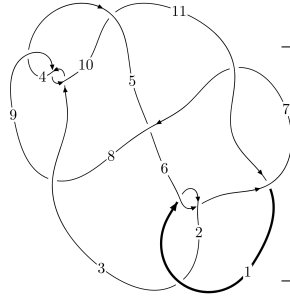
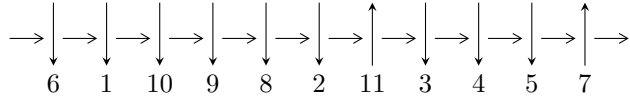


11a₂₀₄ (K11a₂₀₄)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle u^{50} - u^{49} + \dots + u - 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 50 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.

$$\text{I. } I_1^u = \langle u^{50} - u^{49} + \dots + u - 1 \rangle$$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^3 \\ u^5 - u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^3 \\ -u^3 + u \end{pmatrix}$$

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

$$a_9 = \begin{pmatrix} -u^{14} + 3u^{12} - 4u^{10} + u^8 + 2u^6 - 2u^4 + 1 \\ u^{16} - 4u^{14} + 8u^{12} - 8u^{10} + 4u^8 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^{14} + 3u^{12} - 4u^{10} + u^8 + 2u^6 - 2u^4 + 1 \\ u^{14} - 4u^{12} + 7u^{10} - 6u^8 + 2u^6 - u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u^{44} + 11u^{42} + \dots - u^2 + 1 \\ u^{46} - 12u^{44} + \dots + 2u^6 - u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u^{25} + 6u^{23} + \dots - 3u^5 + u \\ u^{25} - 7u^{23} + \dots - 2u^3 + u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u^{25} + 6u^{23} + \dots - 3u^5 + u \\ u^{25} - 7u^{23} + \dots - 2u^3 + u \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $-4u^{48} + 52u^{46} + \dots + 8u - 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{50} - u^{49} + \dots + u - 1$
c_2	$u^{50} + 27u^{49} + \dots + 3u + 1$
c_3, c_4, c_9	$u^{50} + u^{49} + \dots - 3u - 1$
c_5	$u^{50} - 7u^{49} + \dots - 111u + 37$
c_7, c_{11}	$u^{50} - 3u^{49} + \dots + u + 1$
c_8, c_{10}	$u^{50} - u^{49} + \dots - 45u - 17$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{50} - 27y^{49} + \dots - 3y + 1$
c_2	$y^{50} - 7y^{49} + \dots - 7y + 1$
c_3, c_4, c_9	$y^{50} + 41y^{49} + \dots - 3y + 1$
c_5	$y^{50} - 11y^{49} + \dots - 28823y + 1369$
c_7, c_{11}	$y^{50} + 41y^{49} + \dots - 111y + 1$
c_8, c_{10}	$y^{50} - 35y^{49} + \dots + 457y + 289$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.898377 + 0.505512I$	$-2.14014 + 4.60582I$	$-9.82761 - 7.01636I$
$u = -0.898377 - 0.505512I$	$-2.14014 - 4.60582I$	$-9.82761 + 7.01636I$
$u = 0.886274 + 0.537129I$	$2.36766 - 8.44259I$	$-4.56565 + 8.69974I$
$u = 0.886274 - 0.537129I$	$2.36766 + 8.44259I$	$-4.56565 - 8.69974I$
$u = 0.940835 + 0.435517I$	$1.03261 - 1.03580I$	$-6.91855 + 2.91618I$
$u = 0.940835 - 0.435517I$	$1.03261 + 1.03580I$	$-6.91855 - 2.91618I$
$u = 1.04249$	-5.57110	-16.4420
$u = -1.048370 + 0.049358I$	$-1.64759 + 4.00369I$	$-11.91063 - 3.67666I$
$u = -1.048370 - 0.049358I$	$-1.64759 - 4.00369I$	$-11.91063 + 3.67666I$
$u = -0.764066 + 0.531630I$	$6.63211 + 2.15686I$	$0.57370 - 3.89945I$
$u = -0.764066 - 0.531630I$	$6.63211 - 2.15686I$	$0.57370 + 3.89945I$
$u = 0.774496 + 0.423862I$	$0.95587 - 1.83688I$	$-2.97268 + 5.52059I$
$u = 0.774496 - 0.423862I$	$0.95587 + 1.83688I$	$-2.97268 - 5.52059I$
$u = 0.131214 + 0.816301I$	$-1.25862 + 8.74450I$	$-6.26482 - 5.70892I$
$u = 0.131214 - 0.816301I$	$-1.25862 - 8.74450I$	$-6.26482 + 5.70892I$
$u = -0.113334 + 0.813002I$	$-5.75677 - 4.53837I$	$-10.90083 + 3.52404I$
$u = -0.113334 - 0.813002I$	$-5.75677 + 4.53837I$	$-10.90083 - 3.52404I$
$u = 0.600001 + 0.552718I$	$3.16690 + 4.05720I$	$-2.39559 - 2.41761I$
$u = 0.600001 - 0.552718I$	$3.16690 - 4.05720I$	$-2.39559 + 2.41761I$
$u = 0.088090 + 0.807114I$	$-2.52256 + 0.29931I$	$-7.87191 + 0.33424I$
$u = 0.088090 - 0.807114I$	$-2.52256 - 0.29931I$	$-7.87191 - 0.33424I$
$u = 1.124710 + 0.394492I$	$0.834215 - 0.681511I$	$-6.55623 + 0.I$
$u = 1.124710 - 0.394492I$	$0.834215 + 0.681511I$	$-6.55623 + 0.I$
$u = -1.169100 + 0.434672I$	$-4.41097 + 2.59787I$	$-11.45875 + 0.I$
$u = -1.169100 - 0.434672I$	$-4.41097 - 2.59787I$	$-11.45875 + 0.I$
$u = -1.157340 + 0.497610I$	$1.58916 + 7.35454I$	0
$u = -1.157340 - 0.497610I$	$1.58916 - 7.35454I$	0
$u = -0.542490 + 0.497935I$	$-1.186550 - 0.458750I$	$-7.63805 + 0.36311I$
$u = -0.542490 - 0.497935I$	$-1.186550 + 0.458750I$	$-7.63805 - 0.36311I$
$u = 1.173630 + 0.470826I$	$-4.14754 - 5.79334I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.173630 - 0.470826I$	$-4.14754 + 5.79334I$	0
$u = -0.173744 + 0.706786I$	$4.42834 - 2.79951I$	$-1.47445 + 3.26453I$
$u = -0.173744 - 0.706786I$	$4.42834 + 2.79951I$	$-1.47445 - 3.26453I$
$u = -1.219870 + 0.382444I$	$-5.33475 - 4.67917I$	0
$u = -1.219870 - 0.382444I$	$-5.33475 + 4.67917I$	0
$u = 1.219490 + 0.394041I$	$-9.75574 + 0.40809I$	0
$u = 1.219490 - 0.394041I$	$-9.75574 - 0.40809I$	0
$u = -1.217770 + 0.408433I$	$-6.41473 + 3.90979I$	0
$u = -1.217770 - 0.408433I$	$-6.41473 - 3.90979I$	0
$u = 0.065064 + 0.701160I$	$-1.00563 + 1.42365I$	$-7.09664 - 4.59801I$
$u = 0.065064 - 0.701160I$	$-1.00563 - 1.42365I$	$-7.09664 + 4.59801I$
$u = 1.203910 + 0.493230I$	$-5.81092 - 5.03608I$	0
$u = 1.203910 - 0.493230I$	$-5.81092 + 5.03608I$	0
$u = -1.202290 + 0.504191I$	$-8.97338 + 9.35305I$	0
$u = -1.202290 - 0.504191I$	$-8.97338 - 9.35305I$	0
$u = 1.200010 + 0.511632I$	$-4.4198 - 13.6080I$	0
$u = 1.200010 - 0.511632I$	$-4.4198 + 13.6080I$	0
$u = 0.406824 + 0.539325I$	$2.56296 - 2.88378I$	$-2.70702 + 3.08785I$
$u = 0.406824 - 0.539325I$	$2.56296 + 2.88378I$	$-2.70702 - 3.08785I$
$u = -0.658085$	-0.823669	-13.0660

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{50} - u^{49} + \dots + u - 1$
c_2	$u^{50} + 27u^{49} + \dots + 3u + 1$
c_3, c_4, c_9	$u^{50} + u^{49} + \dots - 3u - 1$
c_5	$u^{50} - 7u^{49} + \dots - 111u + 37$
c_7, c_{11}	$u^{50} - 3u^{49} + \dots + u + 1$
c_8, c_{10}	$u^{50} - u^{49} + \dots - 45u - 17$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{50} - 27y^{49} + \dots - 3y + 1$
c_2	$y^{50} - 7y^{49} + \dots - 7y + 1$
c_3, c_4, c_9	$y^{50} + 41y^{49} + \dots - 3y + 1$
c_5	$y^{50} - 11y^{49} + \dots - 28823y + 1369$
c_7, c_{11}	$y^{50} + 41y^{49} + \dots - 111y + 1$
c_8, c_{10}	$y^{50} - 35y^{49} + \dots + 457y + 289$