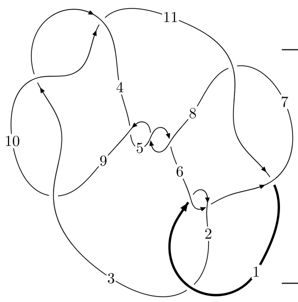
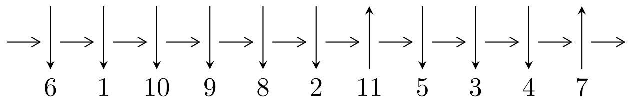
$11a_{224}$ ($K11a_{224}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{44} - u^{43} + \cdots + 2u - 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 44 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. $I_1^u = \langle u^{44} - u^{43} + \cdots + 2u - 1 \rangle$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^3 - 2u \\ -u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u^6 - 3u^4 + 2u^2 + 1 \\ -u^6 + 2u^4 - u^2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u^9 - 4u^7 + 5u^5 - 3u \\ -u^9 + 3u^7 - 3u^5 + u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^{12} - 5u^{10} + 9u^8 - 4u^6 - 6u^4 + 5u^2 + 1 \\ u^{14} - 6u^{12} + 13u^{10} - 10u^8 - 4u^6 + 8u^4 - u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^{22} + 9u^{20} + \cdots + 2u^2 + 1 \\ -u^{24} + 10u^{22} + \cdots - 4u^4 + 2u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u^{42} - 17u^{40} + \cdots - u^2 + 1 \\ -u^{42} + 16u^{40} + \cdots + 4u^4 + 3u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u^{42} - 17u^{40} + \cdots - u^2 + 1 \\ -u^{42} + 16u^{40} + \cdots + 4u^4 + 3u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u^{41} - 64u^{39} + \cdots + 4u - 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{44} - u^{43} + \cdots + u^2 - 1$
c_2	$u^{44} + 23u^{43} + \cdots + 2u + 1$
c_3, c_9, c_{10}	$u^{44} + u^{43} + \cdots - 2u - 1$
c_4, c_5, c_8	$u^{44} - 3u^{43} + \cdots - 10u + 5$
c_7, c_{11}	$u^{44} - 3u^{43} + \cdots + 70u - 7$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{44} - 23y^{43} + \cdots - 2y + 1$
c_2	$y^{44} - 3y^{43} + \cdots - 10y + 1$
c_3, c_9, c_{10}	$y^{44} - 35y^{43} + \cdots - 2y + 1$
c_4, c_5, c_8	$y^{44} + 41y^{43} + \cdots - 270y + 25$
c_7, c_{11}	$y^{44} + 29y^{43} + \cdots - 6454y + 49$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.136420 + 0.070861I$	$-1.83859 - 0.36732I$	$-5.44983 + 0.09330I$
$u = 1.136420 - 0.070861I$	$-1.83859 + 0.36732I$	$-5.44983 - 0.09330I$
$u = 0.011664 + 0.857762I$	$7.59511 - 2.36662I$	$-0.82199 + 3.38645I$
$u = 0.011664 - 0.857762I$	$7.59511 + 2.36662I$	$-0.82199 - 3.38645I$
$u = -0.072887 + 0.852785I$	$2.26398 + 8.63330I$	$-5.49078 - 6.17544I$
$u = -0.072887 - 0.852785I$	$2.26398 - 8.63330I$	$-5.49078 + 6.17544I$
$u = 0.058073 + 0.845269I$	$5.01784 - 3.75852I$	$-2.18404 + 2.68935I$
$u = 0.058073 - 0.845269I$	$5.01784 + 3.75852I$	$-2.18404 - 2.68935I$
$u = -0.066510 + 0.814340I$	$0.820194 + 0.338577I$	$-7.27786 - 0.02628I$
$u = -0.066510 - 0.814340I$	$0.820194 - 0.338577I$	$-7.27786 + 0.02628I$
$u = -1.209090 + 0.176546I$	$-3.07255 + 4.10165I$	$-9.63918 - 6.97252I$
$u = -1.209090 - 0.176546I$	$-3.07255 - 4.10165I$	$-9.63918 + 6.97252I$
$u = -1.207320 + 0.344488I$	$-2.67222 + 3.85231I$	$-10.89580 - 3.96243I$
$u = -1.207320 - 0.344488I$	$-2.67222 - 3.85231I$	$-10.89580 + 3.96243I$
$u = -1.199240 + 0.400757I$	$-1.19898 - 4.13238I$	$-8.61614 + 2.75656I$
$u = -1.199240 - 0.400757I$	$-1.19898 + 4.13238I$	$-8.61614 - 2.75656I$
$u = 1.216460 + 0.389904I$	$1.45135 - 0.67916I$	$-5.37325 + 0.I$
$u = 1.216460 - 0.389904I$	$1.45135 + 0.67916I$	$-5.37325 + 0.I$
$u = -1.28385$	-5.57163	-16.6130
$u = 1.261750 + 0.397871I$	$3.71994 - 2.13541I$	0
$u = 1.261750 - 0.397871I$	$3.71994 + 2.13541I$	0
$u = -1.280990 + 0.395746I$	$3.57613 + 6.86218I$	0
$u = -1.280990 - 0.395746I$	$3.57613 - 6.86218I$	0
$u = -1.336030 + 0.128402I$	$-5.89939 + 3.18300I$	$-11.60255 + 0.I$
$u = -1.336030 - 0.128402I$	$-5.89939 - 3.18300I$	$-11.60255 + 0.I$
$u = 1.353960 + 0.106974I$	$-9.55253 + 0.87557I$	$-15.7624 + 0.I$
$u = 1.353960 - 0.106974I$	$-9.55253 - 0.87557I$	$-15.7624 + 0.I$
$u = 1.354080 + 0.142889I$	$-9.09797 - 7.70313I$	$-14.6073 + 0.I$
$u = 1.354080 - 0.142889I$	$-9.09797 + 7.70313I$	$-14.6073 + 0.I$
$u = 1.314770 + 0.363443I$	$-3.50174 - 4.58387I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.314770 - 0.363443I$	$-3.50174 + 4.58387I$	0
$u = -1.312960 + 0.381210I$	$0.73171 + 8.16553I$	0
$u = -1.312960 - 0.381210I$	$0.73171 - 8.16553I$	0
$u = 1.322850 + 0.383944I$	$-2.10496 - 13.07590I$	0
$u = 1.322850 - 0.383944I$	$-2.10496 + 13.07590I$	0
$u = -0.371942 + 0.476818I$	$-3.72132 + 5.60891I$	$-9.34455 - 7.77746I$
$u = -0.371942 - 0.476818I$	$-3.72132 - 5.60891I$	$-9.34455 + 7.77746I$
$u = -0.442174 + 0.385790I$	$-4.03922 - 2.47426I$	$-10.82917 - 0.27323I$
$u = -0.442174 - 0.385790I$	$-4.03922 + 2.47426I$	$-10.82917 + 0.27323I$
$u = 0.334945 + 0.405418I$	$-0.74838 - 1.34331I$	$-6.21576 + 4.98012I$
$u = 0.334945 - 0.405418I$	$-0.74838 + 1.34331I$	$-6.21576 - 4.98012I$
$u = 0.101961 + 0.483460I$	$0.81833 - 1.69616I$	$-1.98579 + 6.04080I$
$u = 0.101961 - 0.483460I$	$0.81833 + 1.69616I$	$-1.98579 - 6.04080I$
$u = 0.348278$	-0.869874	-12.9060

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{44} - u^{43} + \cdots + u^2 - 1$
c_2	$u^{44} + 23u^{43} + \cdots + 2u + 1$
c_3, c_9, c_{10}	$u^{44} + u^{43} + \cdots - 2u - 1$
c_4, c_5, c_8	$u^{44} - 3u^{43} + \cdots - 10u + 5$
c_7, c_{11}	$u^{44} - 3u^{43} + \cdots + 70u - 7$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{44} - 23y^{43} + \cdots - 2y + 1$
c_2	$y^{44} - 3y^{43} + \cdots - 10y + 1$
c_3, c_9, c_{10}	$y^{44} - 35y^{43} + \cdots - 2y + 1$
c_4, c_5, c_8	$y^{44} + 41y^{43} + \cdots - 270y + 25$
c_7, c_{11}	$y^{44} + 29y^{43} + \cdots - 6454y + 49$