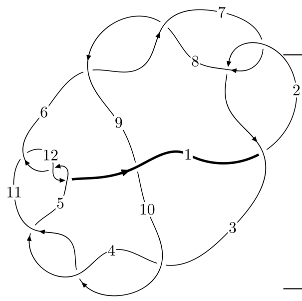
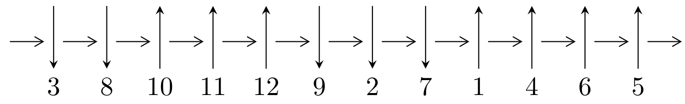
$12a_{0760}$ $(K12a_{0760})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{55} - u^{54} + \cdots + 2u^2 - 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 55 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. $I_1^u = \langle u^{55} - u^{54} + \cdots + 2u^2 - 1\rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^2 + 1 \\ -u^4 - 2u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^3 - 2u \\ u^3 + u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^6 - 3u^4 - 2u^2 + 1 \\ u^6 + 2u^4 + u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^9 + 4u^7 + 5u^5 - 3u \\ -u^9 - 3u^7 - 3u^5 + u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^{22} + 9u^{20} + \cdots - 2u^2 + 1 \\ -u^{22} - 8u^{20} + \cdots - 6u^4 - u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^{12} + 5u^{10} + 9u^8 + 4u^6 - 6u^4 - 5u^2 + 1 \\ -u^{14} - 6u^{12} - 13u^{10} - 10u^8 + 4u^6 + 8u^4 + u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u^{25} - 10u^{23} + \cdots + 10u^3 - u \\ u^{27} + 11u^{25} + \cdots - u^3 + u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^{38} + 15u^{36} + \cdots - 4u^2 + 1 \\ -u^{40} - 16u^{38} + \cdots + 8u^6 + 14u^4 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u^{54} - 4u^{53} + \cdots + 16u + 2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6, c_8	$u^{55} + 13u^{54} + \cdots + 4u + 1$
c_2, c_7	$u^{55} + u^{54} + \cdots + 2u^2 - 1$
c_3, c_4, c_{10}	$u^{55} + u^{54} + \cdots - 11u - 2$
c_5, c_{11}, c_{12}	$u^{55} - u^{54} + \cdots + 2u^2 - 1$
c_9	$u^{55} - 7u^{54} + \cdots - 20988u + 4921$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6, c_8	$y^{55} + 59y^{54} + \cdots - 36y - 1$
c_2, c_7	$y^{55} - 13y^{54} + \cdots + 4y - 1$
c_3, c_4, c_{10}	$y^{55} - 57y^{54} + \cdots - 91y - 4$
c_5, c_{11}, c_{12}	$y^{55} + 43y^{54} + \cdots + 4y - 1$
c_9	$y^{55} - 29y^{54} + \cdots + 402466656y - 24216241$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.886995+0.045862I$	$14.3413-2.3988I$	$10.05032+0.51244I$
$u=-0.886995-0.045862I$	$14.3413+2.3988I$	$10.05032-0.51244I$
$u=\ \ 0.885350+0.051007I$	$13.9632+8.8219I$	$9.36443-5.35751I$
$u=\ \ 0.885350-0.051007I$	$13.9632-8.8219I$	$9.36443+5.35751I$
$u=-0.864228+0.018685I$	$7.62020-1.13554I$	$10.36949+0.23646I$
$u=-0.864228-0.018685I$	$7.62020+1.13554I$	$10.36949-0.23646I$
$u=\ \ 0.079677+1.134880I$	$-1.86120+1.73369I$	$0.-4.71715I$
$u=\ \ 0.079677-1.134880I$	$-1.86120-1.73369I$	$0.+4.71715I$
$u=\ \ 0.856539+0.039628I$	$5.73343+5.16675I$	$5.71941-6.13440I$
$u=\ \ 0.856539-0.039628I$	$5.73343-5.16675I$	$5.71941+6.13440I$
$u=\ \ 0.124104+0.821653I$	$5.01486+3.10577I$	$5.36912-3.19461I$
$u=\ \ 0.124104-0.821653I$	$5.01486-3.10577I$	$5.36912+3.19461I$
$u=\ \ 0.830617$	3.31017	1.79020
$u=-0.134449+0.719876I$	$4.98402+3.12049I$	$4.83515-1.88613I$
$u=-0.134449-0.719876I$	$4.98402-3.12049I$	$4.83515+1.88613I$
$u=\ \ 0.140602+1.264520I$	$-3.20902+2.28111I$	0
$u=\ \ 0.140602-1.264520I$	$-3.20902-2.28111I$	0
$u=\ \ 0.398432+1.236750I$	$2.03590-0.66546I$	0
$u=\ \ 0.398432-1.236750I$	$2.03590+0.66546I$	0
$u=\ \ 0.431188+1.231470I$	$10.32020-4.11571I$	0
$u=\ \ 0.431188-1.231470I$	$10.32020+4.11571I$	0
$u=-0.091117+1.302380I$	$-6.13952-0.32984I$	0
$u=-0.091117-1.302380I$	$-6.13952+0.32984I$	0
$u=-0.431390+1.236960I$	$10.66320-2.31354I$	0
$u=-0.431390-1.236960I$	$10.66320+2.31354I$	0
$u=-0.151057+1.311240I$	$-5.41307-5.33764I$	0
$u=-0.151057-1.311240I$	$-5.41307+5.33764I$	0
$u=-0.404078+1.258270I$	$3.77988-3.40970I$	0
$u=-0.404078-1.258270I$	$3.77988+3.40970I$	0
$u=-0.010529+1.328650I$	$-0.68155+2.96620I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.010529-1.328650I$	$-0.68155-2.96620I$	0
$u=\ \ 0.375169+1.274910I$	$-0.65198+4.33276I$	0
$u=\ \ 0.375169-1.274910I$	$-0.65198-4.33276I$	0
$u=\ \ 0.207095+1.316430I$	$1.91268+2.83669I$	0
$u=\ \ 0.207095-1.316430I$	$1.91268-2.83669I$	0
$u=-0.199631+1.326110I$	$1.57882-9.00165I$	0
$u=-0.199631-1.326110I$	$1.57882+9.00165I$	0
$u=-0.399305+1.288770I$	$3.55054-5.66585I$	0
$u=-0.399305-1.288770I$	$3.55054+5.66585I$	0
$u=\ \ 0.391698+1.302460I$	$1.54641+9.64694I$	0
$u=\ \ 0.391698-1.302460I$	$1.54641-9.64694I$	0
$u=-0.577636+0.255967I$	$6.50085-6.27951I$	$7.73444+7.40899I$
$u=-0.577636-0.255967I$	$6.50085+6.27951I$	$7.73444-7.40899I$
$u=\ \ 0.585657+0.234755I$	$6.72459+0.04895I$	$8.43887-2.19191I$
$u=\ \ 0.585657-0.234755I$	$6.72459-0.04895I$	$8.43887+2.19191I$
$u=-0.410657+1.311660I$	$10.10380-7.04613I$	0
$u=-0.410657-1.311660I$	$10.10380+7.04613I$	0
$u=\ \ 0.408466+1.314810I$	$9.6974+13.4566I$	0
$u=\ \ 0.408466-1.314810I$	$9.6974-13.4566I$	0
$u=-0.449466+0.260084I$	$-0.59638-3.23489I$	$2.34241+9.68420I$
$u=-0.449466-0.260084I$	$-0.59638+3.23489I$	$2.34241-9.68420I$
$u=\ \ 0.435627+0.099986I$	$0.914015+0.263108I$	$10.61137-1.72545I$
$u=\ \ 0.435627-0.099986I$	$0.914015-0.263108I$	$10.61137+1.72545I$
$u=-0.224373+0.350383I$	$-1.27930+0.82968I$	$-2.41349-0.37291I$
$u=-0.224373-0.350383I$	$-1.27930-0.82968I$	$-2.41349+0.37291I$

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6, c_8	$u^{55} + 13u^{54} + \cdots + 4u + 1$
c_2, c_7	$u^{55} + u^{54} + \cdots + 2u^2 - 1$
c_3, c_4, c_{10}	$u^{55} + u^{54} + \cdots - 11u - 2$
c_5, c_{11}, c_{12}	$u^{55} - u^{54} + \cdots + 2u^2 - 1$
c_9	$u^{55} - 7u^{54} + \cdots - 20988u + 4921$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6, c_8	$y^{55} + 59y^{54} + \cdots - 36y - 1$
c_2, c_7	$y^{55} - 13y^{54} + \cdots + 4y - 1$
c_3, c_4, c_{10}	$y^{55} - 57y^{54} + \cdots - 91y - 4$
c_5, c_{11}, c_{12}	$y^{55} + 43y^{54} + \cdots + 4y - 1$
c_9	$y^{55} - 29y^{54} + \cdots + 402466656y - 24216241$