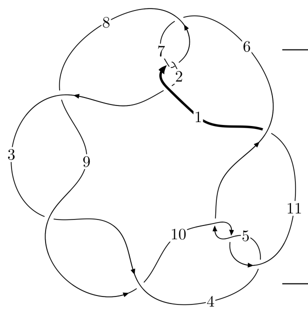
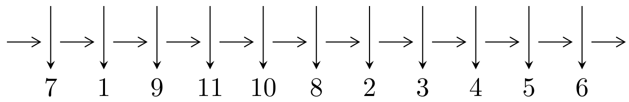
$11a_{235}$ ($K11a_{235}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{35} - u^{34} + \cdots - 4u + 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 35 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. $I_1^u = \langle u^{35} - u^{34} + \cdots - 4u + 1 \rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^5 - 2u^3 - u \\ -u^7 - 3u^5 - 2u^3 + u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^3 + 2u \\ u^3 + u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^6 - 3u^4 - 2u^2 + 1 \\ -u^6 - 2u^4 - u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^{18} + 7u^{16} + 20u^{14} + 27u^{12} + 11u^{10} - 13u^8 - 16u^6 - 6u^4 - u^2 + 1 \\ u^{20} + 8u^{18} + 26u^{16} + 40u^{14} + 19u^{12} - 24u^{10} - 30u^8 - 2u^6 + 5u^4 - 2u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^9 - 4u^7 - 5u^5 + 3u \\ -u^9 - 3u^7 - 3u^5 + u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u^{22} - 9u^{20} + \cdots + 4u^2 + 1 \\ -u^{22} - 8u^{20} + \cdots - 4u^4 + 3u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u^{22} - 9u^{20} + \cdots + 4u^2 + 1 \\ -u^{22} - 8u^{20} + \cdots - 4u^4 + 3u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= 4u^{34} - 4u^{33} + 52u^{32} - 48u^{31} + 300u^{30} - 256u^{29} + 980u^{28} - 772u^{27} + 1868u^{26} - 1352u^{25} + 1680u^{24} - 1100u^{23} - 756u^{22} + 500u^{21} - 3692u^{20} + 2060u^{19} - 3200u^{18} + 1536u^{17} + 804u^{16} - 428u^{15} + 3104u^{14} - 1136u^{13} + 1216u^{12} - 208u^{11} - 976u^{10} + 368u^9 - 704u^8 + 64u^7 + 136u^6 - 128u^5 + 128u^4 - 24u^3 - 28u^2 + 20u - 22$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{35} + u^{34} + \cdots - 2u - 1$
c_2, c_6	$u^{35} + 13u^{34} + \cdots + 10u + 1$
c_3, c_8, c_9 c_{11}	$u^{35} - u^{34} + \cdots - 8u - 1$
c_4, c_5, c_{10}	$u^{35} + u^{34} + \cdots - 4u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{35} - 13y^{34} + \cdots + 10y - 1$
c_2, c_6	$y^{35} + 19y^{34} + \cdots + 26y - 1$
c_3, c_8, c_9 c_{11}	$y^{35} - 41y^{34} + \cdots + 26y - 1$
c_4, c_5, c_{10}	$y^{35} + 27y^{34} + \cdots + 10y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.154678 + 1.010450I$	$1.47757 - 2.06754I$	$-12.18012 + 2.63820I$
$u = -0.154678 - 1.010450I$	$1.47757 + 2.06754I$	$-12.18012 - 2.63820I$
$u = \ \ 0.908910$	-13.2599	-19.8870
$u = \ \ 0.902196 + 0.033304I$	$-9.04332 - 7.10158I$	$-16.2339 + 4.8820I$
$u = \ \ 0.902196 - 0.033304I$	$-9.04332 + 7.10158I$	$-16.2339 - 4.8820I$
$u = -0.889066 + 0.023250I$	$-7.40598 + 1.64045I$	$-14.07012 - 0.25947I$
$u = -0.889066 - 0.023250I$	$-7.40598 - 1.64045I$	$-14.07012 + 0.25947I$
$u = \ \ 0.126515 + 1.195620I$	$2.79133 - 1.62971I$	$-6.97786 + 4.00042I$
$u = \ \ 0.126515 - 1.195620I$	$2.79133 + 1.62971I$	$-6.97786 - 4.00042I$
$u = -0.253657 + 1.196640I$	$-0.75414 + 3.23838I$	$-15.3127 - 4.6996I$
$u = -0.253657 - 1.196640I$	$-0.75414 - 3.23838I$	$-15.3127 + 4.6996I$
$u = \ \ 0.198838 + 1.295440I$	$4.68045 - 2.80636I$	$-6.46642 + 3.03616I$
$u = \ \ 0.198838 - 1.295440I$	$4.68045 + 2.80636I$	$-6.46642 - 3.03616I$
$u = \ \ 0.016865 + 1.315770I$	$6.80865 - 2.68270I$	$-3.85369 + 3.32127I$
$u = \ \ 0.016865 - 1.315770I$	$6.80865 + 2.68270I$	$-3.85369 - 3.32127I$
$u = -0.229253 + 1.304350I$	$3.85759 + 8.16795I$	$-8.47769 - 8.32654I$
$u = -0.229253 - 1.304350I$	$3.85759 - 8.16795I$	$-8.47769 + 8.32654I$
$u = \ \ 0.441243 + 1.254100I$	$-5.26665 + 2.30484I$	$-13.10183 - 1.73912I$
$u = \ \ 0.441243 - 1.254100I$	$-5.26665 - 2.30484I$	$-13.10183 + 1.73912I$
$u = -0.426047 + 1.260090I$	$-3.57477 + 3.06228I$	$-10.68806 - 2.96548I$
$u = -0.426047 - 1.260090I$	$-3.57477 - 3.06228I$	$-10.68806 + 2.96548I$
$u = \ \ 0.437322 + 1.284290I$	$-9.27089 - 4.80858I$	$-16.4615 + 3.1101I$
$u = \ \ 0.437322 - 1.284290I$	$-9.27089 + 4.80858I$	$-16.4615 - 3.1101I$
$u = -0.638167$	-4.33695	-20.8200
$u = -0.610512 + 0.184495I$	$-0.75413 + 5.18051I$	$-14.8353 - 7.3100I$
$u = -0.610512 - 0.184495I$	$-0.75413 - 5.18051I$	$-14.8353 + 7.3100I$
$u = -0.416900 + 1.297630I$	$-3.29192 + 6.31527I$	$-10.32852 - 3.15989I$
$u = -0.416900 - 1.297630I$	$-3.29192 - 6.31527I$	$-10.32852 + 3.15989I$
$u = \ \ 0.423822 + 1.307190I$	$-4.86404 - 11.84450I$	$-12.4530 + 7.6430I$
$u = \ \ 0.423822 - 1.307190I$	$-4.86404 + 11.84450I$	$-12.4530 - 7.6430I$

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u =$	$0.520978 + 0.193769I$	$0.117264 - 0.215670I$	$-13.04627 + 2.21794I$
$u =$	$0.520978 - 0.193769I$	$0.117264 + 0.215670I$	$-13.04627 - 2.21794I$
$u =$	$0.123574 + 0.525438I$	$1.48613 - 2.36443I$	$-8.99438 + 4.59259I$
$u =$	$0.123574 - 0.525438I$	$1.48613 + 2.36443I$	$-8.99438 - 4.59259I$
$u =$	0.306778	-0.541818	-18.3300

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{35} + u^{34} + \cdots - 2u - 1$
c_2, c_6	$u^{35} + 13u^{34} + \cdots + 10u + 1$
c_3, c_8, c_9 c_{11}	$u^{35} - u^{34} + \cdots - 8u - 1$
c_4, c_5, c_{10}	$u^{35} + u^{34} + \cdots - 4u - 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{35} - 13y^{34} + \cdots + 10y - 1$
c_2, c_6	$y^{35} + 19y^{34} + \cdots + 26y - 1$
c_3, c_8, c_9 c_{11}	$y^{35} - 41y^{34} + \cdots + 26y - 1$
c_4, c_5, c_{10}	$y^{35} + 27y^{34} + \cdots + 10y - 1$