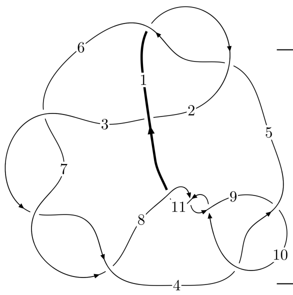
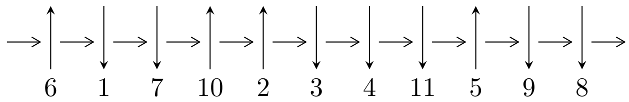
$11a_{75}$ ($K11a_{75}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{41} + u^{40} + \cdots + u + 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 41 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. $I_1^u = \langle u^{41} + u^{40} + \cdots + u + 1 \rangle$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u^2+1 \\ -u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u \\ u^3+u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^4+u^2+1 \\ -u^4 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^6+u^4+2u^2+1 \\ -u^6-u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^8+u^6+3u^4+2u^2+1 \\ -u^{10}-2u^8-3u^6-4u^4-u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^{15}+2u^{13}+6u^{11}+8u^9+10u^7+8u^5+4u^3 \\ -u^{17}-3u^{15}-7u^{13}-12u^{11}-13u^9-12u^7-6u^5+u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u^{29}-4u^{27}+\cdots+8u^3+u \\ u^{29}+3u^{27}+\cdots-u^3+u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u^{22}-3u^{20}+\cdots+2u^2+1 \\ u^{24}+4u^{22}+\cdots-6u^4-2u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u^{22}-3u^{20}+\cdots+2u^2+1 \\ u^{24}+4u^{22}+\cdots-6u^4-2u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes

$= -4u^{39} - 4u^{38} - 20u^{37} - 20u^{36} - 88u^{35} - 84u^{34} - 256u^{33} - 240u^{32} - 640u^{31} - 572u^{30} - 1280u^{29} - 1108u^{28} - 2208u^{27} - 1808u^{26} - 3192u^{25} - 2484u^{24} - 3956u^{23} - 2856u^{22} - 4076u^{21} - 2692u^{20} - 3468u^{19} - 1996u^{18} - 2228u^{17} - 1004u^{16} - 924u^{15} - 144u^{14} + 56u^{13} + 304u^{12} + 416u^{11} + 344u^{10} + 356u^9 + 168u^8 + 128u^7 + 12u^6 - 20u^4 - 32u^3 - 12u^2 - 12u - 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{41} - u^{40} + \cdots + u + 1$
c_2	$u^{41} + 23u^{40} + \cdots - 3u - 1$
c_3, c_6, c_7	$u^{41} + u^{40} + \cdots - 7u + 1$
c_4, c_9	$u^{41} + u^{40} + \cdots + u + 1$
c_8, c_{10}, c_{11}	$u^{41} + 11u^{40} + \cdots - 3u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{41} + 23y^{40} + \cdots - 3y - 1$
c_2	$y^{41} - 9y^{40} + \cdots - 19y - 1$
c_3, c_6, c_7	$y^{41} - 41y^{40} + \cdots - 51y - 1$
c_4, c_9	$y^{41} + 11y^{40} + \cdots - 3y - 1$
c_8, c_{10}, c_{11}	$y^{41} + 39y^{40} + \cdots - 11y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.273309 + 1.007330I$	$-6.20529 - 3.05813I$	$-7.49814 + 3.80729I$
$u = -0.273309 - 1.007330I$	$-6.20529 + 3.05813I$	$-7.49814 - 3.80729I$
$u = \quad 0.253711 + 1.021940I$	$-10.01040 - 1.50035I$	$-11.08025 - 0.35088I$
$u = \quad 0.253711 - 1.021940I$	$-10.01040 + 1.50035I$	$-11.08025 + 0.35088I$
$u = \quad 0.289765 + 1.022350I$	$-9.79545 + 7.79305I$	$-10.43974 - 6.91622I$
$u = \quad 0.289765 - 1.022350I$	$-9.79545 - 7.79305I$	$-10.43974 + 6.91622I$
$u = -0.352546 + 0.864150I$	$-2.13456 - 4.94858I$	$-7.01922 + 9.44337I$
$u = -0.352546 - 0.864150I$	$-2.13456 + 4.94858I$	$-7.01922 - 9.44337I$
$u = -0.132698 + 0.868731I$	$-3.36085 + 0.49947I$	$-12.33273 - 0.13229I$
$u = -0.132698 - 0.868731I$	$-3.36085 - 0.49947I$	$-12.33273 + 0.13229I$
$u = -0.830272 + 0.762818I$	$-2.92978 - 2.50596I$	$-5.15377 + 2.93090I$
$u = -0.830272 - 0.762818I$	$-2.92978 + 2.50596I$	$-5.15377 - 2.93090I$
$u = \quad 0.842291 + 0.783314I$	$1.03604 - 1.75419I$	$-1.142381 + 0.318926I$
$u = \quad 0.842291 - 0.783314I$	$1.03604 + 1.75419I$	$-1.142381 - 0.318926I$
$u = -0.858015 + 0.778364I$	$-2.29038 + 6.57620I$	$-4.18692 - 3.44855I$
$u = -0.858015 - 0.778364I$	$-2.29038 - 6.57620I$	$-4.18692 + 3.44855I$
$u = \quad 0.756645 + 0.885386I$	$1.40338 + 2.86651I$	$-6.38250 - 2.83312I$
$u = \quad 0.756645 - 0.885386I$	$1.40338 - 2.86651I$	$-6.38250 + 2.83312I$
$u = \quad 0.836690 + 0.850906I$	$5.01543 - 2.00642I$	$-0.12467 + 3.31909I$
$u = \quad 0.836690 - 0.850906I$	$5.01543 + 2.00642I$	$-0.12467 - 3.31909I$
$u = -0.823694 + 0.876027I$	$6.13950 - 2.34478I$	$2.43085 + 2.90580I$
$u = -0.823694 - 0.876027I$	$6.13950 + 2.34478I$	$2.43085 - 2.90580I$
$u = \quad 0.300266 + 0.727840I$	$-0.31190 + 1.38897I$	$-2.22878 - 5.19649I$
$u = \quad 0.300266 - 0.727840I$	$-0.31190 - 1.38897I$	$-2.22878 + 5.19649I$
$u = -0.810647 + 0.914894I$	$6.01823 - 3.75969I$	$2.08469 + 2.66327I$
$u = -0.810647 - 0.914894I$	$6.01823 + 3.75969I$	$2.08469 - 2.66327I$
$u = \quad 0.807712 + 0.939287I$	$4.74123 + 8.14027I$	$-0.92451 - 8.45750I$
$u = \quad 0.807712 - 0.939287I$	$4.74123 - 8.14027I$	$-0.92451 + 8.45750I$
$u = -0.766003 + 0.985130I$	$-3.60687 - 3.46651I$	$-6.32048 + 2.17214I$
$u = -0.766003 - 0.985130I$	$-3.60687 + 3.46651I$	$-6.32048 - 2.17214I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \quad 0.779460 + 0.981810I$	$0.42502 + 7.80969I$	$-2.24693 - 5.23664I$
$u = \quad 0.779460 - 0.981810I$	$0.42502 - 7.80969I$	$-2.24693 + 5.23664I$
$u = -0.784350 + 0.990912I$	$-2.94834 - 12.69200I$	$-5.29244 + 8.24315I$
$u = -0.784350 - 0.990912I$	$-2.94834 + 12.69200I$	$-5.29244 - 8.24315I$
$u = \quad 0.675007 + 0.033462I$	$-6.66197 - 4.52417I$	$-4.64346 + 3.30102I$
$u = \quad 0.675007 - 0.033462I$	$-6.66197 + 4.52417I$	$-4.64346 - 3.30102I$
$u = -0.642653$	-3.07852	-1.30900
$u = \quad 0.368440 + 0.507445I$	$0.258138 + 1.315180I$	$0.82726 - 5.55607I$
$u = \quad 0.368440 - 0.507445I$	$0.258138 - 1.315180I$	$0.82726 + 5.55607I$
$u = -0.457128 + 0.246194I$	$-0.38333 + 1.88364I$	$-0.67137 - 3.86434I$
$u = -0.457128 - 0.246194I$	$-0.38333 - 1.88364I$	$-0.67137 + 3.86434I$

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{41} - u^{40} + \cdots + u + 1$
c_2	$u^{41} + 23u^{40} + \cdots - 3u - 1$
c_3, c_6, c_7	$u^{41} + u^{40} + \cdots - 7u + 1$
c_4, c_9	$u^{41} + u^{40} + \cdots + u + 1$
c_8, c_{10}, c_{11}	$u^{41} + 11u^{40} + \cdots - 3u - 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{41} + 23y^{40} + \cdots - 3y - 1$
c_2	$y^{41} - 9y^{40} + \cdots - 19y - 1$
c_3, c_6, c_7	$y^{41} - 41y^{40} + \cdots - 51y - 1$
c_4, c_9	$y^{41} + 11y^{40} + \cdots - 3y - 1$
c_8, c_{10}, c_{11}	$y^{41} + 39y^{40} + \cdots - 11y - 1$