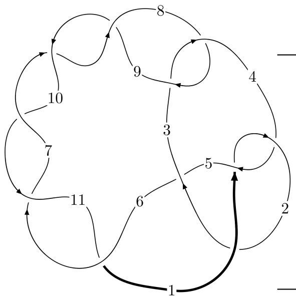
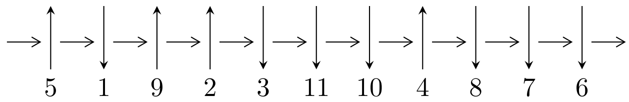
$11a_{13}$ ($K11a_{13}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{30} + u^{29} + \cdots + u + 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 30 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. $I_1^u = \langle u^{30} + u^{29} + \cdots + u + 1\rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^2+1 \\ -u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u \\ u^3+u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^4+u^2+1 \\ -u^4 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^6+u^4+2u^2+1 \\ -u^6-u^2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u^8+u^6+3u^4+2u^2+1 \\ -u^8-2u^4 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^{10}+u^8+4u^6+3u^4+3u^2+1 \\ -u^{10}-3u^6-u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u^{23}+2u^{21}+\cdots+18u^5+6u^3 \\ -u^{23}-u^{21}+\cdots-3u^5+u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^{12}+u^{10}+5u^8+4u^6+6u^4+3u^2+1 \\ -u^{14}-2u^{12}-5u^{10}-8u^8-6u^6-6u^4-u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^{12}+u^{10}+5u^8+4u^6+6u^4+3u^2+1 \\ -u^{14}-2u^{12}-5u^{10}-8u^8-6u^6-6u^4-u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^{28} - 4u^{27} - 12u^{26} - 8u^{25} - 56u^{24} - 44u^{23} - 120u^{22} - 72u^{21} - 288u^{20} - 184u^{19} - 448u^{18} - 240u^{17} - 688u^{16} - 372u^{15} - 772u^{14} - 376u^{13} - 784u^{12} - 392u^{11} - 616u^{10} - 300u^9 - 392u^8 - 220u^7 - 196u^6 - 112u^5 - 64u^4 - 52u^3 - 16u^2 - 12u - 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{30} + u^{29} + \cdots + 3u + 1$
c_2	$u^{30} + 13u^{29} + \cdots + 3u + 1$
c_3, c_8	$u^{30} + u^{29} + \cdots + u + 1$
c_5	$u^{30} - u^{29} + \cdots - 9u + 1$
c_6, c_7, c_9 c_{10}, c_{11}	$u^{30} + 5u^{29} + \cdots + 3u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{30} + 13y^{29} + \cdots + 3y + 1$
c_2	$y^{30} + 9y^{29} + \cdots + 23y + 1$
c_3, c_8	$y^{30} + 5y^{29} + \cdots + 3y + 1$
c_5	$y^{30} + 5y^{29} + \cdots - 29y + 1$
c_6, c_7, c_9 c_{10}, c_{11}	$y^{30} + 41y^{29} + \cdots + 15y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.576972 + 0.788172I$	$0.12621 + 2.18606I$	$-3.44242 - 4.00116I$
$u = 0.576972 - 0.788172I$	$0.12621 - 2.18606I$	$-3.44242 + 4.00116I$
$u = 0.753269 + 0.693656I$	$3.64770 - 3.48747I$	$1.74738 + 2.61442I$
$u = 0.753269 - 0.693656I$	$3.64770 + 3.48747I$	$1.74738 - 2.61442I$
$u = -0.734724 + 0.748106I$	$5.14265 - 1.49049I$	$4.17557 + 2.85810I$
$u = -0.734724 - 0.748106I$	$5.14265 + 1.49049I$	$4.17557 - 2.85810I$
$u = -0.685664 + 0.853521I$	$4.78950 - 3.76974I$	$3.14381 + 3.88461I$
$u = -0.685664 - 0.853521I$	$4.78950 + 3.76974I$	$3.14381 - 3.88461I$
$u = -0.287305 + 0.847959I$	$-2.28263 - 5.27377I$	$-6.56092 + 8.94909I$
$u = -0.287305 - 0.847959I$	$-2.28263 + 5.27377I$	$-6.56092 - 8.94909I$
$u = 0.664026 + 0.894813I$	$2.98040 + 8.73007I$	$-0.24401 - 8.71246I$
$u = 0.664026 - 0.894813I$	$2.98040 - 8.73007I$	$-0.24401 + 8.71246I$
$u = -0.115414 + 0.820064I$	$-3.15838 + 1.07159I$	$-10.31816 - 0.17759I$
$u = -0.115414 - 0.820064I$	$-3.15838 - 1.07159I$	$-10.31816 + 0.17759I$
$u = 0.290049 + 0.709988I$	$-0.316552 + 1.365600I$	$-2.18848 - 5.41625I$
$u = 0.290049 - 0.709988I$	$-0.316552 - 1.365600I$	$-2.18848 + 5.41625I$
$u = -0.911746 + 0.940114I$	$9.51868 - 3.35799I$	$-1.73657 + 2.30059I$
$u = -0.911746 - 0.940114I$	$9.51868 + 3.35799I$	$-1.73657 - 2.30059I$
$u = -0.939027 + 0.928155I$	$13.7360 + 3.9165I$	$1.75197 - 2.34228I$
$u = -0.939027 - 0.928155I$	$13.7360 - 3.9165I$	$1.75197 + 2.34228I$
$u = 0.935072 + 0.937925I$	$15.4906 + 1.5996I$	$4.05928 - 2.15774I$
$u = 0.935072 - 0.937925I$	$15.4906 - 1.5996I$	$4.05928 + 2.15774I$
$u = 0.922373 + 0.959915I$	$15.4175 + 5.2269I$	$3.92816 - 2.38623I$
$u = 0.922373 - 0.959915I$	$15.4175 - 5.2269I$	$3.92816 + 2.38623I$
$u = -0.916401 + 0.967754I$	$13.6047 - 10.7354I$	$1.48227 + 6.83107I$
$u = -0.916401 - 0.967754I$	$13.6047 + 10.7354I$	$1.48227 - 6.83107I$
$u = 0.459289 + 0.421277I$	$0.49693 + 1.38708I$	$2.54940 - 4.49142I$
$u = 0.459289 - 0.421277I$	$0.49693 - 1.38708I$	$2.54940 + 4.49142I$
$u = -0.510769 + 0.183576I$	$-0.23650 + 2.48738I$	$1.65273 - 3.25175I$
$u = -0.510769 - 0.183576I$	$-0.23650 - 2.48738I$	$1.65273 + 3.25175I$

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{30} + u^{29} + \cdots + 3u + 1$
c_2	$u^{30} + 13u^{29} + \cdots + 3u + 1$
c_3, c_8	$u^{30} + u^{29} + \cdots + u + 1$
c_5	$u^{30} - u^{29} + \cdots - 9u + 1$
c_6, c_7, c_9 c_{10}, c_{11}	$u^{30} + 5u^{29} + \cdots + 3u + 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{30} + 13y^{29} + \cdots + 3y + 1$
c_2	$y^{30} + 9y^{29} + \cdots + 23y + 1$
c_3, c_8	$y^{30} + 5y^{29} + \cdots + 3y + 1$
c_5	$y^{30} + 5y^{29} + \cdots - 29y + 1$
c_6, c_7, c_9 c_{10}, c_{11}	$y^{30} + 41y^{29} + \cdots + 15y + 1$