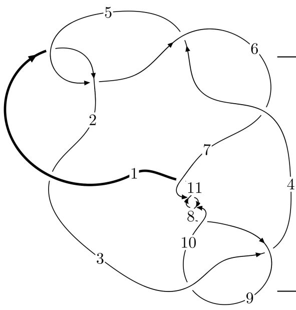
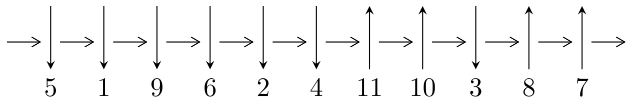
$11a_{154}$ ($K11a_{154}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{33} + u^{32} + \cdots + 3u + 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 33 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. $I_1^u = \langle u^{33} + u^{32} + \cdots + 3u + 1\rangle$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^2 + 1 \\ -u^2 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u^4 + u^2 + 1 \\ -u^4 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^6 + u^4 + 2u^2 + 1 \\ -u^6 - u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^8 + u^6 + 3u^4 + 2u^2 + 1 \\ -u^8 - 2u^4 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^{17} + 2u^{15} + 7u^{13} + 10u^{11} + 15u^9 + 14u^7 + 10u^5 + 4u^3 + u \\ -u^{17} - u^{15} - 5u^{13} - 4u^{11} - 7u^9 - 4u^7 - 2u^5 + u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u^{10} + u^8 + 4u^6 + 3u^4 + 3u^2 + 1 \\ -u^{12} - 2u^{10} - 4u^8 - 6u^6 - 3u^4 - 2u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u^{19} - 2u^{17} - 8u^{15} - 12u^{13} - 21u^{11} - 22u^9 - 20u^7 - 12u^5 - 5u^3 - 2u \\ u^{21} + 3u^{19} + \cdots + 3u^3 + u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u^{19} - 2u^{17} - 8u^{15} - 12u^{13} - 21u^{11} - 22u^9 - 20u^7 - 12u^5 - 5u^3 - 2u \\ u^{21} + 3u^{19} + \cdots + 3u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= -4u^{32} - 12u^{30} + 4u^{29} - 56u^{28} + 12u^{27} - 124u^{26} + 52u^{25} - 300u^{24} + 108u^{23} - 500u^{22} + 240u^{21} - 792u^{20} + 352u^{19} - 988u^{18} + 492u^{17} - 1084u^{16} + 492u^{15} - 988u^{14} + 432u^{13} - 736u^{12} + 264u^{11} - 484u^{10} + 116u^9 - 232u^8 + 44u^7 - 128u^6 - 48u^4 + 12u^3 - 20u^2 - 8u - 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{33} + u^{32} + \cdots - u + 1$
c_2, c_4, c_6	$u^{33} + 9u^{32} + \cdots + u + 1$
c_3, c_9	$u^{33} + u^{32} + \cdots + 3u + 1$
c_7, c_8, c_{10} c_{11}	$u^{33} - 7u^{32} + \cdots + u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{33} - 9y^{32} + \cdots + y - 1$
c_2, c_4, c_6	$y^{33} + 31y^{32} + \cdots + 17y - 1$
c_3, c_9	$y^{33} + 7y^{32} + \cdots + y - 1$
c_7, c_8, c_{10} c_{11}	$y^{33} + 39y^{32} + \cdots + 49y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.538436 + 0.819482I$	$-2.15523 - 4.53843I$	$-7.17107 + 8.79463I$
$u = 0.538436 - 0.819482I$	$-2.15523 + 4.53843I$	$-7.17107 - 8.79463I$
$u = -0.450188 + 0.934775I$	$4.86391 + 2.09612I$	$0.30900 - 3.39492I$
$u = -0.450188 - 0.934775I$	$4.86391 - 2.09612I$	$0.30900 + 3.39492I$
$u = -0.015816 + 0.947822I$	$7.27301 + 3.05112I$	$4.25923 - 2.85680I$
$u = -0.015816 - 0.947822I$	$7.27301 - 3.05112I$	$4.25923 + 2.85680I$
$u = 0.477472 + 0.941151I$	$4.50867 - 8.17465I$	$-0.67620 + 8.47838I$
$u = 0.477472 - 0.941151I$	$4.50867 + 8.17465I$	$-0.67620 - 8.47838I$
$u = 0.581653 + 0.618567I$	$-2.78816 + 0.30049I$	$-10.41364 - 0.78013I$
$u = 0.581653 - 0.618567I$	$-2.78816 - 0.30049I$	$-10.41364 + 0.78013I$
$u = -0.422763 + 0.735470I$	$0.00215 + 1.65753I$	$-0.44649 - 4.30187I$
$u = -0.422763 - 0.735470I$	$0.00215 - 1.65753I$	$-0.44649 + 4.30187I$
$u = 0.655708 + 0.402659I$	$2.81758 + 3.97777I$	$-4.79341 - 2.84216I$
$u = 0.655708 - 0.402659I$	$2.81758 - 3.97777I$	$-4.79341 + 2.84216I$
$u = -0.132896 + 0.751128I$	$1.09758 + 1.45110I$	$2.34671 - 6.18390I$
$u = -0.132896 - 0.751128I$	$1.09758 - 1.45110I$	$2.34671 + 6.18390I$
$u = 0.890476 + 0.870044I$	$-3.73457 - 0.99486I$	$-3.97712 + 2.18288I$
$u = 0.890476 - 0.870044I$	$-3.73457 + 0.99486I$	$-3.97712 - 2.18288I$
$u = -0.903629 + 0.872248I$	$-4.45571 - 5.03491I$	$-5.18044 + 2.78598I$
$u = -0.903629 - 0.872248I$	$-4.45571 + 5.03491I$	$-5.18044 - 2.78598I$
$u = 0.870063 + 0.919218I$	$-7.65546 - 3.22231I$	$-3.72780 + 2.45721I$
$u = 0.870063 - 0.919218I$	$-7.65546 + 3.22231I$	$-3.72780 - 2.45721I$
$u = -0.895123 + 0.910482I$	$-11.01940 + 0.06168I$	$-9.88848 + 1.08911I$
$u = -0.895123 - 0.910482I$	$-11.01940 - 0.06168I$	$-9.88848 - 1.08911I$
$u = -0.627175 + 0.348896I$	$3.06985 + 1.87561I$	$-4.30897 - 2.69437I$
$u = -0.627175 - 0.348896I$	$3.06985 - 1.87561I$	$-4.30897 + 2.69437I$
$u = 0.851374 + 0.962788I$	$-3.44108 - 5.45030I$	$-3.45886 + 2.65691I$
$u = 0.851374 - 0.962788I$	$-3.44108 + 5.45030I$	$-3.45886 - 2.65691I$
$u = -0.880262 + 0.942385I$	$-10.91700 + 6.49427I$	$-9.56969 - 5.96659I$
$u = -0.880262 - 0.942385I$	$-10.91700 - 6.49427I$	$-9.56969 + 5.96659I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.859204 + 0.969585I$	$-4.14461 + 11.54620I$	$-4.60672 - 7.46871I$
$u = -0.859204 - 0.969585I$	$-4.14461 - 11.54620I$	$-4.60672 + 7.46871I$
$u = -0.356251$	-0.925837	-11.3920

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{33} + u^{32} + \cdots - u + 1$
c_2, c_4, c_6	$u^{33} + 9u^{32} + \cdots + u + 1$
c_3, c_9	$u^{33} + u^{32} + \cdots + 3u + 1$
c_7, c_8, c_{10} c_{11}	$u^{33} - 7u^{32} + \cdots + u + 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{33} - 9y^{32} + \cdots + y - 1$
c_2, c_4, c_6	$y^{33} + 31y^{32} + \cdots + 17y - 1$
c_3, c_9	$y^{33} + 7y^{32} + \cdots + y - 1$
c_7, c_8, c_{10} c_{11}	$y^{33} + 39y^{32} + \cdots + 49y - 1$