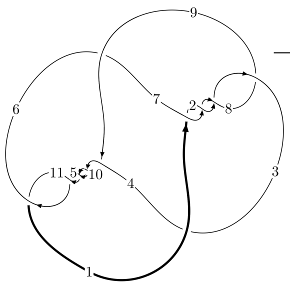
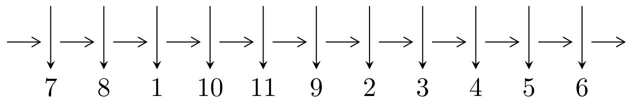
$11a_{334}$ ($K11a_{334}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I^u_1 = \langle u^{24} - u^{23} + \cdots + 2u + 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 24 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. $I_1^u = \langle u^{24} - u^{23} + \cdots + 2u + 1 \rangle$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^7 + 4u^5 - 4u^3 + 2u \\ -u^9 + 5u^7 - 7u^5 + 2u^3 + u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^7 - 4u^5 + 4u^3 - 2u \\ u^7 - 3u^5 + u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^{18} - 11u^{16} + 48u^{14} - 107u^{12} + 133u^{10} - 95u^8 + 34u^6 - 2u^4 - 3u^2 + 1 \\ u^{18} - 10u^{16} + 37u^{14} - 60u^{12} + 35u^{10} + 8u^8 - 16u^6 + 2u^4 + 3u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^{18} - 11u^{16} + 48u^{14} - 107u^{12} + 133u^{10} - 95u^8 + 34u^6 - 2u^4 - 3u^2 + 1 \\ u^{20} - 12u^{18} + \cdots - 5u^4 - 2u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^{18} - 11u^{16} + 48u^{14} - 107u^{12} + 133u^{10} - 95u^8 + 34u^6 - 2u^4 - 3u^2 + 1 \\ u^{20} - 12u^{18} + \cdots - 5u^4 - 2u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^{20} + 52u^{18} - 276u^{16} + 4u^{15} + 768u^{14} - 40u^{13} - 1200u^{12} + 152u^{11} + 1048u^{10} - 272u^9 - 456u^8 + 232u^7 + 16u^6 - 84u^5 + 64u^4 - 16u^2 + 4u - 18$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_7 c_8	$u^{24} + u^{23} + \cdots + 2u + 1$
c_3, c_6	$u^{24} - 5u^{23} + \cdots + 8u + 1$
c_4, c_5, c_9 c_{10}, c_{11}	$u^{24} - u^{23} + \cdots + 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_7 c_8	$y^{24} - 27y^{23} + \cdots - 12y + 1$
c_3, c_6	$y^{24} + 9y^{23} + \cdots - 52y + 1$
c_4, c_5, c_9 c_{10}, c_{11}	$y^{24} - 31y^{23} + \cdots - 12y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.950752 + 0.350160I$	$-8.25724 + 7.03301I$	$-18.3094 - 5.9376I$
$u = -0.950752 - 0.350160I$	$-8.25724 - 7.03301I$	$-18.3094 + 5.9376I$
$u = \quad 0.889313 + 0.320048I$	$-1.05294 - 4.61822I$	$-15.0731 + 7.6448I$
$u = \quad 0.889313 - 0.320048I$	$-1.05294 + 4.61822I$	$-15.0731 - 7.6448I$
$u = \quad 0.931166$	-4.16199	-21.6480
$u = -1.08787$	-11.9871	-21.6380
$u = -0.791765 + 0.276135I$	$-0.346278 + 1.021000I$	$-12.74843 - 0.89701I$
$u = -0.791765 - 0.276135I$	$-0.346278 - 1.021000I$	$-12.74843 + 0.89701I$
$u = \quad 0.603718 + 0.367833I$	$-6.35060 + 0.70363I$	$-16.4740 + 1.9101I$
$u = \quad 0.603718 - 0.367833I$	$-6.35060 - 0.70363I$	$-16.4740 - 1.9101I$
$u = \quad 0.139902 + 0.569572I$	$-4.91541 - 3.91207I$	$-12.94617 + 4.09440I$
$u = \quad 0.139902 - 0.569572I$	$-4.91541 + 3.91207I$	$-12.94617 - 4.09440I$
$u = -0.055351 + 0.524042I$	$1.82022 + 1.73926I$	$-8.19189 - 4.76160I$
$u = -0.055351 - 0.524042I$	$1.82022 - 1.73926I$	$-8.19189 + 4.76160I$
$u = -1.63181$	-13.8397	-18.0490
$u = \quad 1.66882 + 0.06009I$	$-9.03688 - 2.20767I$	$-14.13375 - 0.08900I$
$u = \quad 1.66882 - 0.06009I$	$-9.03688 + 2.20767I$	$-14.13375 + 0.08900I$
$u = -1.68602 + 0.08006I$	$-10.10980 + 6.14857I$	$-16.6878 - 5.7012I$
$u = -1.68602 - 0.08006I$	$-10.10980 - 6.14857I$	$-16.6878 + 5.7012I$
$u = -1.68905$	-13.4393	-20.4550
$u = \quad 1.70217 + 0.09194I$	$-17.5954 - 8.7809I$	$-19.5765 + 4.4157I$
$u = \quad 1.70217 - 0.09194I$	$-17.5954 + 8.7809I$	$-19.5765 - 4.4157I$
$u = -0.291508$	-0.498247	-19.9340
$u = \quad 1.72899$	17.4406	-21.9940

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_2, c_7 c_8	$u^{24} + u^{23} + \cdots + 2u + 1$
c_3, c_6	$u^{24} - 5u^{23} + \cdots + 8u + 1$
c_4, c_5, c_9 c_{10}, c_{11}	$u^{24} - u^{23} + \cdots + 2u + 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_7 c_8	$y^{24} - 27y^{23} + \cdots - 12y + 1$
c_3, c_6	$y^{24} + 9y^{23} + \cdots - 52y + 1$
c_4, c_5, c_9 c_{10}, c_{11}	$y^{24} - 31y^{23} + \cdots - 12y + 1$