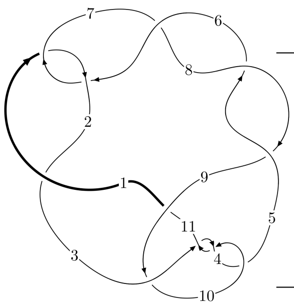
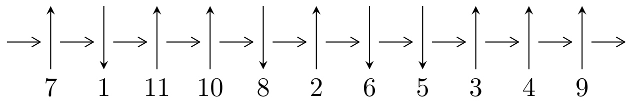
$11a_{226}$ ($K11a_{226}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$$2,6 \underset{c_6}{\longrightarrow} 7 \underset{c_7}{\longrightarrow} 8 \underset{c_1}{\longrightarrow} 1 \underset{c_2}{\longrightarrow} 3 \underset{c_5}{\longrightarrow} 5 \underset{c_8}{\longrightarrow} 9 \underset{c_9}{\longrightarrow} 10 \underset{c_4}{\longrightarrow} 4 \underset{c_{11}}{\longrightarrow} 11 \gg c_3, c_{10}$$

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

$$I_1^u = \langle u^{35} + u^{34} + \cdots + u^2 - 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 35 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. $I_1^u = \langle u^{35} + u^{34} + \cdots + u^2 - 1 \rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^2+1 \\ -u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u \\ u^3+u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^3 \\ u^5+u^3+u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^4+u^2+1 \\ -u^4 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^6+u^4+2u^2+1 \\ -u^6-u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^{14}+u^{12}+4u^{10}+3u^8+4u^6+2u^4+2u^2+1 \\ -u^{16}-2u^{14}-6u^{12}-8u^{10}-10u^8-8u^6-4u^4-2u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^{34}-3u^{32}+\cdots-u^2+1 \\ u^{34}+u^{33}+\cdots+u-1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^{15}-2u^{13}-6u^{11}-8u^9-10u^7-8u^5-4u^3-2u \\ u^{15}+u^{13}+4u^{11}+3u^9+4u^7+2u^5+2u^3+u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^{15}-2u^{13}-6u^{11}-8u^9-10u^7-8u^5-4u^3-2u \\ u^{15}+u^{13}+4u^{11}+3u^9+4u^7+2u^5+2u^3+u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u^{33}+4u^{32}+16u^{31}+12u^{30}+72u^{29}+56u^{28}+188u^{27}+124u^{26}+464u^{25}+300u^{24}+860u^{23}+500u^{22}+1432u^{21}+800u^{20}+1936u^{19}+1004u^{18}+2280u^{17}+1148u^{16}+2236u^{15}+1076u^{14}+1848u^{13}+896u^{12}+1280u^{11}+620u^{10}+724u^9+360u^8+348u^7+168u^6+128u^5+56u^4+36u^3+12u^2+4u+2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{35} + u^{34} + \cdots + u^2 - 1$
c_2, c_5, c_7 c_8	$u^{35} + 7u^{34} + \cdots + 2u - 1$
c_3, c_4, c_{10}	$u^{35} + u^{34} + \cdots - 2u - 1$
c_9	$u^{35} - u^{34} + \cdots - 6u - 1$
c_{11}	$u^{35} + 9u^{34} + \cdots + 8u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{35} + 7y^{34} + \cdots + 2y - 1$
c_2, c_5, c_7 c_8	$y^{35} + 43y^{34} + \cdots + 34y - 1$
c_3, c_4, c_{10}	$y^{35} + 31y^{34} + \cdots + 2y - 1$
c_9	$y^{35} - 5y^{34} + \cdots + 2y - 1$
c_{11}	$y^{35} - y^{34} + \cdots + 66y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.543476 + 0.874447I$	$1.82954 - 5.19769I$	$6.15709 + 8.44602I$
$u = -0.543476 - 0.874447I$	$1.82954 + 5.19769I$	$6.15709 - 8.44602I$
$u = 0.619141 + 0.725788I$	$0.22503 + 2.28348I$	$5.46937 - 4.01207I$
$u = 0.619141 - 0.725788I$	$0.22503 - 2.28348I$	$5.46937 + 4.01207I$
$u = -0.370456 + 0.868836I$	$-5.30643 - 0.72543I$	$-2.57924 + 3.52341I$
$u = -0.370456 - 0.868836I$	$-5.30643 + 0.72543I$	$-2.57924 - 3.52341I$
$u = 0.530210 + 0.918792I$	$-3.36171 + 8.57781I$	$0.89148 - 8.59823I$
$u = 0.530210 - 0.918792I$	$-3.36171 - 8.57781I$	$0.89148 + 8.59823I$
$u = 0.499339 + 0.766815I$	$0.29678 + 1.94361I$	$2.76791 - 3.40470I$
$u = 0.499339 - 0.766815I$	$0.29678 - 1.94361I$	$2.76791 + 3.40470I$
$u = -0.086945 + 0.906060I$	$-6.77422 - 3.97739I$	$-5.33902 + 4.43736I$
$u = -0.086945 - 0.906060I$	$-6.77422 + 3.97739I$	$-5.33902 - 4.43736I$
$u = -0.633646 + 0.581658I$	$2.77033 + 0.77167I$	$9.84736 - 1.25670I$
$u = -0.633646 - 0.581658I$	$2.77033 - 0.77167I$	$9.84736 + 1.25670I$
$u = 0.669966 + 0.509743I$	$-2.05362 - 4.10467I$	$4.51219 + 2.60017I$
$u = 0.669966 - 0.509743I$	$-2.05362 + 4.10467I$	$4.51219 - 2.60017I$
$u = 0.084712 + 0.809947I$	$-1.49083 + 1.38540I$	$-1.60809 - 5.67489I$
$u = 0.084712 - 0.809947I$	$-1.49083 - 1.38540I$	$-1.60809 + 5.67489I$
$u = 0.854791 + 0.915240I$	$1.86062 + 3.17602I$	$1.83589 - 2.52504I$
$u = 0.854791 - 0.915240I$	$1.86062 - 3.17602I$	$1.83589 + 2.52504I$
$u = -0.914545 + 0.890982I$	$6.06012 + 4.90822I$	$4.65952 - 2.34927I$
$u = -0.914545 - 0.890982I$	$6.06012 - 4.90822I$	$4.65952 + 2.34927I$
$u = 0.910016 + 0.903339I$	$11.15980 - 1.02259I$	$9.09851 + 1.19971I$
$u = 0.910016 - 0.903339I$	$11.15980 + 1.02259I$	$9.09851 - 1.19971I$
$u = -0.898949 + 0.919422I$	$9.01203 - 3.04738I$	$6.19226 + 3.43104I$
$u = -0.898949 - 0.919422I$	$9.01203 + 3.04738I$	$6.19226 - 3.43104I$
$u = -0.887948 + 0.940225I$	$8.94377 - 3.54704I$	$6.02010 + 1.31518I$
$u = -0.887948 - 0.940225I$	$8.94377 + 3.54704I$	$6.02010 - 1.31518I$
$u = 0.883193 + 0.957672I$	$10.98400 + 7.63582I$	$8.68172 - 5.95948I$
$u = 0.883193 - 0.957672I$	$10.98400 - 7.63582I$	$8.68172 + 5.95948I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.877042 + 0.967333I$	$5.81346 - 11.51440I$	$4.18005 + 6.99402I$
$u = -0.877042 - 0.967333I$	$5.81346 + 11.51440I$	$4.18005 - 6.99402I$
$u = -0.536023 + 0.185938I$	$-3.38342 - 2.39890I$	$4.22780 + 3.04888I$
$u = -0.536023 - 0.185938I$	$-3.38342 + 2.39890I$	$4.22780 - 3.04888I$
$u = \quad 0.395324$	0.851596	11.9700

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{35} + u^{34} + \cdots + u^2 - 1$
c_2, c_5, c_7 c_8	$u^{35} + 7u^{34} + \cdots + 2u - 1$
c_3, c_4, c_{10}	$u^{35} + u^{34} + \cdots - 2u - 1$
c_9	$u^{35} - u^{34} + \cdots - 6u - 1$
c_{11}	$u^{35} + 9u^{34} + \cdots + 8u - 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{35} + 7y^{34} + \cdots + 2y - 1$
c_2, c_5, c_7 c_8	$y^{35} + 43y^{34} + \cdots + 34y - 1$
c_3, c_4, c_{10}	$y^{35} + 31y^{34} + \cdots + 2y - 1$
c_9	$y^{35} - 5y^{34} + \cdots + 2y - 1$
c_{11}	$y^{35} - y^{34} + \cdots + 66y - 1$