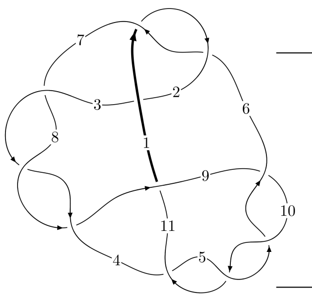
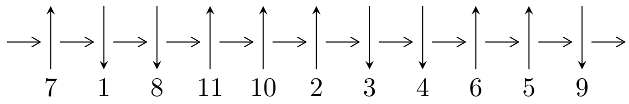
$11a_{188}$ ($K11a_{188}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{33} + u^{32} + \cdots - u - 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 33 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. $I_1^u = \langle u^{33} + u^{32} + \cdots - u - 1 \rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u \\ u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^5 - 2u^3 + u \\ u^5 + 3u^3 + u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^7 + 4u^5 + 4u^3 \\ u^9 + 5u^7 + 7u^5 + 2u^3 + u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^{12} - 7u^{10} - 17u^8 - 16u^6 - 4u^4 + u^2 + 1 \\ -u^{14} - 8u^{12} - 23u^{10} - 28u^8 - 14u^6 - 4u^4 + u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u^{24} - 13u^{22} + \cdots - 5u^4 + 1 \\ u^{24} + 14u^{22} + \cdots - 30u^6 - 10u^4 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u^{17} - 10u^{15} - 39u^{13} - 74u^{11} - 69u^9 - 26u^7 + 4u^5 + 8u^3 + u \\ -u^{19} - 11u^{17} + \cdots + 3u^3 + u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u^{17} - 10u^{15} - 39u^{13} - 74u^{11} - 69u^9 - 26u^7 + 4u^5 + 8u^3 + u \\ -u^{19} - 11u^{17} + \cdots + 3u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^{32} - 4u^{31} - 80u^{30} - 76u^{29} - 704u^{28} - 632u^{27} - 3580u^{26} - 3016u^{25} - 11624u^{24} - 9108u^{23} - 25160u^{22} - 18136u^{21} - 36848u^{20} - 24152u^{19} - 36272u^{18} - 21456u^{17} - 22940u^{16} - 12348u^{15} - 7568u^{14} - 3960u^{13} + 668u^{12} - 108u^{11} + 1756u^{10} + 388u^9 + 672u^8 + 200u^7 + 28u^6 + 44u^5 - 28u^4 + 32u^3 - 8u^2 + 12u + 2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{33} + u^{32} + \cdots + u + 1$
c_2	$u^{33} + 19u^{32} + \cdots - 3u - 1$
c_3, c_7, c_8	$u^{33} - u^{32} + \cdots + u + 5$
c_4, c_5, c_9 c_{10}	$u^{33} - u^{32} + \cdots - u + 1$
c_{11}	$u^{33} - 11u^{32} + \cdots + 825u - 187$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{33} + 19y^{32} + \cdots - 3y - 1$
c_2	$y^{33} - 9y^{32} + \cdots - 15y - 1$
c_3, c_7, c_8	$y^{33} - 37y^{32} + \cdots + 281y - 25$
c_4, c_5, c_9 c_{10}	$y^{33} + 39y^{32} + \cdots - 3y - 1$
c_{11}	$y^{33} - 21y^{32} + \cdots + 34353y - 34969$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.432708 + 0.835688I$	$-10.12330 + 1.05032I$	$-7.28000 + 0.76825I$
$u = -0.432708 - 0.835688I$	$-10.12330 - 1.05032I$	$-7.28000 - 0.76825I$
$u = -0.467680 + 0.807931I$	$-9.85167 - 8.36620I$	$-6.60862 + 7.12105I$
$u = -0.467680 - 0.807931I$	$-9.85167 + 8.36620I$	$-6.60862 - 7.12105I$
$u = 0.441389 + 0.806737I$	$-6.24327 + 3.55068I$	$-3.65965 - 4.08940I$
$u = 0.441389 - 0.806737I$	$-6.24327 - 3.55068I$	$-3.65965 + 4.08940I$
$u = 0.410896 + 0.632341I$	$-1.74331 + 5.24520I$	$-3.08967 - 9.50750I$
$u = 0.410896 - 0.632341I$	$-1.74331 - 5.24520I$	$-3.08967 + 9.50750I$
$u = 0.189812 + 0.728281I$	$-3.26709 - 0.39865I$	$-8.78755 - 0.39915I$
$u = 0.189812 - 0.728281I$	$-3.26709 + 0.39865I$	$-8.78755 + 0.39915I$
$u = -0.643564 + 0.026463I$	$-7.51632 + 4.64153I$	$-2.88542 - 3.11188I$
$u = -0.643564 - 0.026463I$	$-7.51632 - 4.64153I$	$-2.88542 + 3.11188I$
$u = -0.333302 + 0.543113I$	$0.01425 - 1.43543I$	$1.18967 + 5.27444I$
$u = -0.333302 - 0.543113I$	$0.01425 + 1.43543I$	$1.18967 - 5.27444I$
$u = 0.620531$	-3.83643	0.489420
$u = -0.347286 + 0.367281I$	$0.489336 - 1.105190I$	$3.80448 + 5.83190I$
$u = -0.347286 - 0.367281I$	$0.489336 + 1.105190I$	$3.80448 - 5.83190I$
$u = 0.445942 + 0.189934I$	$-0.50516 - 2.21066I$	$1.15388 + 3.33162I$
$u = 0.445942 - 0.189934I$	$-0.50516 + 2.21066I$	$1.15388 - 3.33162I$
$u = -0.02425 + 1.52826I$	$-5.83685 - 2.02148I$	0
$u = -0.02425 - 1.52826I$	$-5.83685 + 2.02148I$	0
$u = -0.07256 + 1.57034I$	$-7.21966 - 2.79655I$	0
$u = -0.07256 - 1.57034I$	$-7.21966 + 2.79655I$	0
$u = 0.10256 + 1.58115I$	$-9.24914 + 7.07591I$	0
$u = 0.10256 - 1.58115I$	$-9.24914 - 7.07591I$	0
$u = 0.04854 + 1.61236I$	$-11.31290 + 0.47869I$	0
$u = 0.04854 - 1.61236I$	$-11.31290 - 0.47869I$	0
$u = 0.12471 + 1.64061I$	$-14.6375 + 5.7063I$	0
$u = 0.12471 - 1.64061I$	$-14.6375 - 5.7063I$	0
$u = -0.13328 + 1.64240I$	$-18.2479 - 10.6589I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.13328 - 1.64240I$	$-18.2479 + 10.6589I$	0
$u = -0.11947 + 1.64926I$	$-18.6687 - 1.0564I$	0
$u = -0.11947 - 1.64926I$	$-18.6687 + 1.0564I$	0

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{33} + u^{32} + \cdots + u + 1$
c_2	$u^{33} + 19u^{32} + \cdots - 3u - 1$
c_3, c_7, c_8	$u^{33} - u^{32} + \cdots + u + 5$
c_4, c_5, c_9 c_{10}	$u^{33} - u^{32} + \cdots - u + 1$
c_{11}	$u^{33} - 11u^{32} + \cdots + 825u - 187$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{33} + 19y^{32} + \cdots - 3y - 1$
c_2	$y^{33} - 9y^{32} + \cdots - 15y - 1$
c_3, c_7, c_8	$y^{33} - 37y^{32} + \cdots + 281y - 25$
c_4, c_5, c_9 c_{10}	$y^{33} + 39y^{32} + \cdots - 3y - 1$
c_{11}	$y^{33} - 21y^{32} + \cdots + 34353y - 34969$