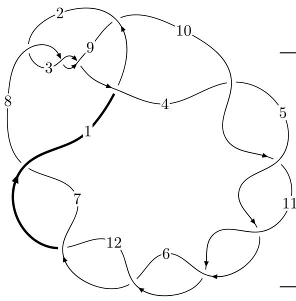
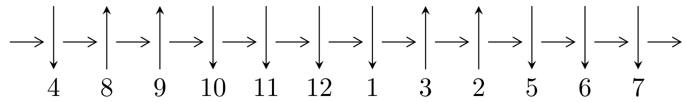
$12a_{1134}$ ($K12a_{1134}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$$4{,}9 \underset{c_3}{\rightarrow} 3 \underset{c_8}{\rightarrow} 8 \underset{c_2}{\rightarrow} 2 \underset{c_9}{\rightarrow} 10 \underset{c_4}{\rightarrow} 5 \underset{c_{10}}{\rightarrow} 11 \underset{c_1}{\rightarrow} 1 \underset{c_7}{\rightarrow} 7 \underset{c_{12}}{\rightarrow} 12 \underset{c_6}{\rightarrow} 6 \gg c_5, c_{11}$$

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

$$I_1^u = \langle u^{26} + u^{25} + \cdots + u - 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 26 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. $I_1^u = \langle u^{26} + u^{25} + \cdots + u - 1 \rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^5 - 2u^3 + u \\ u^7 - 3u^5 + 2u^3 + u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^{12} - 5u^{10} + 9u^8 - 6u^6 + u^2 + 1 \\ u^{14} - 6u^{12} + 13u^{10} - 10u^8 - 2u^6 + 4u^4 + u^2 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^{19} + 8u^{17} - 26u^{15} + 42u^{13} - 31u^{11} + 2u^9 + 8u^7 + 2u^5 - 5u^3 \\ -u^{21} + 9u^{19} + \cdots + u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^4 + u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u^{11} + 4u^9 - 4u^7 - 2u^5 + 3u^3 \\ -u^{11} + 5u^9 - 8u^7 + 3u^5 + u^3 + u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u^{18} - 7u^{16} + 18u^{14} - 17u^{12} - 5u^{10} + 17u^8 - 4u^6 - 4u^4 + u^2 + 1 \\ u^{18} - 8u^{16} + 25u^{14} - 36u^{12} + 19u^{10} + 4u^8 - 2u^6 - 4u^4 + u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u^{25} - 10u^{23} + \cdots + 6u^3 + u \\ u^{25} - 11u^{23} + \cdots + 2u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= 4u^{23} - 40u^{21} + 4u^{20} + 168u^{19} - 36u^{18} - 372u^{17} + 132u^{16} + 432u^{15} - 244u^{14} - 180u^{13} + 220u^{12} - 112u^{11} - 60u^{10} + 104u^9 - 24u^8 + 44u^7 - 12u^6 - 60u^5 + 32u^4 + 4u^3 - 12u^2 + 8u - 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{26} - 7u^{25} + \cdots + 9u - 1$
c_2, c_3, c_8	$u^{26} - u^{25} + \cdots - u - 1$
c_4, c_5, c_6 c_7, c_{10}, c_{11} c_{12}	$u^{26} + u^{25} + \cdots - u - 1$
c_9	$u^{26} + 3u^{25} + \cdots - u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{26} - 3y^{25} + \cdots - 95y + 1$
c_2, c_3, c_8	$y^{26} - 23y^{25} + \cdots + y + 1$
c_4, c_5, c_6 c_7, c_{10}, c_{11} c_{12}	$y^{26} - 39y^{25} + \cdots + y + 1$
c_9	$y^{26} + 5y^{25} + \cdots - 15y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \quad 0.891799 + 0.372496I$	$19.3462 - 0.3402I$	$-10.26447 - 1.14724I$
$u = \quad 0.891799 - 0.372496I$	$19.3462 + 0.3402I$	$-10.26447 + 1.14724I$
$u = -0.866485 + 0.257559I$	$-8.04758 + 0.11056I$	$-10.05758 + 0.78077I$
$u = -0.866485 - 0.257559I$	$-8.04758 - 0.11056I$	$-10.05758 - 0.78077I$
$u = \quad 1.12854$	-0.740334	-9.59910
$u = \quad 0.228765 + 0.778851I$	$17.2367 + 4.5531I$	$-12.97139 - 3.36886I$
$u = \quad 0.228765 - 0.778851I$	$17.2367 - 4.5531I$	$-12.97139 + 3.36886I$
$u = -0.215891 + 0.734545I$	$-10.14730 - 3.92865I$	$-13.03714 + 4.14659I$
$u = -0.215891 - 0.734545I$	$-10.14730 + 3.92865I$	$-13.03714 - 4.14659I$
$u = \quad 0.192441 + 0.646528I$	$-3.00631 + 2.75009I$	$-12.34966 - 6.37378I$
$u = \quad 0.192441 - 0.646528I$	$-3.00631 - 2.75009I$	$-12.34966 + 6.37378I$
$u = -1.331930 + 0.143170I$	$3.61530 - 0.91095I$	$-3.48404 - 2.64095I$
$u = -1.331930 - 0.143170I$	$3.61530 + 0.91095I$	$-3.48404 + 2.64095I$
$u = \quad 1.357100 + 0.206224I$	$4.55876 + 3.52628I$	$0.01063 - 5.04166I$
$u = \quad 1.357100 - 0.206224I$	$4.55876 - 3.52628I$	$0.01063 + 5.04166I$
$u = \quad 1.39126$	-1.42561	-6.03630
$u = -1.367970 + 0.256979I$	$1.93805 - 6.04513I$	$-6.52131 + 7.17823I$
$u = -1.367970 - 0.256979I$	$1.93805 + 6.04513I$	$-6.52131 - 7.17823I$
$u = \quad 1.38292 + 0.29669I$	$-5.07741 + 7.66568I$	$-8.32222 - 5.28086I$
$u = \quad 1.38292 - 0.29669I$	$-5.07741 - 7.66568I$	$-8.32222 + 5.28086I$
$u = -1.39494 + 0.31870I$	$-17.0884 - 8.5238I$	$-8.63563 + 4.48518I$
$u = -1.39494 - 0.31870I$	$-17.0884 + 8.5238I$	$-8.63563 - 4.48518I$
$u = -1.45112$	-12.7431	-6.07560
$u = -0.148897 + 0.482916I$	$-0.243470 - 0.910015I$	$-5.42028 + 7.09494I$
$u = -0.148897 - 0.482916I$	$-0.243470 + 0.910015I$	$-5.42028 - 7.09494I$
$u = \quad 0.477495$	-1.12957	-8.18280

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$u^{26} - 7u^{25} + \cdots + 9u - 1$
c_2, c_3, c_8	$u^{26} - u^{25} + \cdots - u - 1$
c_4, c_5, c_6 c_7, c_{10}, c_{11} c_{12}	$u^{26} + u^{25} + \cdots - u - 1$
c_9	$u^{26} + 3u^{25} + \cdots - u + 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$y^{26} - 3y^{25} + \cdots - 95y + 1$
c_2, c_3, c_8	$y^{26} - 23y^{25} + \cdots + y + 1$
c_4, c_5, c_6 c_7, c_{10}, c_{11} c_{12}	$y^{26} - 39y^{25} + \cdots + y + 1$
c_9	$y^{26} + 5y^{25} + \cdots - 15y + 1$