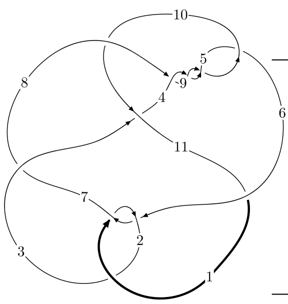
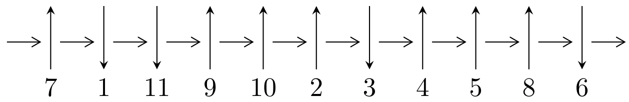
$11a_{184}$ ($K11a_{184}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{43} - u^{42} + \cdots - u^2 + 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 43 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. $I_1^u = \langle u^{43} - u^{42} + \cdots - u^2 + 1 \rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

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

$$a_3 = \begin{pmatrix} u^2+1 \\ -u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u^5-2u^3-u \\ u^5+u^3+u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u \\ u^3+u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^4+u^2+1 \\ -u^6-2u^4-u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u^{12}-3u^{10}-5u^8-4u^6-2u^4+u^2+1 \\ u^{14}+4u^{12}+7u^{10}+6u^8+2u^6-u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^{31}-8u^{29}+\cdots-12u^7-4u^5 \\ u^{33}+9u^{31}+\cdots+4u^7+u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^{16}+5u^{14}+11u^{12}+12u^{10}+5u^8-2u^6-2u^4+1 \\ -u^{16}-4u^{14}-8u^{12}-8u^{10}-4u^8 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^{35}-10u^{33}+\cdots-u^3-2u \\ u^{35}+9u^{33}+\cdots+u^3+u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^{35}-10u^{33}+\cdots-u^3-2u \\ u^{35}+9u^{33}+\cdots+u^3+u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= -4u^{41}+4u^{40}-44u^{39}+44u^{38}-236u^{37}+240u^{36}-796u^{35}+832u^{34}-1848u^{33}+2004u^{32}-3040u^{31}+3444u^{30}-3480u^{29}+4132u^{28}-2468u^{27}+3044u^{26}-428u^{25}+452u^{24}+1264u^{23}-1860u^{22}+1600u^{21}-2240u^{20}+824u^{19}-920u^{18}-84u^{17}+456u^{16}-464u^{15}+772u^{14}-336u^{13}+332u^{12}-72u^{11}-72u^{10}+76u^9-136u^8+68u^7-44u^6+16u^5+8u^4-8u^3+8u^2-4u+2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{43} + u^{42} + \cdots + u^2 - 1$
c_2	$u^{43} + 23u^{42} + \cdots + 2u - 1$
c_3	$u^{43} - 5u^{42} + \cdots - 2u + 5$
c_4, c_5, c_8 c_9	$u^{43} + u^{42} + \cdots + u^2 - 1$
c_7, c_{11}	$u^{43} - u^{42} + \cdots - 5u - 2$
c_{10}	$u^{43} + 11u^{42} + \cdots + 12u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{43} + 23y^{42} + \cdots + 2y - 1$
c_2	$y^{43} - 5y^{42} + \cdots + 14y - 1$
c_3	$y^{43} + 7y^{42} + \cdots - 926y - 25$
c_4, c_5, c_8 c_9	$y^{43} - 49y^{42} + \cdots + 2y - 1$
c_7, c_{11}	$y^{43} - 33y^{42} + \cdots + 125y - 4$
c_{10}	$y^{43} - y^{42} + \cdots - 18y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \quad 0.521315 + 0.837611I$	$1.91297 + 4.88049I$	$7.17506 - 8.80545I$
$u = \quad 0.521315 - 0.837611I$	$1.91297 - 4.88049I$	$7.17506 + 8.80545I$
$u = -0.564675 + 0.846085I$	$9.73939 - 6.81501I$	$9.15243 + 6.58080I$
$u = -0.564675 - 0.846085I$	$9.73939 + 6.81501I$	$9.15243 - 6.58080I$
$u = -0.070971 + 0.949282I$	$-1.88710 - 1.49301I$	$-2.49179 + 5.12316I$
$u = -0.070971 - 0.949282I$	$-1.88710 + 1.49301I$	$-2.49179 - 5.12316I$
$u = \quad 0.157033 + 1.039100I$	$4.88985 + 3.07247I$	$2.04876 - 3.22790I$
$u = \quad 0.157033 - 1.039100I$	$4.88985 - 3.07247I$	$2.04876 + 3.22790I$
$u = -0.443218 + 0.795583I$	$0.18390 - 1.87415I$	$2.36398 + 3.86442I$
$u = -0.443218 - 0.795583I$	$0.18390 + 1.87415I$	$2.36398 - 3.86442I$
$u = -0.578652 + 0.674431I$	$10.22700 + 2.27386I$	$10.59990 + 0.05953I$
$u = -0.578652 - 0.674431I$	$10.22700 - 2.27386I$	$10.59990 - 0.05953I$
$u = \quad 0.509969 + 0.679497I$	$2.36364 - 0.64965I$	$9.29098 + 1.48220I$
$u = \quad 0.509969 - 0.679497I$	$2.36364 + 0.64965I$	$9.29098 - 1.48220I$
$u = \quad 0.802703 + 0.162351I$	$6.46390 - 7.57490I$	$7.29481 + 4.51486I$
$u = \quad 0.802703 - 0.162351I$	$6.46390 + 7.57490I$	$7.29481 - 4.51486I$
$u = -0.783539 + 0.138077I$	$-1.13687 + 5.20298I$	$4.40416 - 6.22689I$
$u = -0.783539 - 0.138077I$	$-1.13687 - 5.20298I$	$4.40416 + 6.22689I$
$u = \quad 0.495820 + 1.104130I$	$6.52652 + 3.46599I$	$6.43711 - 3.77434I$
$u = \quad 0.495820 - 1.104130I$	$6.52652 - 3.46599I$	$6.43711 + 3.77434I$
$u = -0.781151$	2.55363	4.52390
$u = \quad 0.758021 + 0.099035I$	$-2.34232 - 1.57976I$	$0.847135 + 0.282398I$
$u = \quad 0.758021 - 0.099035I$	$-2.34232 + 1.57976I$	$0.847135 - 0.282398I$
$u = -0.463782 + 1.145440I$	$-1.69075 - 3.98657I$	$4.72929 + 3.11894I$
$u = -0.463782 - 1.145440I$	$-1.69075 + 3.98657I$	$4.72929 - 3.11894I$
$u = -0.382526 + 1.197980I$	$-5.08887 + 1.28085I$	$0. - 2.90376I$
$u = -0.382526 - 1.197980I$	$-5.08887 - 1.28085I$	$0. + 2.90376I$
$u = \quad 0.362492 + 1.206110I$	$2.33692 - 3.70518I$	$2.48681 + 1.54084I$
$u = \quad 0.362492 - 1.206110I$	$2.33692 + 3.70518I$	$2.48681 - 1.54084I$
$u = \quad 0.407336 + 1.191840I$	$-6.07657 + 2.44102I$	$-3.16979 - 3.57779I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \quad 0.407336 - 1.191840I$	$-6.07657 - 2.44102I$	$-3.16979 + 3.57779I$
$u = -0.448865 + 1.200600I$	$-0.96199 - 4.39851I$	$0. + 3.54146I$
$u = -0.448865 - 1.200600I$	$-0.96199 + 4.39851I$	$0. - 3.54146I$
$u = \quad 0.490454 + 1.184460I$	$-5.48574 + 6.18515I$	$-2.04828 - 3.59368I$
$u = \quad 0.490454 - 1.184460I$	$-5.48574 - 6.18515I$	$-2.04828 + 3.59368I$
$u = \quad 0.645564 + 0.300310I$	$8.84662 + 0.96374I$	$10.02944 - 0.37589I$
$u = \quad 0.645564 - 0.300310I$	$8.84662 - 0.96374I$	$10.02944 + 0.37589I$
$u = -0.507296 + 1.186730I$	$-4.20932 - 9.96665I$	$0. + 9.16746I$
$u = -0.507296 - 1.186730I$	$-4.20932 + 9.96665I$	$0. - 9.16746I$
$u = \quad 0.519799 + 1.187960I$	$3.43954 + 12.44990I$	$4.17518 - 7.63100I$
$u = \quad 0.519799 - 1.187960I$	$3.43954 - 12.44990I$	$4.17518 + 7.63100I$
$u = -0.536405 + 0.171930I$	$1.103730 - 0.098765I$	$9.44099 + 0.91027I$
$u = -0.536405 - 0.171930I$	$1.103730 + 0.098765I$	$9.44099 - 0.91027I$

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{43} + u^{42} + \cdots + u^2 - 1$
c_2	$u^{43} + 23u^{42} + \cdots + 2u - 1$
c_3	$u^{43} - 5u^{42} + \cdots - 2u + 5$
c_4, c_5, c_8 c_9	$u^{43} + u^{42} + \cdots + u^2 - 1$
c_7, c_{11}	$u^{43} - u^{42} + \cdots - 5u - 2$
c_{10}	$u^{43} + 11u^{42} + \cdots + 12u + 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{43} + 23y^{42} + \cdots + 2y - 1$
c_2	$y^{43} - 5y^{42} + \cdots + 14y - 1$
c_3	$y^{43} + 7y^{42} + \cdots - 926y - 25$
c_4, c_5, c_8 c_9	$y^{43} - 49y^{42} + \cdots + 2y - 1$
c_7, c_{11}	$y^{43} - 33y^{42} + \cdots + 125y - 4$
c_{10}	$y^{43} - y^{42} + \cdots - 18y - 1$