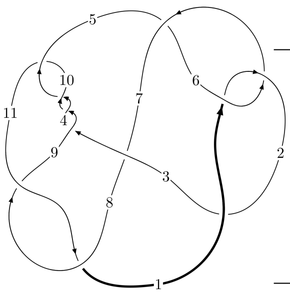
$11a_{191}$ $(K11a_{191})$



A knot diagram[1]

Linearized knot diagam

$\rightarrow \downarrow 6 \rightarrow \downarrow 1 \rightarrow \downarrow 9 \rightarrow \downarrow 10 \rightarrow \downarrow 7 \rightarrow \downarrow 2 \rightarrow \downarrow 3 \rightarrow \downarrow 11 \rightarrow \downarrow 4 \rightarrow \downarrow 5 \rightarrow \downarrow 8 \rightarrow$

Solving Sequence

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

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

$$I_1^u = \langle u^{41} + u^{40} + \cdots - 3u + 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 41 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. $\boldsymbol{I_1^u = \langle u^{41} + u^{40} + \cdots - 3u + 1 \rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^3 + 2u \\ -u^3 + u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^4 - 3u^2 + 1 \\ u^6 - 2u^4 - u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^8 - 5u^6 + 7u^4 - 2u^2 + 1 \\ u^{10} - 4u^8 + 3u^6 + 2u^4 + u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^{21} - 12u^{19} + \cdots - 8u^3 + 3u \\ u^{23} - 11u^{21} + \cdots - 3u^5 + u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^{12} - 7u^{10} + 17u^8 - 16u^6 + 6u^4 - 5u^2 + 1 \\ u^{12} - 6u^{10} + 12u^8 - 8u^6 + u^4 - 2u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u^{25} + 14u^{23} + \cdots + 10u^3 - u \\ -u^{25} + 13u^{23} + \cdots + 2u^3 + u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u^{25} + 14u^{23} + \cdots + 10u^3 - u \\ -u^{25} + 13u^{23} + \cdots + 2u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u^{39} - 88u^{37} + \cdots + 20u - 22$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{41} - u^{40} + \cdots - u - 1$
c_2, c_5	$u^{41} + 13u^{40} + \cdots + 9u + 1$
c_3, c_4, c_9 c_{10}	$u^{41} - u^{40} + \cdots - 3u - 1$
c_7	$u^{41} + u^{40} + \cdots - 27u - 13$
c_8, c_{11}	$u^{41} - 7u^{40} + \cdots + 33u - 23$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{41} - 13y^{40} + \cdots + 9y - 1$
c_2, c_5	$y^{41} + 31y^{40} + \cdots + 69y - 1$
c_3, c_4, c_9 c_{10}	$y^{41} - 45y^{40} + \cdots + 9y - 1$
c_7	$y^{41} + 7y^{40} + \cdots + 417y - 169$
c_8, c_{11}	$y^{41} + 27y^{40} + \cdots + 6701y - 529$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \ \ 0.578203 + 0.591978I$	$4.82587 - 9.58597I$	$-9.09685 + 8.79000I$
$u = \ \ 0.578203 - 0.591978I$	$4.82587 + 9.58597I$	$-9.09685 - 8.79000I$
$u = -0.560583 + 0.593399I$	$5.64442 + 3.73832I$	$-7.40652 - 3.76364I$
$u = -0.560583 - 0.593399I$	$5.64442 - 3.73832I$	$-7.40652 + 3.76364I$
$u = \ \ 0.566944 + 0.522538I$	$-0.95032 - 4.40767I$	$-14.5602 + 7.4521I$
$u = \ \ 0.566944 - 0.522538I$	$-0.95032 + 4.40767I$	$-14.5602 - 7.4521I$
$u = -0.727131 + 0.205192I$	$-0.35537 + 4.91287I$	$-14.9536 - 7.2181I$
$u = -0.727131 - 0.205192I$	$-0.35537 - 4.91287I$	$-14.9536 + 7.2181I$
$u = -0.416867 + 0.614275I$	$6.06764 + 0.37199I$	$-6.12023 - 2.74369I$
$u = -0.416867 - 0.614275I$	$6.06764 - 0.37199I$	$-6.12023 + 2.74369I$
$u = \ \ 0.394899 + 0.619383I$	$5.36506 + 5.46610I$	$-7.42623 - 2.57301I$
$u = \ \ 0.394899 - 0.619383I$	$5.36506 - 5.46610I$	$-7.42623 + 2.57301I$
$u = -0.490771 + 0.541723I$	$2.34343 + 1.87271I$	$-6.33668 - 4.08392I$
$u = -0.490771 - 0.541723I$	$2.34343 - 1.87271I$	$-6.33668 + 4.08392I$
$u = -0.728695$	-4.17004	-21.6690
$u = \ \ 0.639413 + 0.255948I$	$0.190368 + 0.170845I$	$-13.47533 + 2.06062I$
$u = \ \ 0.639413 - 0.255948I$	$0.190368 - 0.170845I$	$-13.47533 - 2.06062I$
$u = \ \ 0.373862 + 0.500528I$	$-0.399312 + 0.816647I$	$-12.47963 - 0.47721I$
$u = \ \ 0.373862 - 0.500528I$	$-0.399312 - 0.816647I$	$-12.47963 + 0.47721I$
$u = -1.45206 + 0.14818I$	$-0.55160 - 2.78997I$	0
$u = -1.45206 - 0.14818I$	$-0.55160 + 2.78997I$	0
$u = \ \ 1.46754 + 0.15667I$	$-0.01677 - 3.06881I$	0
$u = \ \ 1.46754 - 0.15667I$	$-0.01677 + 3.06881I$	0
$u = \ \ 0.039862 + 0.468366I$	$2.07509 - 2.62621I$	$-6.57273 + 3.48222I$
$u = \ \ 0.039862 - 0.468366I$	$2.07509 + 2.62621I$	$-6.57273 - 3.48222I$
$u = -1.52852 + 0.10506I$	$-6.77252 + 0.98297I$	0
$u = -1.52852 - 0.10506I$	$-6.77252 - 0.98297I$	0
$u = \ \ 1.52598 + 0.14865I$	$-4.35344 - 4.30283I$	0
$u = \ \ 1.52598 - 0.14865I$	$-4.35344 + 4.30283I$	0
$u = -1.55359 + 0.03904I$	$-7.11441 + 0.76394I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.55359 - 0.03904I$	$-7.11441 - 0.76394I$	0
$u = 1.54582 + 0.17878I$	$-1.34838 - 6.54087I$	0
$u = 1.54582 - 0.17878I$	$-1.34838 + 6.54087I$	0
$u = -1.55308 + 0.15321I$	$-8.04273 + 6.85644I$	0
$u = -1.55308 - 0.15321I$	$-8.04273 - 6.85644I$	0
$u = -1.55361 + 0.17968I$	$-2.26534 + 12.39950I$	0
$u = -1.55361 - 0.17968I$	$-2.26534 - 12.39950I$	0
$u = 1.58360 + 0.04172I$	$-8.17072 - 5.73177I$	0
$u = 1.58360 - 0.04172I$	$-8.17072 + 5.73177I$	0
$u = 1.58454$	-12.0025	0
$u = 0.384337$	-0.582535	-17.0140

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{41} - u^{40} + \cdots - u - 1$
c_2, c_5	$u^{41} + 13u^{40} + \cdots + 9u + 1$
c_3, c_4, c_9 c_{10}	$u^{41} - u^{40} + \cdots - 3u - 1$
c_7	$u^{41} + u^{40} + \cdots - 27u - 13$
c_8, c_{11}	$u^{41} - 7u^{40} + \cdots + 33u - 23$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{41} - 13y^{40} + \cdots + 9y - 1$
c_2, c_5	$y^{41} + 31y^{40} + \cdots + 69y - 1$
c_3, c_4, c_9 c_{10}	$y^{41} - 45y^{40} + \cdots + 9y - 1$
c_7	$y^{41} + 7y^{40} + \cdots + 417y - 169$
c_8, c_{11}	$y^{41} + 27y^{40} + \cdots + 6701y - 529$