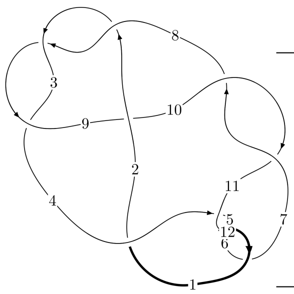
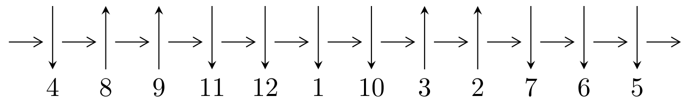
$12a_{1146}$ $(K12a_{1146})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{58} - u^{57} + \cdots - u + 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 58 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. $I_1^u = \langle u^{58} - u^{57} + \cdots - u + 1 \rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^2 + 1 \\ u^4 - 2u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^3 + 2u \\ -u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^6 - 3u^4 + 2u^2 + 1 \\ -u^8 + 4u^6 - 4u^4 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^7 - 4u^5 + 4u^3 \\ u^7 - 3u^5 + 2u^3 + u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^{11} + 6u^9 - 12u^7 + 8u^5 - u^3 + 2u \\ -u^{11} + 5u^9 - 8u^7 + 3u^5 + u^3 + u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u^{26} + 13u^{24} + \cdots + u^2 + 1 \\ -u^{26} + 12u^{24} + \cdots + 6u^4 - u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u^{21} - 10u^{19} + \cdots + 10u^3 + u \\ -u^{23} + 11u^{21} + \cdots + 2u^3 + u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u^{55} - 26u^{53} + \cdots + 10u^5 + 2u \\ -u^{57} + 27u^{55} + \cdots + 2u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u^{55} - 104u^{53} + \cdots - 12u - 2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7, c_{10}	$u^{58} - 7u^{57} + \cdots - 79u + 7$
c_2, c_3, c_8	$u^{58} - u^{57} + \cdots - u + 1$
c_4, c_6	$u^{58} - u^{57} + \cdots - 3u + 2$
c_5, c_{11}, c_{12}	$u^{58} + u^{57} + \cdots + u + 1$
c_9	$u^{58} + 3u^{57} + \cdots - 129u - 192$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7, c_{10}	$y^{58} + 61y^{57} + \cdots + 913y + 49$
c_2, c_3, c_8	$y^{58} - 55y^{57} + \cdots + 5y + 1$
c_4, c_6	$y^{58} - 27y^{57} + \cdots + 23y + 4$
c_5, c_{11}, c_{12}	$y^{58} + 49y^{57} + \cdots + 5y + 1$
c_9	$y^{58} - 27y^{57} + \cdots - 1316865y + 36864$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.14724$	-1.35276	0
$u = 1.151380 + 0.058161I$	$2.53228 + 3.79612I$	0
$u = 1.151380 - 0.058161I$	$2.53228 - 3.79612I$	0
$u = 0.481555 + 0.664903I$	$11.99140 + 2.20783I$	$4.22893 - 3.07025I$
$u = 0.481555 - 0.664903I$	$11.99140 - 2.20783I$	$4.22893 + 3.07025I$
$u = -0.443054 + 0.686901I$	$7.60131 - 10.06700I$	$0.80807 + 7.84045I$
$u = -0.443054 - 0.686901I$	$7.60131 + 10.06700I$	$0.80807 - 7.84045I$
$u = -0.515153 + 0.627947I$	$7.87503 + 5.69223I$	$1.58915 - 1.87939I$
$u = -0.515153 - 0.627947I$	$7.87503 - 5.69223I$	$1.58915 + 1.87939I$
$u = 0.438326 + 0.675169I$	$2.65616 + 6.14445I$	$-3.69389 - 6.69694I$
$u = 0.438326 - 0.675169I$	$2.65616 - 6.14445I$	$-3.69389 + 6.69694I$
$u = 0.501005 + 0.618665I$	$2.90568 - 1.85234I$	$-2.97160 + 0.63684I$
$u = 0.501005 - 0.618665I$	$2.90568 + 1.85234I$	$-2.97160 - 0.63684I$
$u = -0.442362 + 0.648377I$	$5.01043 - 2.20484I$	$-0.34907 + 2.50917I$
$u = -0.442362 - 0.648377I$	$5.01043 + 2.20484I$	$-0.34907 - 2.50917I$
$u = -0.466755 + 0.626215I$	$5.10910 - 1.98014I$	$0.15978 + 4.14976I$
$u = -0.466755 - 0.626215I$	$5.10910 + 1.98014I$	$0.15978 - 4.14976I$
$u = -1.307560 + 0.189347I$	$4.08058 - 1.65712I$	0
$u = -1.307560 - 0.189347I$	$4.08058 + 1.65712I$	0
$u = 1.331250 + 0.207988I$	$0.86765 + 5.45245I$	0
$u = 1.331250 - 0.207988I$	$0.86765 - 5.45245I$	0
$u = 0.188380 + 0.617055I$	$0.49984 + 6.30818I$	$-4.83696 - 8.02356I$
$u = 0.188380 - 0.617055I$	$0.49984 - 6.30818I$	$-4.83696 + 8.02356I$
$u = 1.354390 + 0.050533I$	$3.56112 + 0.15774I$	0
$u = 1.354390 - 0.050533I$	$3.56112 - 0.15774I$	0
$u = -1.351690 + 0.130313I$	$4.61294 - 2.74721I$	0
$u = -1.351690 - 0.130313I$	$4.61294 + 2.74721I$	0
$u = -1.345480 + 0.220131I$	$5.32159 - 9.34589I$	0
$u = -1.345480 - 0.220131I$	$5.32159 + 9.34589I$	0
$u = -0.155934 + 0.602452I$	$-3.78873 - 2.51425I$	$-10.60618 + 5.42125I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.155934 - 0.602452I$	$-3.78873 + 2.51425I$	$-10.60618 - 5.42125I$
$u = 0.107983 + 0.596551I$	$-0.304445 - 1.182970I$	$-7.28418 - 0.76991I$
$u = 0.107983 - 0.596551I$	$-0.304445 + 1.182970I$	$-7.28418 + 0.76991I$
$u = -0.366762 + 0.465079I$	$4.44827 - 1.54185I$	$2.24711 + 4.56850I$
$u = -0.366762 - 0.465079I$	$4.44827 + 1.54185I$	$2.24711 - 4.56850I$
$u = -1.411190 + 0.054492I$	$8.16493 + 2.73473I$	0
$u = -1.411190 - 0.054492I$	$8.16493 - 2.73473I$	0
$u = 1.40642 + 0.15083I$	$10.05250 + 3.76035I$	0
$u = 1.40642 - 0.15083I$	$10.05250 - 3.76035I$	0
$u = 0.547094 + 0.139034I$	$2.23185 - 3.44215I$	$0.89332 + 2.64024I$
$u = 0.547094 - 0.139034I$	$2.23185 + 3.44215I$	$0.89332 - 2.64024I$
$u = -0.511205$	-1.78784	-4.31540
$u = 1.47373 + 0.23609I$	$11.19640 + 5.44235I$	0
$u = 1.47373 - 0.23609I$	$11.19640 - 5.44235I$	0
$u = 1.47805 + 0.22330I$	$11.39260 + 5.08524I$	0
$u = 1.47805 - 0.22330I$	$11.39260 - 5.08524I$	0
$u = -1.47640 + 0.24549I$	$8.84229 - 9.50759I$	0
$u = -1.47640 - 0.24549I$	$8.84229 + 9.50759I$	0
$u = -1.48567 + 0.21307I$	$9.33313 - 1.16891I$	0
$u = -1.48567 - 0.21307I$	$9.33313 + 1.16891I$	0
$u = 1.48008 + 0.24923I$	$13.8182 + 13.4851I$	0
$u = 1.48008 - 0.24923I$	$13.8182 - 13.4851I$	0
$u = 1.49285 + 0.21200I$	$14.3880 - 2.6478I$	0
$u = 1.49285 - 0.21200I$	$14.3880 + 2.6478I$	0
$u = -1.49028 + 0.23319I$	$18.3827 - 5.4813I$	0
$u = -1.49028 - 0.23319I$	$18.3827 + 5.4813I$	0
$u = 0.155026 + 0.396579I$	$-0.139434 + 0.781761I$	$-4.01123 - 8.80292I$
$u = 0.155026 - 0.396579I$	$-0.139434 - 0.781761I$	$-4.01123 + 8.80292I$

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_7, c_{10}	$u^{58} - 7u^{57} + \cdots - 79u + 7$
c_2, c_3, c_8	$u^{58} - u^{57} + \cdots - u + 1$
c_4, c_6	$u^{58} - u^{57} + \cdots - 3u + 2$
c_5, c_{11}, c_{12}	$u^{58} + u^{57} + \cdots + u + 1$
c_9	$u^{58} + 3u^{57} + \cdots - 129u - 192$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7, c_{10}	$y^{58} + 61y^{57} + \cdots + 913y + 49$
c_2, c_3, c_8	$y^{58} - 55y^{57} + \cdots + 5y + 1$
c_4, c_6	$y^{58} - 27y^{57} + \cdots + 23y + 4$
c_5, c_{11}, c_{12}	$y^{58} + 49y^{57} + \cdots + 5y + 1$
c_9	$y^{58} - 27y^{57} + \cdots - 1316865y + 36864$