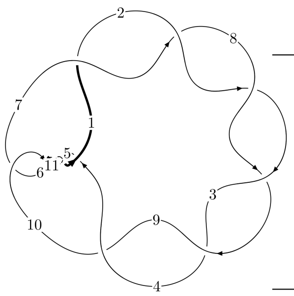
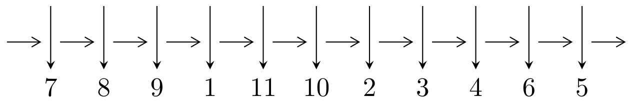
$11a_{358}$ $(K11a_{358})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{15} - u^{14} - 10u^{13} + 9u^{12} + 38u^{11} - 30u^{10} - 68u^9 + 47u^8 + 56u^7 - 38u^6 - 14u^5 + 16u^4 - 2u^3 - 4u^2 - 2u +$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 15 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. $\boldsymbol{I_1^u = \langle u^{15} - u^{14} - 10u^{13} + 9u^{12} + 38u^{11} - 30u^{10} - 68u^9 + 47u^8 + 56u^7 - 38u^6 - 14u^5 + 16u^4 - 2u^3 - 4u^2 - 2u + 1\rangle}$

(i) Arc colorings

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

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

$$a_{10} = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} u^9 - 6u^7 + 11u^5 - 6u^3 - u \\ u^9 - 5u^7 + 7u^5 - 4u^3 + u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u^8 - 5u^6 + 7u^4 - 4u^2 + 1 \\ u^{10} - 6u^8 + 11u^6 - 6u^4 - u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^{14} + 9u^{12} - 30u^{10} + 47u^8 - 38u^6 + 16u^4 - 4u^2 + 1 \\ -u^{14} - u^{13} + \cdots - u + 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^{14} + 9u^{12} - 30u^{10} + 47u^8 - 38u^6 + 16u^4 - 4u^2 + 1 \\ -u^{14} - u^{13} + \cdots - u + 1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= -4u^{12} + 36u^{10} - 116u^8 + 160u^6 - 4u^5 - 88u^4 + 16u^3 + 12u^2 - 12u - 18$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_3 c_7, c_8, c_9	$u^{15} + u^{14} + \cdots - 2u - 1$
c_4, c_5, c_6 c_{10}, c_{11}	$u^{15} + u^{14} + \cdots - 4u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_7, c_8, c_9	$y^{15} - 21y^{14} + \cdots + 12y - 1$
c_4, c_5, c_6 c_{10}, c_{11}	$y^{15} + 19y^{14} + \cdots + 12y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \ \ 1.099470 + 0.155167I$	$-2.65857 - 3.05774I$	$-13.13888 + 4.89846I$
$u = \ \ 1.099470 - 0.155167I$	$-2.65857 + 3.05774I$	$-13.13888 - 4.89846I$
$u = -1.11956$	-5.10471	-18.5740
$u = -1.107010 + 0.284981I$	$5.92954 + 4.61437I$	$-11.26027 - 3.61452I$
$u = -1.107010 - 0.284981I$	$5.92954 - 4.61437I$	$-11.26027 + 3.61452I$
$u = \ \ 0.352585 + 0.544994I$	$10.51140 - 1.78822I$	$-6.95572 + 3.41628I$
$u = \ \ 0.352585 - 0.544994I$	$10.51140 + 1.78822I$	$-6.95572 - 3.41628I$
$u = -0.321613 + 0.380072I$	$1.82113 + 1.28999I$	$-7.07135 - 5.74970I$
$u = -0.321613 - 0.380072I$	$1.82113 - 1.28999I$	$-7.07135 + 5.74970I$
$u = \ \ 0.316745$	-0.476358	-20.8370
$u = \ \ 1.75383 + 0.07111I$	$-4.34377 - 6.10280I$	$-12.08614 + 2.62288I$
$u = \ \ 1.75383 - 0.07111I$	$-4.34377 + 6.10280I$	$-12.08614 - 2.62288I$
$u = -1.75676 + 0.03538I$	$-13.01080 + 3.83507I$	$-13.8855 - 3.7296I$
$u = -1.75676 - 0.03538I$	$-13.01080 - 3.83507I$	$-13.8855 + 3.7296I$
$u = \ \ 1.76180$	-15.5909	-17.7930

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_2, c_3 c_7, c_8, c_9	$u^{15} + u^{14} + \cdots - 2u - 1$
c_4, c_5, c_6 c_{10}, c_{11}	$u^{15} + u^{14} + \cdots - 4u - 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_7, c_8, c_9	$y^{15} - 21y^{14} + \cdots + 12y - 1$
c_4, c_5, c_6 c_{10}, c_{11}	$y^{15} + 19y^{14} + \cdots + 12y - 1$