128I$	$3.75424 + 9.27677I$	$-8.25553 - 7.97070I$
$u = -0.684801 - 0.378128I$	$3.75424 - 9.27677I$	$-8.25553 + 7.97070I$
$u = \quad 0.621068 + 0.446082I$	$8.22635 - 2.04073I$	$-3.94848 + 3.44114I$
$u = \quad 0.621068 - 0.446082I$	$8.22635 + 2.04073I$	$-3.94848 - 3.44114I$
$u = -0.201180 + 1.222030I$	$-1.22666 + 3.11008I$	$-13.45910 - 3.92090I$
$u = -0.201180 - 1.222030I$	$-1.22666 - 3.11008I$	$-13.45910 + 3.92090I$
$u = \quad 0.668653 + 0.360931I$	$-1.01882 - 5.34555I$	$-13.0771 + 6.6770I$
$u = \quad 0.668653 - 0.360931I$	$-1.01882 + 5.34555I$	$-13.0771 - 6.6770I$
$u = -0.531587 + 0.532708I$	$4.39098 - 5.19546I$	$-6.57369 + 1.97435I$
$u = -0.531587 - 0.532708I$	$4.39098 + 5.19546I$	$-6.57369 - 1.97435I$
$u = \quad 0.221809 + 1.250810I$	$2.95833 - 7.06778I$	0
$u = \quad 0.221809 - 1.250810I$	$2.95833 + 7.06778I$	0
$u = -0.628212 + 0.325456I$	$1.70221 + 1.51503I$	$-10.15673 - 3.08750I$
$u = -0.628212 - 0.325456I$	$1.70221 - 1.51503I$	$-10.15673 + 3.08750I$
$u = \quad 0.051758 + 1.295040I$	$3.37520 - 1.28237I$	0
$u = \quad 0.051758 - 1.295040I$	$3.37520 + 1.28237I$	0
$u = \quad 0.491173 + 0.503611I$	$-0.35195 + 1.46105I$	$-11.42087 - 0.49778I$
$u = \quad 0.491173 - 0.503611I$	$-0.35195 - 1.46105I$	$-11.42087 + 0.49778I$
$u = -0.558081 + 0.379170I$	$1.91831 + 1.74747I$	$-7.74964 - 4.82540I$
$u = -0.558081 - 0.379170I$	$1.91831 - 1.74747I$	$-7.74964 + 4.82540I$
$u = \quad 0.651243 + 0.045491I$	$-1.01454 - 3.87980I$	$-14.3154 + 4.0831I$
$u = \quad 0.651243 - 0.045491I$	$-1.01454 + 3.87980I$	$-14.3154 - 4.0831I$
$u = -0.645744$	-4.92194	-19.0830
$u = -0.075458 + 1.385010I$	$8.25893 + 3.09453I$	0
$u = -0.075458 - 1.385010I$	$8.25893 - 3.09453I$	0
$u = -0.314368 + 0.485643I$	$2.57671 + 1.81798I$	$-7.01819 - 3.75999I$
$u = -0.314368 - 0.485643I$	$2.57671 - 1.81798I$	$-7.01819 + 3.75999I$
$u = -0.23908 + 1.43322I$	$7.36078 + 4.69095I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.23908 - 1.43322I$	$7.36078 - 4.69095I$	0
$u = -0.21140 + 1.43954I$	$7.75201 + 4.59084I$	0
$u = -0.21140 - 1.43954I$	$7.75201 - 4.59084I$	0
$u = \quad 0.18092 + 1.45176I$	$5.84316 - 0.98909I$	0
$u = \quad 0.18092 - 1.45176I$	$5.84316 + 0.98909I$	0
$u = \quad 0.25323 + 1.44536I$	$4.78546 - 8.71482I$	0
$u = \quad 0.25323 - 1.44536I$	$4.78546 + 8.71482I$	0
$u = -0.25789 + 1.45367I$	$9.6461 + 12.7191I$	0
$u = -0.25789 - 1.45367I$	$9.6461 - 12.7191I$	0
$u = -0.17884 + 1.46973I$	$10.80910 - 2.64998I$	0
$u = -0.17884 - 1.46973I$	$10.80910 + 2.64998I$	0
$u = \quad 0.22386 + 1.46753I$	$14.3940 - 5.1268I$	0
$u = \quad 0.22386 - 1.46753I$	$14.3940 + 5.1268I$	0
$u = \quad 0.333131$	-0.518275	-19.1920

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_2, c_7	$u^{44} - u^{43} + \cdots + 5u^2 - 1$
c_3, c_6	$u^{44} - 7u^{43} + \cdots - 96u + 17$
c_4, c_5, c_{10}	$u^{44} + u^{43} + \cdots - 2u - 1$
c_8	$u^{44} + u^{43} + \cdots + 20u - 53$
c_9, c_{11}	$u^{44} - u^{43} + \cdots + 5u^2 - 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_7	$y^{44} + 41y^{43} + \cdots - 10y + 1$
c_3, c_6	$y^{44} + 33y^{43} + \cdots - 1770y + 289$
c_4, c_5, c_{10}	$y^{44} + 37y^{43} + \cdots - 10y + 1$
c_8	$y^{44} + 13y^{43} + \cdots + 8822y + 2809$
c_9, c_{11}	$y^{44} - 23y^{43} + \cdots - 10y + 1$