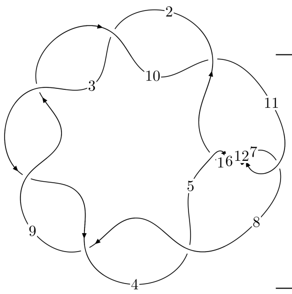
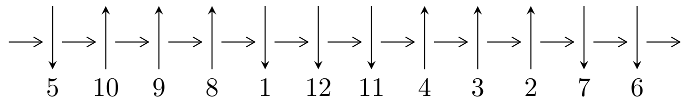
$12a_{1287}$ $(K12a_{1287})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$$6,12 \underset{c_6}{\rightarrow} 7 \underset{c_{12}}{\rightarrow} 1 \underset{c_5}{\rightarrow} 5 \underset{c_1}{\rightarrow} 2 \underset{c_{11}}{\rightarrow} 11 \underset{c_7}{\rightarrow} 8 \underset{c_4}{\rightarrow} 4 \underset{c_8}{\rightarrow} 9 \underset{c_3}{\rightarrow} 3 \underset{c_{10}}{\rightarrow} 10 \gg c_2, c_9$$

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. $\boldsymbol{I_1^u = \langle u^{18} + u^{17} + 13u^{16} + 12u^{15} + 68u^{14} + 57u^{13} + 183u^{12} + 136u^{11} + 269u^{10} + 171u^9 + 211u^8 + 108u^7 + 80u^6 + 28u^5 + 18u^4 + 4u^3 + 9u^2 + 3u + 1\rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u \\ u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^2+1 \\ -u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u^3-2u \\ u^3+u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u \\ u^3+u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^2+1 \\ u^4+2u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^8+5u^6+7u^4+4u^2+1 \\ u^{10}+6u^8+11u^6+6u^4-u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^{14}+9u^{12}+30u^{10}+47u^8+38u^6+16u^4+4u^2+1 \\ u^{16}+10u^{14}+38u^{12}+68u^{10}+56u^8+14u^6-2u^4+2u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^{15}-10u^{13}-38u^{11}-68u^9-56u^7-14u^5+2u^3-2u \\ u^{15}+9u^{13}+30u^{11}+47u^9+38u^7+16u^5+4u^3+u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^9-6u^7-11u^5-6u^3+u \\ u^9+5u^7+7u^5+4u^3+u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^{17} - 4u^{16} - 52u^{15} - 48u^{14} - 272u^{13} - 224u^{12} - 728u^{11} - 508u^{10} - 1044u^9 - 568u^8 - 756u^7 - 272u^6 - 224u^5 - 24u^4 - 36u^3 - 4u^2 - 36u - 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5, c_6 c_7, c_{11}, c_{12}	$u^{18} + u^{17} + \cdots + 3u + 1$
c_2, c_3, c_4 c_8, c_9, c_{10}	$u^{18} - u^{17} + \cdots - 3u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_7, c_8, c_9 c_{10}, c_{11}, c_{12}	$y^{18} + 25y^{17} + \cdots + 9y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.065042 + 1.102700I$	$4.46708 + 1.50403I$	$5.18929 - 4.54490I$
$u = -0.065042 - 1.102700I$	$4.46708 - 1.50403I$	$5.18929 + 4.54490I$
$u = \quad 0.205535 + 1.091440I$	$- 3.71533I$	$0. + 4.49065I$
$u = \quad 0.205535 - 1.091440I$	$3.71533I$	$0. - 4.49065I$
$u = -0.297449 + 1.108730I$	$-10.26620 + 4.74487I$	$-0.82347 - 3.51953I$
$u = -0.297449 - 1.108730I$	$-10.26620 - 4.74487I$	$-0.82347 + 3.51953I$
$u = -0.558415 + 0.355021I$	$-14.8588 + 1.8284I$	$-5.01513 - 3.29027I$
$u = -0.558415 - 0.355021I$	$-14.8588 - 1.8284I$	$-5.01513 + 3.29027I$
$u = \quad 0.451254 + 0.331288I$	$-4.46708 - 1.50403I$	$-5.18929 + 4.54490I$
$u = \quad 0.451254 - 0.331288I$	$-4.46708 + 1.50403I$	$-5.18929 - 4.54490I$
$u = -0.193258 + 0.297102I$	$0.701427I$	$0. - 9.96307I$
$u = -0.193258 - 0.297102I$	$- 0.701427I$	$0. + 9.96307I$
$u = \quad 0.04734 + 1.75261I$	$10.26620 - 4.74487I$	$0.82347 + 3.51953I$
$u = \quad 0.04734 - 1.75261I$	$10.26620 + 4.74487I$	$0.82347 - 3.51953I$
$u = -0.07535 + 1.75351I$	$6.30909I$	$0. - 2.51986I$
$u = -0.07535 - 1.75351I$	$- 6.30909I$	$0. + 2.51986I$
$u = -0.01462 + 1.75753I$	$14.8588 + 1.8284I$	$5.01513 - 3.29027I$
$u = -0.01462 - 1.75753I$	$14.8588 - 1.8284I$	$5.01513 + 3.29027I$

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_5, c_6 c_7, c_{11}, c_{12}	$u^{18} + u^{17} + \cdots + 3u + 1$
c_2, c_3, c_4 c_8, c_9, c_{10}	$u^{18} - u^{17} + \cdots - 3u + 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_7, c_8, c_9 c_{10}, c_{11}, c_{12}	$y^{18} + 25y^{17} + \cdots + 9y + 1$