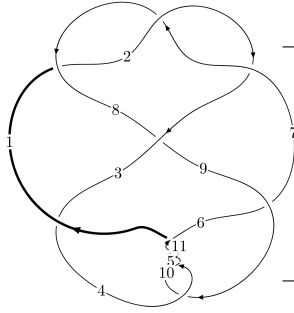
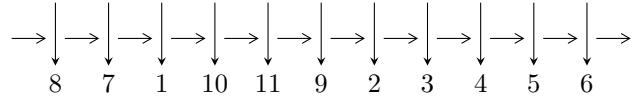


11a₃₃₆ (K11a₃₃₆)

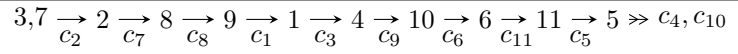


A knot diagram¹

Linearized knot diagram



Solving Sequence



Ideals for irreducible components² of X_{par}

$$I_1^u = \langle u^{29} + u^{28} + \dots - u + 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 29 representations.

¹The 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>).

²All coefficients of polynomials are rational numbers. But the coefficients are sometimes approximated in decimal forms when there is not enough margin.

$$\text{I. } I_1^u = \langle u^{29} + u^{28} + \dots - u + 1 \rangle$$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

$$a_9 = \begin{pmatrix} -u^3 - 2u \\ u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^2 + 1 \\ -u^4 - 2u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u^6 - 3u^4 - 2u^2 + 1 \\ u^8 + 4u^6 + 4u^4 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^{17} + 8u^{15} + 25u^{13} + 36u^{11} + 19u^9 - 4u^7 - 2u^5 + 2u^3 - 3u \\ -u^{19} - 9u^{17} - 32u^{15} - 55u^{13} - 43u^{11} - 9u^9 - 4u^5 + u^3 + u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u^7 + 4u^5 + 4u^3 \\ -u^7 - 3u^5 - 2u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^{18} - 9u^{16} - 32u^{14} - 55u^{12} - 43u^{10} - 9u^8 - 4u^4 + u^2 + 1 \\ u^{18} + 8u^{16} + 25u^{14} + 36u^{12} + 19u^{10} - 4u^8 - 2u^6 + 2u^4 - 3u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^{28} + 13u^{26} + \dots - 5u^2 + 1 \\ -u^{28} - u^{27} + \dots + 2u - 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^{28} + 13u^{26} + \dots - 5u^2 + 1 \\ -u^{28} - u^{27} + \dots + 2u - 1 \end{pmatrix}$$

(ii) Obstruction class = -1

$$\begin{aligned} \text{(iii) Cusp Shapes} &= 4u^{27} + 4u^{26} + 52u^{25} + 48u^{24} + 292u^{23} + 244u^{22} + 916u^{21} + \\ &668u^{20} + 1728u^{19} + 1020u^{18} + 1952u^{17} + 764u^{16} + 1228u^{15} + 84u^{14} + 396u^{13} - 188u^{12} + \\ &168u^{11} - 48u^{10} + 136u^9 - 56u^8 + 4u^7 - 80u^6 - 20u^5 - 8u^4 - 12u^2 - 12u - 14 \end{aligned}$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_7	$u^{29} - u^{28} + \dots - u - 1$
c_3, c_6	$u^{29} - 5u^{28} + \dots - 11u + 11$
c_4, c_5, c_9 c_{10}, c_{11}	$u^{29} - u^{28} + \dots - u - 1$
c_8	$u^{29} + u^{28} + \dots - 23u - 13$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_7	$y^{29} + 27y^{28} + \cdots + 11y - 1$
c_3, c_6	$y^{29} + 19y^{28} + \cdots + 2035y - 121$
c_4, c_5, c_9 c_{10}, c_{11}	$y^{29} - 37y^{28} + \cdots + 11y - 1$
c_8	$y^{29} + 7y^{28} + \cdots + 451y - 169$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.701361 + 0.346462I$	$-9.80284 + 6.46387I$	$-15.7632 - 5.4182I$
$u = -0.701361 - 0.346462I$	$-9.80284 - 6.46387I$	$-15.7632 + 5.4182I$
$u = 0.245640 + 1.201630I$	$-10.19110 - 3.45786I$	$-15.1424 + 3.3089I$
$u = 0.245640 - 1.201630I$	$-10.19110 + 3.45786I$	$-15.1424 - 3.3089I$
$u = -0.171885 + 1.229330I$	$-0.67138 + 2.87906I$	$-14.7089 - 4.2830I$
$u = -0.171885 - 1.229330I$	$-0.67138 - 2.87906I$	$-14.7089 + 4.2830I$
$u = -0.480158 + 0.582021I$	$-8.87707 - 2.41616I$	$-13.78310 - 0.38790I$
$u = -0.480158 - 0.582021I$	$-8.87707 + 2.41616I$	$-13.78310 + 0.38790I$
$u = 0.650708 + 0.354585I$	$-0.79370 - 4.83148I$	$-14.1571 + 7.3194I$
$u = 0.650708 - 0.354585I$	$-0.79370 + 4.83148I$	$-14.1571 - 7.3194I$
$u = 0.054580 + 1.286800I$	$3.32000 - 1.28636I$	$-8.05258 + 4.98094I$
$u = 0.054580 - 1.286800I$	$3.32000 + 1.28636I$	$-8.05258 - 4.98094I$
$u = 0.696889$	-13.8494	-19.9990
$u = -0.577927 + 0.388990I$	$2.04166 + 1.81994I$	$-7.79852 - 4.33424I$
$u = -0.577927 - 0.388990I$	$2.04166 - 1.81994I$	$-7.79852 + 4.33424I$
$u = 0.480305 + 0.469181I$	$-0.185293 + 1.088380I$	$-12.37698 - 0.82894I$
$u = 0.480305 - 0.469181I$	$-0.185293 - 1.088380I$	$-12.37698 + 0.82894I$
$u = -0.612238$	-4.36553	-20.8170
$u = 0.18636 + 1.44283I$	$5.85747 - 1.38485I$	$-8.54073 - 1.09314I$
$u = 0.18636 - 1.44283I$	$5.85747 + 1.38485I$	$-8.54073 + 1.09314I$
$u = -0.22007 + 1.44335I$	$7.91796 + 4.76802I$	$-4.71364 - 3.85103I$
$u = -0.22007 - 1.44335I$	$7.91796 - 4.76802I$	$-4.71364 + 3.85103I$
$u = 0.24692 + 1.44056I$	$4.97107 - 8.11618I$	$-10.00612 + 6.88913I$
$u = 0.24692 - 1.44056I$	$4.97107 + 8.11618I$	$-10.00612 - 6.88913I$
$u = -0.26820 + 1.44214I$	$-4.06372 + 9.99800I$	$-11.72647 - 5.43335I$
$u = -0.26820 - 1.44214I$	$-4.06372 - 9.99800I$	$-11.72647 + 5.43335I$
$u = -0.14976 + 1.46219I$	$-2.36690 - 0.23982I$	$-10.11006 - 0.14819I$
$u = -0.14976 - 1.46219I$	$-2.36690 + 0.23982I$	$-10.11006 + 0.14819I$
$u = 0.325062$	-0.510553	-19.4250

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_2, c_7	$u^{29} - u^{28} + \dots - u - 1$
c_3, c_6	$u^{29} - 5u^{28} + \dots - 11u + 11$
c_4, c_5, c_9 c_{10}, c_{11}	$u^{29} - u^{28} + \dots - u - 1$
c_8	$u^{29} + u^{28} + \dots - 23u - 13$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_7	$y^{29} + 27y^{28} + \dots + 11y - 1$
c_3, c_6	$y^{29} + 19y^{28} + \dots + 2035y - 121$
c_4, c_5, c_9 c_{10}, c_{11}	$y^{29} - 37y^{28} + \dots + 11y - 1$
c_8	$y^{29} + 7y^{28} + \dots + 451y - 169$