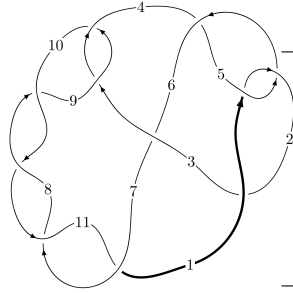
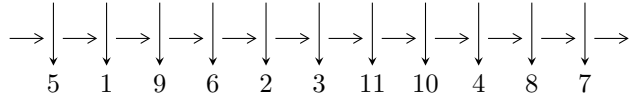


11a₉₅ (K11a₉₅)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle u^{36} + u^{35} + \dots + 2u - 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 36 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.

$$\text{I. } I_1^u = \langle u^{36} + u^{35} + \dots + 2u - 1 \rangle$$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

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

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

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

$$a_7 = \begin{pmatrix} -u^6 + u^4 - 2u^2 + 1 \\ -u^6 - u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^8 - u^6 + 3u^4 - 2u^2 + 1 \\ u^8 + 2u^4 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u^{19} + 2u^{17} - 8u^{15} + 12u^{13} - 21u^{11} + 22u^9 - 20u^7 + 12u^5 - 5u^3 + 2u \\ -u^{19} + u^{17} - 6u^{15} + 5u^{13} - 11u^{11} + 7u^9 - 6u^7 + 2u^5 - u^3 + u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^{10} + u^8 - 4u^6 + 3u^4 - 3u^2 + 1 \\ u^{12} - 2u^{10} + 4u^8 - 6u^6 + 3u^4 - 2u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^{21} + 2u^{19} + \dots + 6u^3 - u \\ u^{23} - 3u^{21} + \dots + 2u^3 + u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^{21} + 2u^{19} + \dots + 6u^3 - u \\ u^{23} - 3u^{21} + \dots + 2u^3 + u \end{pmatrix}$$

(ii) Obstruction class = -1

$$\begin{aligned} \text{(iii) Cusp Shapes} &= -4u^{34} - 4u^{33} + 12u^{32} + 16u^{31} - 60u^{30} - 68u^{29} + 136u^{28} + \\ &180u^{27} - 352u^{26} - 420u^{25} + 612u^{24} + 780u^{23} - 1052u^{22} - 1232u^{21} + 1408u^{20} + \\ &1624u^{19} - 1744u^{18} - 1804u^{17} + 1796u^{16} + 1644u^{15} - 1644u^{14} - 1232u^{13} + 1288u^{12} + \\ &704u^{11} - 852u^{10} - 296u^9 + 456u^8 + 44u^7 - 184u^6 + 44u^5 + 40u^4 - 36u^3 + 12u - 18 \end{aligned}$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{36} + u^{35} + \dots - 4u - 1$
c_2, c_4	$u^{36} + 11u^{35} + \dots + 6u + 1$
c_3, c_9	$u^{36} - u^{35} + \dots - 2u - 1$
c_6	$u^{36} - u^{35} + \dots - 366u - 97$
c_7, c_8, c_{10} c_{11}	$u^{36} + 7u^{35} + \dots + 6u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{36} - 11y^{35} + \dots - 6y + 1$
c_2, c_4	$y^{36} + 29y^{35} + \dots - 62y + 1$
c_3, c_9	$y^{36} - 7y^{35} + \dots - 6y + 1$
c_6	$y^{36} + 17y^{35} + \dots - 13870y + 9409$
c_7, c_8, c_{10} c_{11}	$y^{36} + 45y^{35} + \dots - 14y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.855468 + 0.478503I$	$-1.79064 - 4.12069I$	$-14.4783 + 7.6804I$
$u = 0.855468 - 0.478503I$	$-1.79064 + 4.12069I$	$-14.4783 - 7.6804I$
$u = -0.885209 + 0.588905I$	$4.26116 + 3.38021I$	$-6.36942 - 4.06127I$
$u = -0.885209 - 0.588905I$	$4.26116 - 3.38021I$	$-6.36942 + 4.06127I$
$u = 0.910885 + 0.568898I$	$3.52152 - 9.06176I$	$-8.19420 + 9.30306I$
$u = 0.910885 - 0.568898I$	$3.52152 + 9.06176I$	$-8.19420 - 9.30306I$
$u = -0.612613 + 0.694030I$	$5.14913 + 1.38552I$	$-3.93165 - 2.60854I$
$u = -0.612613 - 0.694030I$	$5.14913 - 1.38552I$	$-3.93165 + 2.60854I$
$u = -0.740711 + 0.536049I$	$1.42228 + 2.05301I$	$-4.86610 - 4.82950I$
$u = -0.740711 - 0.536049I$	$1.42228 - 2.05301I$	$-4.86610 + 4.82950I$
$u = 0.568507 + 0.699594I$	$4.63406 + 4.35057I$	$-4.96741 - 3.00405I$
$u = 0.568507 - 0.699594I$	$4.63406 - 4.35057I$	$-4.96741 + 3.00405I$
$u = -0.882589 + 0.153471I$	$-0.44906 + 4.79281I$	$-14.2901 - 6.9019I$
$u = -0.882589 - 0.153471I$	$-0.44906 - 4.79281I$	$-14.2901 + 6.9019I$
$u = 0.835861 + 0.225802I$	$-0.001943 + 0.306901I$	$-12.89345 + 1.58755I$
$u = 0.835861 - 0.225802I$	$-0.001943 - 0.306901I$	$-12.89345 - 1.58755I$
$u = -0.854609$	-4.25142	-21.1240
$u = -0.905500 + 0.888140I$	$6.73510 + 0.05242I$	$-9.91031 + 1.11538I$
$u = -0.905500 - 0.888140I$	$6.73510 - 0.05242I$	$-9.91031 - 1.11538I$
$u = -0.942056 + 0.872713I$	$6.61933 + 6.45885I$	$-10.23279 - 5.88059I$
$u = -0.942056 - 0.872713I$	$6.61933 - 6.45885I$	$-10.23279 + 5.88059I$
$u = 0.929633 + 0.892365I$	$10.03410 - 3.29411I$	$-3.98637 + 2.43304I$
$u = 0.929633 - 0.892365I$	$10.03410 + 3.29411I$	$-3.98637 - 2.43304I$
$u = -0.901015 + 0.922180I$	$13.3053 - 5.0936I$	$-5.21713 + 2.79441I$
$u = -0.901015 - 0.922180I$	$13.3053 + 5.0936I$	$-5.21713 - 2.79441I$
$u = 0.909275 + 0.920439I$	$14.07570 - 0.94615I$	$-3.96028 + 2.12397I$
$u = 0.909275 - 0.920439I$	$14.07570 + 0.94615I$	$-3.96028 - 2.12397I$
$u = 0.962084 + 0.893022I$	$13.9035 - 5.7329I$	$-4.26372 + 2.53612I$
$u = 0.962084 - 0.893022I$	$13.9035 + 5.7329I$	$-4.26372 - 2.53612I$
$u = -0.967629 + 0.887890I$	$13.0885 + 11.7607I$	$-5.64793 - 7.43079I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.967629 - 0.887890I$	$13.0885 - 11.7607I$	$-5.64793 + 7.43079I$
$u = 0.484510 + 0.469460I$	$-0.731880 + 0.351895I$	$-10.65376 - 0.66893I$
$u = 0.484510 - 0.469460I$	$-0.731880 - 0.351895I$	$-10.65376 + 0.66893I$
$u = 0.043246 + 0.549053I$	$2.46542 - 2.71564I$	$-4.42006 + 3.22989I$
$u = 0.043246 - 0.549053I$	$2.46542 + 2.71564I$	$-4.42006 - 3.22989I$
$u = 0.530314$	-0.709168	-14.3100

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{36} + u^{35} + \dots - 4u - 1$
c_2, c_4	$u^{36} + 11u^{35} + \dots + 6u + 1$
c_3, c_9	$u^{36} - u^{35} + \dots - 2u - 1$
c_6	$u^{36} - u^{35} + \dots - 366u - 97$
c_7, c_8, c_{10} c_{11}	$u^{36} + 7u^{35} + \dots + 6u + 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{36} - 11y^{35} + \dots - 6y + 1$
c_2, c_4	$y^{36} + 29y^{35} + \dots - 62y + 1$
c_3, c_9	$y^{36} - 7y^{35} + \dots - 6y + 1$
c_6	$y^{36} + 17y^{35} + \dots - 13870y + 9409$
c_7, c_8, c_{10} c_{11}	$y^{36} + 45y^{35} + \dots - 14y + 1$