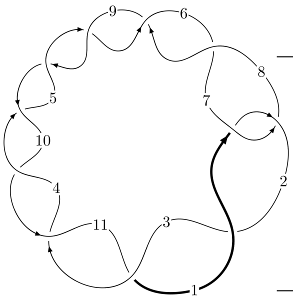
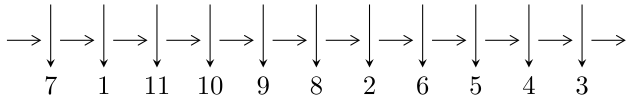
$11a_{247}$ ($K11a_{247}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^9 - u^8 + 8u^7 - 7u^6 + 21u^5 - 15u^4 + 20u^3 - 10u^2 + 5u - 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 9 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. $\boldsymbol{I_1^u = \langle u^9 - u^8 + 8u^7 - 7u^6 + 21u^5 - 15u^4 + 20u^3 - 10u^2 + 5u - 1\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^2 + 1 \\ -u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^3 - 2u \\ u^3 + u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u^4 + 3u^2 + 1 \\ -u^4 - 2u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u^3 + 2u \\ u^5 + 3u^3 + u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^4 + 3u^2 + 1 \\ u^6 + 4u^4 + 3u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^4 + 3u^2 + 1 \\ u^6 + 4u^4 + 3u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^8 + 4u^7 - 32u^6 + 28u^5 - 84u^4 + 60u^3 - 80u^2 + 40u - 22$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^9 + u^8 - u^6 + 3u^5 + 3u^4 - 2u^2 + u + 1$
c_2, c_3, c_4 c_5, c_6, c_8 c_9, c_{10}, c_{11}	$u^9 + u^8 + 8u^7 + 7u^6 + 21u^5 + 15u^4 + 20u^3 + 10u^2 + 5u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^9 - y^8 + 8y^7 - 7y^6 + 21y^5 - 15y^4 + 20y^3 - 10y^2 + 5y - 1$
c_2, c_3, c_4 c_5, c_6, c_8 c_9, c_{10}, c_{11}	$y^9 + 15y^8 + 92y^7 + 297y^6 + 541y^5 + 553y^4 + 296y^3 + 70y^2 + 5y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.104995 + 1.106070I$	$6.28696 - 2.58914I$	$-2.34022 + 3.58411I$
$u = \quad 0.104995 - 1.106070I$	$6.28696 + 2.58914I$	$-2.34022 - 3.58411I$
$u = \quad 0.197183 + 0.531294I$	$0.95473 - 1.57320I$	$-4.45593 + 6.61730I$
$u = \quad 0.197183 - 0.531294I$	$0.95473 + 1.57320I$	$-4.45593 - 6.61730I$
$u = \quad 0.04588 + 1.58245I$	$15.6866 - 3.2110I$	$-2.07323 + 2.52561I$
$u = \quad 0.04588 - 1.58245I$	$15.6866 + 3.2110I$	$-2.07323 - 2.52561I$
$u = \quad 0.280984$	-0.652345	-16.2360
$u = \quad 0.01144 + 1.89257I$	$-10.26510 - 3.55382I$	$-2.01278 + 2.11345I$
$u = \quad 0.01144 - 1.89257I$	$-10.26510 + 3.55382I$	$-2.01278 - 2.11345I$

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^9 + u^8 - u^6 + 3u^5 + 3u^4 - 2u^2 + u + 1$
c_2, c_3, c_4 c_5, c_6, c_8 c_9, c_{10}, c_{11}	$u^9 + u^8 + 8u^7 + 7u^6 + 21u^5 + 15u^4 + 20u^3 + 10u^2 + 5u + 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^9 - y^8 + 8y^7 - 7y^6 + 21y^5 - 15y^4 + 20y^3 - 10y^2 + 5y - 1$
c_2, c_3, c_4 c_5, c_6, c_8 c_9, c_{10}, c_{11}	$y^9 + 15y^8 + 92y^7 + 297y^6 + 541y^5 + 553y^4 + 296y^3 + 70y^2 + 5y - 1$