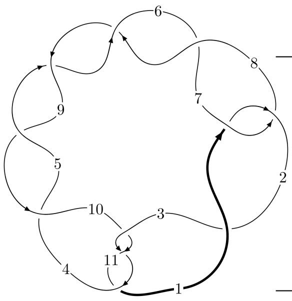
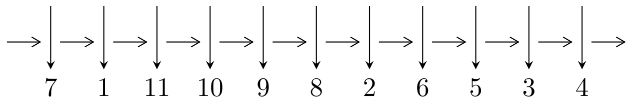
$11a_{246}$ ($K11a_{246}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{20} - u^{19} + \cdots - 4u - 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 20 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. $I_1^u = \langle u^{20} - u^{19} + \cdots - 4u - 1\rangle$

(i) Arc colorings

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^{18} + 28u^{16} + 4u^{15} - 80u^{14} - 24u^{13} + 96u^{12} + 56u^{11} + 16u^{10} - 44u^9 - 160u^8 - 40u^7 + 108u^6 + 84u^5 + 60u^4 - 12u^3 - 64u^2 - 36u - 22$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{20} + u^{19} + \cdots - 2u - 1$
c_2, c_4, c_5 c_6, c_8, c_9	$u^{20} + 3u^{19} + \cdots + 6u + 1$
c_3, c_{10}, c_{11}	$u^{20} - u^{19} + \cdots - 4u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{20} - 3y^{19} + \cdots - 6y + 1$
c_2, c_4, c_5 c_6, c_8, c_9	$y^{20} + 29y^{19} + \cdots + 2y + 1$
c_3, c_{10}, c_{11}	$y^{20} - 15y^{19} + \cdots - 6y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.007607 + 0.949634I$	$18.4290 + 3.4609I$	$-3.93136 - 2.23046I$
$u = -0.007607 - 0.949634I$	$18.4290 - 3.4609I$	$-3.93136 + 2.23046I$
$u = -1.101030 + 0.131890I$	$-1.54609 + 0.69516I$	$-7.68521 - 0.30999I$
$u = -1.101030 - 0.131890I$	$-1.54609 - 0.69516I$	$-7.68521 + 0.30999I$
$u = -0.038091 + 0.788227I$	$7.04605 + 2.82035I$	$-3.80057 - 3.20704I$
$u = -0.038091 - 0.788227I$	$7.04605 - 2.82035I$	$-3.80057 + 3.20704I$
$u = 1.24407$	-5.00568	-19.1740
$u = 1.239950 + 0.176027I$	$-3.11470 - 3.99252I$	$-13.6755 + 7.5015I$
$u = 1.239950 - 0.176027I$	$-3.11470 + 3.99252I$	$-13.6755 - 7.5015I$
$u = -1.204290 + 0.369958I$	$3.49001 + 1.34947I$	$-7.27011 - 0.63614I$
$u = -1.204290 - 0.369958I$	$3.49001 - 1.34947I$	$-7.27011 + 0.63614I$
$u = 1.261210 + 0.352418I$	$3.03541 - 6.91001I$	$-8.48791 + 6.50357I$
$u = 1.261210 - 0.352418I$	$3.03541 + 6.91001I$	$-8.48791 - 6.50357I$
$u = -1.293390 + 0.470696I$	$14.4385 + 1.5977I$	$-7.05732 - 0.65036I$
$u = -1.293390 - 0.470696I$	$14.4385 - 1.5977I$	$-7.05732 + 0.65036I$
$u = 1.304330 + 0.464606I$	$14.3498 - 8.5006I$	$-7.22483 + 5.05516I$
$u = 1.304330 - 0.464606I$	$14.3498 + 8.5006I$	$-7.22483 - 5.05516I$
$u = -0.133388 + 0.482581I$	$0.98038 + 1.64938I$	$-5.14084 - 6.42836I$
$u = -0.133388 - 0.482581I$	$0.98038 - 1.64938I$	$-5.14084 + 6.42836I$
$u = -0.299460$	-0.645282	-16.2790

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{20} + u^{19} + \cdots - 2u - 1$
c_2, c_4, c_5 c_6, c_8, c_9	$u^{20} + 3u^{19} + \cdots + 6u + 1$
c_3, c_{10}, c_{11}	$u^{20} - u^{19} + \cdots - 4u - 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{20} - 3y^{19} + \cdots - 6y + 1$
c_2, c_4, c_5 c_6, c_8, c_9	$y^{20} + 29y^{19} + \cdots + 2y + 1$
c_3, c_{10}, c_{11}	$y^{20} - 15y^{19} + \cdots - 6y + 1$