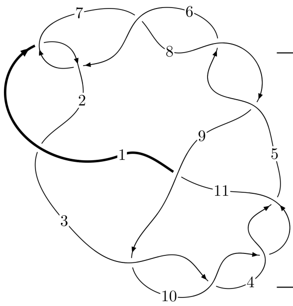
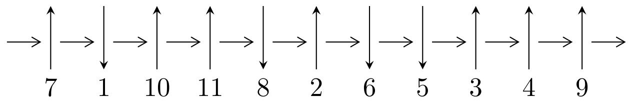
$11a_{225}$ $(K11a_{225})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{26} - u^{25} + \cdots - u - 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 26 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. $I_1^u = \langle u^{26} - u^{25} + \cdots - u - 1\rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^2 + 1 \\ u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^6 + 3u^4 - 2u^2 + 1 \\ u^6 - 2u^4 - u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u^{11} + 6u^9 - 12u^7 + 10u^5 - 5u^3 \\ u^{11} - 5u^9 + 6u^7 + u^5 - u^3 + u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^6 + 3u^4 - 2u^2 + 1 \\ u^8 - 4u^6 + 4u^4 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u^{11} - 6u^9 + 12u^7 - 10u^5 + 5u^3 \\ -u^{13} + 7u^{11} - 17u^9 + 16u^7 - 4u^5 - u^3 + u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u^{16} + 9u^{14} - 31u^{12} + 52u^{10} - 47u^8 + 24u^6 - 2u^4 - 2u^2 + 1 \\ u^{18} - 10u^{16} + 39u^{14} - 74u^{12} + 69u^{10} - 26u^8 - 4u^6 + 8u^4 - u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u^{16} + 9u^{14} - 31u^{12} + 52u^{10} - 47u^8 + 24u^6 - 2u^4 - 2u^2 + 1 \\ u^{18} - 10u^{16} + 39u^{14} - 74u^{12} + 69u^{10} - 26u^8 - 4u^6 + 8u^4 - u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= -4u^{23}+56u^{21}-328u^{19}-4u^{18}+1040u^{17}+44u^{16}-1936u^{15}-192u^{14}+2156u^{13}+420u^{12}-1376u^{11}-484u^{10}+324u^9+288u^8+228u^7-60u^6-176u^5-52u^4+52u^3+20u^2+12u+2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{26}+u^{25}+\cdots+u-1$
c_2, c_5, c_7 c_8	$u^{26}+5u^{25}+\cdots-3u+1$
c_3, c_4, c_9 c_{10}	$u^{26}-u^{25}+\cdots-u-1$
c_{11}	$u^{26}+9u^{25}+\cdots-247u-89$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{26} + 5y^{25} + \cdots - 3y + 1$
c_2, c_5, c_7 c_8	$y^{26} + 33y^{25} + \cdots - 59y + 1$
c_3, c_4, c_9 c_{10}	$y^{26} - 31y^{25} + \cdots - 3y + 1$
c_{11}	$y^{26} - 19y^{25} + \cdots - 92159y + 7921$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.839779 + 0.452868I$	$11.16140 + 0.44023I$	$10.10436 - 1.46145I$
$u = 0.839779 - 0.452868I$	$11.16140 - 0.44023I$	$10.10436 + 1.46145I$
$u = -0.825387 + 0.468991I$	$11.03030 - 7.05835I$	$9.75996 + 6.21969I$
$u = -0.825387 - 0.468991I$	$11.03030 + 7.05835I$	$9.75996 - 6.21969I$
$u = -0.684207 + 0.398529I$	$1.89109 - 4.88723I$	$7.24553 + 8.84366I$
$u = -0.684207 - 0.398529I$	$1.89109 + 4.88723I$	$7.24553 - 8.84366I$
$u = 0.733274 + 0.287832I$	$2.67984 + 0.49611I$	$10.71301 - 1.37639I$
$u = 0.733274 - 0.287832I$	$2.67984 - 0.49611I$	$10.71301 + 1.37639I$
$u = -0.012357 + 0.660147I$	$8.58736 + 3.27967I$	$5.99252 - 2.35106I$
$u = -0.012357 - 0.660147I$	$8.58736 - 3.27967I$	$5.99252 + 2.35106I$
$u = -0.439187 + 0.350365I$	$-1.41635 - 1.31903I$	$-1.30126 + 6.10882I$
$u = -0.439187 - 0.350365I$	$-1.41635 + 1.31903I$	$-1.30126 - 6.10882I$
$u = 0.525085$	0.783407	12.8960
$u = -0.106020 + 0.464476I$	$0.26125 + 1.87689I$	$2.74450 - 3.73316I$
$u = -0.106020 - 0.464476I$	$0.26125 - 1.87689I$	$2.74450 + 3.73316I$
$u = 1.54395 + 0.04489I$	$5.28037 + 2.44629I$	$3.67676 - 4.11819I$
$u = 1.54395 - 0.04489I$	$5.28037 - 2.44629I$	$3.67676 + 4.11819I$
$u = -1.58507$	8.17274	12.1060
$u = 1.59973 + 0.10370I$	$9.67676 + 6.71425I$	$9.25508 - 6.45300I$
$u = 1.59973 - 0.10370I$	$9.67676 - 6.71425I$	$9.25508 + 6.45300I$
$u = -1.61572 + 0.07479I$	$10.74900 - 1.83401I$	$11.98633 + 0.23070I$
$u = -1.61572 - 0.07479I$	$10.74900 + 1.83401I$	$11.98633 - 0.23070I$
$u = 1.64863 + 0.13284I$	$19.5205 + 9.3622I$	$11.47654 - 4.95795I$
$u = 1.64863 - 0.13284I$	$19.5205 - 9.3622I$	$11.47654 + 4.95795I$
$u = -1.65250 + 0.12610I$	$19.7312 - 2.6570I$	$11.84579 + 0.35212I$
$u = -1.65250 - 0.12610I$	$19.7312 + 2.6570I$	$11.84579 - 0.35212I$

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{26} + u^{25} + \cdots + u - 1$
c_2, c_5, c_7 c_8	$u^{26} + 5u^{25} + \cdots - 3u + 1$
c_3, c_4, c_9 c_{10}	$u^{26} - u^{25} + \cdots - u - 1$
c_{11}	$u^{26} + 9u^{25} + \cdots - 247u - 89$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{26} + 5y^{25} + \cdots - 3y + 1$
c_2, c_5, c_7 c_8	$y^{26} + 33y^{25} + \cdots - 59y + 1$
c_3, c_4, c_9 c_{10}	$y^{26} - 31y^{25} + \cdots - 3y + 1$
c_{11}	$y^{26} - 19y^{25} + \cdots - 92159y + 7921$