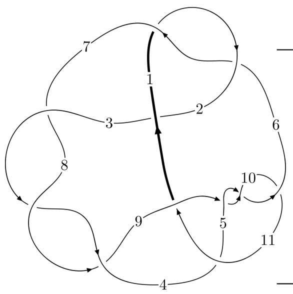
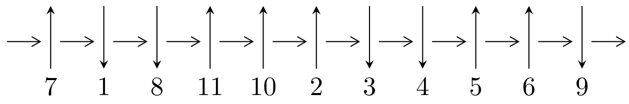
$11a_{180}$ ($K11a_{180}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{44} + u^{43} + \cdots + u^2 + 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 44 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. $I^u_1 = \langle u^{44} + u^{43} + \cdots + u^2 + 1 \rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^3 - 2u \\ -u^3 + u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^6 - 3u^4 + 2u^2 + 1 \\ u^8 - 4u^6 + 4u^4 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^{10} + 5u^8 - 8u^6 + 3u^4 + u^2 + 1 \\ u^{10} - 4u^8 + 5u^6 - 2u^4 + u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^{17} + 8u^{15} - 25u^{13} + 36u^{11} - 19u^9 - 4u^7 + 2u^5 + 4u^3 - u \\ u^{17} - 7u^{15} + 19u^{13} - 24u^{11} + 13u^9 - 2u^7 + u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^{31} - 14u^{29} + \cdots + 4u^5 + 8u^3 \\ u^{33} - 15u^{31} + \cdots + 4u^5 + u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^{24} - 11u^{22} + \cdots + 2u^2 + 1 \\ -u^{24} + 10u^{22} + \cdots + 8u^6 - 4u^4 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^{24} - 11u^{22} + \cdots + 2u^2 + 1 \\ -u^{24} + 10u^{22} + \cdots + 8u^6 - 4u^4 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^{42} + 76u^{40} + \cdots - 8u + 2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{44} + u^{43} + \cdots + u^2 + 1$
c_2	$u^{44} + 25u^{43} + \cdots + 2u + 1$
c_3, c_7, c_8	$u^{44} - u^{43} + \cdots + 16u + 5$
c_4	$u^{44} - 3u^{43} + \cdots - 8u + 3$
c_5, c_9, c_{10}	$u^{44} + u^{43} + \cdots + u^2 + 1$
c_{11}	$u^{44} - 11u^{43} + \cdots - 12u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{44} + 25y^{43} + \cdots + 2y + 1$
c_2	$y^{44} - 11y^{43} + \cdots + 6y + 1$
c_3, c_7, c_8	$y^{44} - 47y^{43} + \cdots - 726y + 25$
c_4	$y^{44} + 5y^{43} + \cdots - 70y + 9$
c_5, c_9, c_{10}	$y^{44} - 39y^{43} + \cdots + 2y + 1$
c_{11}	$y^{44} + y^{43} + \cdots + 62y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.907981 + 0.307169I$	$-7.95121 + 4.48081I$	$-3.24122 - 4.16997I$
$u = 0.907981 - 0.307169I$	$-7.95121 - 4.48081I$	$-3.24122 + 4.16997I$
$u = -0.864630 + 0.288338I$	$-4.16526 + 0.15305I$	$0.227540 + 0.929725I$
$u = -0.864630 - 0.288338I$	$-4.16526 - 0.15305I$	$0.227540 - 0.929725I$
$u = 0.842517 + 0.328770I$	$-7.81717 - 4.88382I$	$-2.90557 + 2.15624I$
$u = 0.842517 - 0.328770I$	$-7.81717 + 4.88382I$	$-2.90557 - 2.15624I$
$u = -1.170600 + 0.135808I$	$-0.38378 - 3.13770I$	$-2.56284 + 4.58087I$
$u = -1.170600 - 0.135808I$	$-0.38378 + 3.13770I$	$-2.56284 - 4.58087I$
$u = 0.238444 + 0.753257I$	$-9.78827 + 8.91254I$	$-5.51225 - 6.86117I$
$u = 0.238444 - 0.753257I$	$-9.78827 - 8.91254I$	$-5.51225 + 6.86117I$
$u = 0.211452 + 0.753740I$	$-10.14920 - 0.50010I$	$-6.30668 - 0.52370I$
$u = 0.211452 - 0.753740I$	$-10.14920 + 0.50010I$	$-6.30668 + 0.52370I$
$u = -0.226339 + 0.743021I$	$-6.22083 - 4.06637I$	$-2.60237 + 3.83342I$
$u = -0.226339 - 0.743021I$	$-6.22083 + 4.06637I$	$-2.60237 - 3.83342I$
$u = 1.27909$	2.59443	3.57300
$u = -0.265421 + 0.637640I$	$-1.64111 - 5.49885I$	$-2.09355 + 9.09752I$
$u = -0.265421 - 0.637640I$	$-1.64111 + 5.49885I$	$-2.09355 - 9.09752I$
$u = 1.333120 + 0.238788I$	$1.11897 + 2.94236I$	0
$u = 1.333120 - 0.238788I$	$1.11897 - 2.94236I$	0
$u = -0.111488 + 0.635085I$	$-3.42148 + 0.21799I$	$-7.97736 + 0.39083I$
$u = -0.111488 - 0.635085I$	$-3.42148 - 0.21799I$	$-7.97736 - 0.39083I$
$u = 1.38005$	2.50705	0
$u = 0.244204 + 0.558196I$	$0.06888 + 1.57750I$	$1.83089 - 4.70926I$
$u = 0.244204 - 0.558196I$	$0.06888 - 1.57750I$	$1.83089 + 4.70926I$
$u = 1.390480 + 0.143509I$	$5.13647 - 0.61365I$	0
$u = 1.390480 - 0.143509I$	$5.13647 + 0.61365I$	0
$u = -1.389040 + 0.181909I$	$5.88050 - 3.43976I$	0
$u = -1.389040 - 0.181909I$	$5.88050 + 3.43976I$	0
$u = -1.388080 + 0.226393I$	$5.26596 - 4.49438I$	0
$u = -1.388080 - 0.226393I$	$5.26596 + 4.49438I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.38262 + 0.30594I$	$-5.09640 - 3.33447I$	0
$u = -1.38262 - 0.30594I$	$-5.09640 + 3.33447I$	0
$u = -1.41982 + 0.02499I$	$-0.91602 + 4.40703I$	0
$u = -1.41982 - 0.02499I$	$-0.91602 - 4.40703I$	0
$u = 1.39798 + 0.25008I$	$3.65546 + 8.74389I$	0
$u = 1.39798 - 0.25008I$	$3.65546 - 8.74389I$	0
$u = 1.39053 + 0.29925I$	$-1.08580 + 7.84259I$	0
$u = 1.39053 - 0.29925I$	$-1.08580 - 7.84259I$	0
$u = -1.39749 + 0.30388I$	$-4.58845 - 12.74280I$	0
$u = -1.39749 - 0.30388I$	$-4.58845 + 12.74280I$	0
$u = -0.474413 + 0.286577I$	$-0.48387 + 2.27983I$	$1.28247 - 3.09777I$
$u = -0.474413 - 0.286577I$	$-0.48387 - 2.27983I$	$1.28247 + 3.09777I$
$u = 0.303652 + 0.417609I$	$0.553397 + 1.129410I$	$4.11708 - 5.53577I$
$u = 0.303652 - 0.417609I$	$0.553397 - 1.129410I$	$4.11708 + 5.53577I$

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{44} + u^{43} + \cdots + u^2 + 1$
c_2	$u^{44} + 25u^{43} + \cdots + 2u + 1$
c_3, c_7, c_8	$u^{44} - u^{43} + \cdots + 16u + 5$
c_4	$u^{44} - 3u^{43} + \cdots - 8u + 3$
c_5, c_9, c_{10}	$u^{44} + u^{43} + \cdots + u^2 + 1$
c_{11}	$u^{44} - 11u^{43} + \cdots - 12u + 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{44} + 25y^{43} + \cdots + 2y + 1$
c_2	$y^{44} - 11y^{43} + \cdots + 6y + 1$
c_3, c_7, c_8	$y^{44} - 47y^{43} + \cdots - 726y + 25$
c_4	$y^{44} + 5y^{43} + \cdots - 70y + 9$
c_5, c_9, c_{10}	$y^{44} - 39y^{43} + \cdots + 2y + 1$
c_{11}	$y^{44} + y^{43} + \cdots + 62y + 1$