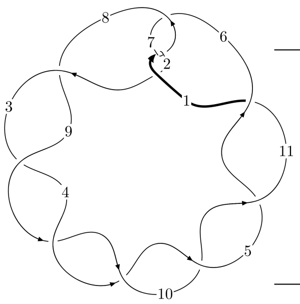
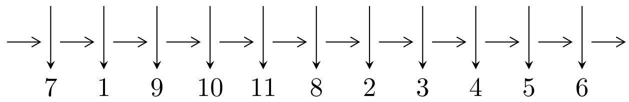
$11a_{234}$ ($K11a_{234}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{18} - u^{17} + \cdots + 3u + 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 18 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. $\boldsymbol{I_1^u = \langle u^{18} - u^{17} - 13u^{16} + 12u^{15} + 68u^{14} - 57u^{13} - 183u^{12} + 136u^{11} + 269u^{10} - 169u^9 - 213u^8 + 98u^7 + 88u^6 - 14u^5 - 20u^4 - 6u^3 - u^2 + 3u + 1\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^3 - 2u \\ u^5 - 3u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u^{10} - 7u^8 + 16u^6 - 13u^4 + u^2 + 1 \\ u^{12} - 8u^{10} + 22u^8 - 24u^6 + 9u^4 - 2u^2 \end{pmatrix}$$

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

$$a_7 = \begin{pmatrix} u^{10} - 7u^8 + 16u^6 - 13u^4 + u^2 + 1 \\ u^{10} - 6u^8 + 11u^6 - 8u^4 + 3u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^{10} - 7u^8 + 16u^6 - 13u^4 + u^2 + 1 \\ u^{10} - 6u^8 + 11u^6 - 8u^4 + 3u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= -4u^{14} + 44u^{12} - 184u^{10} + 364u^8 + 4u^7 - 344u^6 - 24u^5 + 136u^4 + 40u^3 - 16u^2 - 16u - 22$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{18} + u^{17} + \cdots + 3u + 1$
c_2, c_6	$u^{18} + 7u^{17} + \cdots + 11u + 1$
c_3, c_4, c_5 c_8, c_9, c_{10} c_{11}	$u^{18} - u^{17} + \cdots + 3u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{18} - 7y^{17} + \cdots - 11y + 1$
c_2, c_6	$y^{18} + 9y^{17} + \cdots - 47y + 1$
c_3, c_4, c_5 c_8, c_9, c_{10} c_{11}	$y^{18} - 27y^{17} + \cdots - 11y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \quad 0.802264$	-4.07451	-21.8940
$u = \quad 0.682462 + 0.319779I$	$-0.72908 - 4.95076I$	$-15.7381 + 7.5517I$
$u = \quad 0.682462 - 0.319779I$	$-0.72908 + 4.95076I$	$-15.7381 - 7.5517I$
$u = \quad 1.293990 + 0.094892I$	$-5.94680 - 1.32320I$	$-15.7100 + 0.4777I$
$u = \quad 1.293990 - 0.094892I$	$-5.94680 + 1.32320I$	$-15.7100 - 0.4777I$
$u = -1.345790 + 0.141741I$	$-7.44415 + 6.58593I$	$-17.8634 - 5.4114I$
$u = -1.345790 - 0.141741I$	$-7.44415 - 6.58593I$	$-17.8634 + 5.4114I$
$u = -0.540515 + 0.292466I$	$0.102284 + 0.099203I$	$-13.71777 - 2.29447I$
$u = -0.540515 - 0.292466I$	$0.102284 - 0.099203I$	$-13.71777 + 2.29447I$
$u = -1.39228$	-11.4338	-21.8520
$u = -0.061930 + 0.448593I$	$1.53103 + 2.40291I$	$-8.85929 - 4.25520I$
$u = -0.061930 - 0.448593I$	$1.53103 - 2.40291I$	$-8.85929 + 4.25520I$
$u = -0.325737$	-0.531842	-18.6180
$u = -1.81666 + 0.02246I$	$-17.5190 + 1.8647I$	$-15.9411 - 0.0828I$
$u = -1.81666 - 0.02246I$	$-17.5190 - 1.8647I$	$-15.9411 + 0.0828I$
$u = \quad 1.82734 + 0.03524I$	$-19.2732 - 7.4400I$	$-18.1912 + 4.5032I$
$u = \quad 1.82734 - 0.03524I$	$-19.2732 + 7.4400I$	$-18.1912 - 4.5032I$
$u = \quad 1.83796$	15.9019	-21.5940

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{18} + u^{17} + \cdots + 3u + 1$
c_2, c_6	$u^{18} + 7u^{17} + \cdots + 11u + 1$
c_3, c_4, c_5 c_8, c_9, c_{10} c_{11}	$u^{18} - u^{17} + \cdots + 3u + 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{18} - 7y^{17} + \cdots - 11y + 1$
c_2, c_6	$y^{18} + 9y^{17} + \cdots - 47y + 1$
c_3, c_4, c_5 c_8, c_9, c_{10} c_{11}	$y^{18} - 27y^{17} + \cdots - 11y + 1$