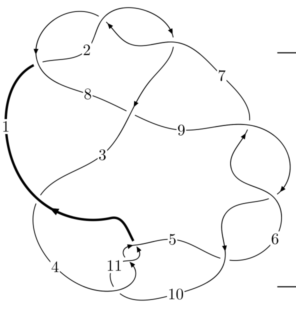
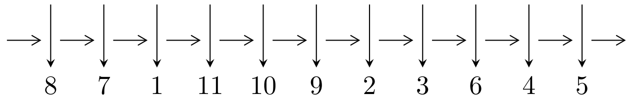
$11a_{341}$ $(K11a_{341})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{30} - u^{29} + \cdots + u - 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 30 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. $I_1^u = \langle u^{30} - u^{29} + \cdots + u - 1 \rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u^3 - 2u \\ -u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^5 - 2u^3 + u \\ u^7 - 3u^5 + 2u^3 + u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^6 - 3u^4 + 2u^2 + 1 \\ -u^6 + 2u^4 - u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^9 - 4u^7 + 5u^5 - 3u \\ -u^9 + 3u^7 - 3u^5 + u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^{25} - 10u^{23} + \cdots + 10u^3 + u \\ -u^{25} + 9u^{23} + \cdots - 2u^3 + u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^{18} + 7u^{16} - 20u^{14} + 27u^{12} - 11u^{10} - 13u^8 + 16u^6 - 6u^4 + u^2 + 1 \\ -u^{20} + 8u^{18} - 26u^{16} + 40u^{14} - 19u^{12} - 24u^{10} + 30u^8 - 2u^6 - 5u^4 - 2u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^{18} + 7u^{16} - 20u^{14} + 27u^{12} - 11u^{10} - 13u^8 + 16u^6 - 6u^4 + u^2 + 1 \\ -u^{20} + 8u^{18} - 26u^{16} + 40u^{14} - 19u^{12} - 24u^{10} + 30u^8 - 2u^6 - 5u^4 - 2u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u^{27} - 40u^{25} - 4u^{24} + 176u^{23} + 36u^{22} - 420u^{21} - 140u^{20} + 508u^{19} + 284u^{18} - 52u^{17} - 256u^{16} - 716u^{15} - 96u^{14} + 840u^{13} + 440u^{12} - 64u^{11} - 296u^{10} - 520u^9 - 112u^8 + 264u^7 + 192u^6 + 96u^5 - 16u^4 - 64u^3 - 32u^2 - 16u - 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_7	$u^{30} - u^{29} + \cdots - u - 1$
c_3, c_5, c_6 c_9	$u^{30} - 3u^{29} + \cdots - 7u + 3$
c_4, c_{10}, c_{11}	$u^{30} + u^{29} + \cdots - u - 1$
c_8	$u^{30} + u^{29} + \cdots - 135u - 53$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_7	$y^{30} + 29y^{29} + \cdots - 9y + 1$
c_3, c_5, c_6 c_9	$y^{30} + 37y^{29} + \cdots - 49y + 9$
c_4, c_{10}, c_{11}	$y^{30} - 23y^{29} + \cdots - 9y + 1$
c_8	$y^{30} + 17y^{29} + \cdots + 12939y + 2809$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.025624 + 0.918937I$	$16.4000 + 5.6172I$	$-2.30571 - 2.94796I$
$u = -0.025624 - 0.918937I$	$16.4000 - 5.6172I$	$-2.30571 + 2.94796I$
$u = \quad 0.011432 + 0.903800I$	$9.93135 - 2.26722I$	$-5.50678 + 2.95936I$
$u = \quad 0.011432 - 0.903800I$	$9.93135 + 2.26722I$	$-5.50678 - 2.95936I$
$u = -1.077260 + 0.280883I$	$4.37079 - 0.39876I$	$-5.65256 - 0.33151I$
$u = -1.077260 - 0.280883I$	$4.37079 + 0.39876I$	$-5.65256 + 0.33151I$
$u = \quad 1.170380 + 0.182149I$	$-1.55681 - 1.24454I$	$-9.57026 + 0.01940I$
$u = \quad 1.170380 - 0.182149I$	$-1.55681 + 1.24454I$	$-9.57026 - 0.01940I$
$u = -1.26925$	-5.06052	-19.4190
$u = -1.259720 + 0.224875I$	$-2.55759 + 4.40021I$	$-13.4404 - 7.3156I$
$u = -1.259720 - 0.224875I$	$-2.55759 - 4.40021I$	$-13.4404 + 7.3156I$
$u = \quad 1.291240 + 0.080442I$	$-1.40610 - 2.59166I$	$-13.13861 + 3.85906I$
$u = \quad 1.291240 - 0.080442I$	$-1.40610 + 2.59166I$	$-13.13861 - 3.85906I$
$u = -0.133435 + 0.677542I$	$7.12139 + 3.97751I$	$-2.60373 - 4.61085I$
$u = -0.133435 - 0.677542I$	$7.12139 - 3.97751I$	$-2.60373 + 4.61085I$
$u = \quad 1.289930 + 0.269184I$	$2.71542 - 7.35959I$	$-8.50810 + 6.87083I$
$u = \quad 1.289930 - 0.269184I$	$2.71542 + 7.35959I$	$-8.50810 - 6.87083I$
$u = -1.266670 + 0.453503I$	$12.55710 - 0.72268I$	$-5.44447 - 0.15080I$
$u = -1.266670 - 0.453503I$	$12.55710 + 0.72268I$	$-5.44447 + 0.15080I$
$u = \quad 1.274060 + 0.435895I$	$6.01443 - 2.51871I$	$-8.78607 + 0.11545I$
$u = \quad 1.274060 - 0.435895I$	$6.01443 + 2.51871I$	$-8.78607 - 0.11545I$
$u = -1.292280 + 0.430300I$	$5.87624 + 7.03616I$	$-9.16949 - 5.90820I$
$u = -1.292280 - 0.430300I$	$5.87624 - 7.03616I$	$-9.16949 + 5.90820I$
$u = \quad 1.306330 + 0.437358I$	$12.2507 - 10.4619I$	$-5.88987 + 5.77440I$
$u = \quad 1.306330 - 0.437358I$	$12.2507 + 10.4619I$	$-5.88987 - 5.77440I$
$u = \quad 0.085803 + 0.574843I$	$1.55006 - 1.51308I$	$-5.97054 + 5.56899I$
$u = \quad 0.085803 - 0.574843I$	$1.55006 + 1.51308I$	$-5.97054 - 5.56899I$
$u = -0.384081 + 0.329837I$	$3.55481 + 1.33307I$	$-6.99438 - 4.68394I$
$u = -0.384081 - 0.329837I$	$3.55481 - 1.33307I$	$-6.99438 + 4.68394I$
$u = \quad 0.289035$	-0.539047	-18.6190

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_2, c_7	$u^{30} - u^{29} + \cdots - u - 1$
c_3, c_5, c_6 c_9	$u^{30} - 3u^{29} + \cdots - 7u + 3$
c_4, c_{10}, c_{11}	$u^{30} + u^{29} + \cdots - u - 1$
c_8	$u^{30} + u^{29} + \cdots - 135u - 53$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_7	$y^{30} + 29y^{29} + \cdots - 9y + 1$
c_3, c_5, c_6 c_9	$y^{30} + 37y^{29} + \cdots - 49y + 9$
c_4, c_{10}, c_{11}	$y^{30} - 23y^{29} + \cdots - 9y + 1$
c_8	$y^{30} + 17y^{29} + \cdots + 12939y + 2809$