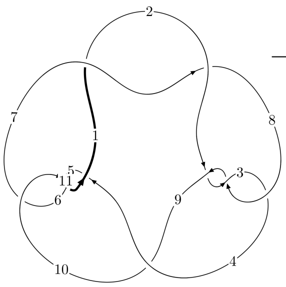
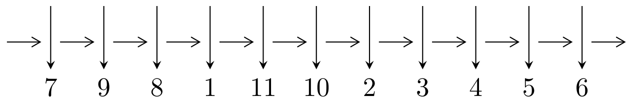
$11a_{356}$ $(K11a_{356})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{39} - u^{38} + \cdots - 2u - 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 39 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. $I_1^u = \langle u^{39} - u^{38} + \cdots - 2u - 1 \rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u^5 - 2u^3 - u \\ -u^7 - 3u^5 - 2u^3 + u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^3 + 2u \\ u^3 + u \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} -u^{16} - 7u^{14} - 19u^{12} - 22u^{10} - 3u^8 + 14u^6 + 6u^4 - 2u^2 + 1 \\ -u^{16} - 6u^{14} - 14u^{12} - 14u^{10} - 2u^8 + 6u^6 + 4u^4 + 2u^2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^{15} - 6u^{13} - 14u^{11} - 14u^9 - 2u^7 + 6u^5 + 4u^3 + 2u \\ -u^{17} - 7u^{15} - 19u^{13} - 22u^{11} - 3u^9 + 14u^7 + 6u^5 - 2u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^{38} + 15u^{36} + \cdots - 4u^2 + 1 \\ u^{38} - u^{37} + \cdots + 3u + 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^{38} + 15u^{36} + \cdots - 4u^2 + 1 \\ u^{38} - u^{37} + \cdots + 3u + 1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= -4u^{37} + 4u^{36} - 60u^{35} + 56u^{34} - 408u^{33} + 352u^{32} - 1632u^{31} + 1284u^{30} - 4136u^{29} + 2900u^{28} - 6488u^{27} + 3844u^{26} - 4940u^{25} + 1868u^{24} + 2188u^{23} - 2704u^{22} + 9160u^{21} - 5360u^{20} + 7744u^{19} - 2920u^{18} - 468u^{17} + 1192u^{16} - 5148u^{15} + 2160u^{14} - 2700u^{13} + 768u^{12} + 540u^{11} - 24u^{10} + 756u^9 - 96u^8 + 112u^7 - 140u^6 + 12u^5 - 68u^4 + 16u^3 - 4u^2 + 4u - 18$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7, c_9	$u^{39} + u^{38} + \cdots - 26u - 5$
c_2, c_3, c_8	$u^{39} - u^{38} + \cdots - 2u - 1$
c_4, c_6	$u^{39} + 3u^{38} + \cdots - 4u - 1$
c_5, c_{10}, c_{11}	$u^{39} - u^{38} + \cdots - 2u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7, c_9	$y^{39} - 37y^{38} + \cdots + 276y - 25$
c_2, c_3, c_8	$y^{39} + 31y^{38} + \cdots + 12y - 1$
c_4, c_6	$y^{39} + 19y^{38} + \cdots + 12y - 1$
c_5, c_{10}, c_{11}	$y^{39} - 33y^{38} + \cdots + 12y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.184373 + 1.113280I$	$-1.87456 - 2.88869I$	$-14.2614 + 3.8496I$
$u = 0.184373 - 1.113280I$	$-1.87456 + 2.88869I$	$-14.2614 - 3.8496I$
$u = -0.870700$	-12.5889	-20.2660
$u = 0.859957 + 0.065950I$	$-8.34775 - 7.83020I$	$-17.2097 + 5.1907I$
$u = 0.859957 - 0.065950I$	$-8.34775 + 7.83020I$	$-17.2097 - 5.1907I$
$u = -0.840218 + 0.059790I$	$-3.40399 + 3.95494I$	$-12.75445 - 3.98902I$
$u = -0.840218 - 0.059790I$	$-3.40399 - 3.95494I$	$-12.75445 + 3.98902I$
$u = 0.814161 + 0.022766I$	$-5.70205 - 0.09754I$	$-16.2351 - 0.6362I$
$u = 0.814161 - 0.022766I$	$-5.70205 + 0.09754I$	$-16.2351 + 0.6362I$
$u = -0.062866 + 1.207990I$	$2.96167 + 1.25323I$	$-8.48961 - 5.22711I$
$u = -0.062866 - 1.207990I$	$2.96167 - 1.25323I$	$-8.48961 + 5.22711I$
$u = -0.383266 + 1.213820I$	$0.146925 + 0.444639I$	$-9.41731 + 0.59689I$
$u = -0.383266 - 1.213820I$	$0.146925 - 0.444639I$	$-9.41731 - 0.59689I$
$u = 0.407915 + 1.208990I$	$-4.82928 + 3.28352I$	$-14.1252 - 1.7536I$
$u = 0.407915 - 1.208990I$	$-4.82928 - 3.28352I$	$-14.1252 + 1.7536I$
$u = 0.366310 + 1.256220I$	$-1.87897 - 4.14984I$	$-12.49254 + 4.42068I$
$u = 0.366310 - 1.256220I$	$-1.87897 + 4.14984I$	$-12.49254 - 4.42068I$
$u = -0.407478 + 1.273380I$	$-8.63550 + 4.57833I$	$-16.5882 - 3.2538I$
$u = -0.407478 - 1.273380I$	$-8.63550 - 4.57833I$	$-16.5882 + 3.2538I$
$u = 0.362109 + 1.293340I$	$-1.59442 - 4.32741I$	$-11.59101 + 2.45124I$
$u = 0.362109 - 1.293340I$	$-1.59442 + 4.32741I$	$-11.59101 - 2.45124I$
$u = -0.091582 + 1.340430I$	$3.95422 - 0.66385I$	$-6.81341 + 0.I$
$u = -0.091582 - 1.340430I$	$3.95422 + 0.66385I$	$-6.81341 + 0.I$
$u = 0.126262 + 1.340800I$	$7.43974 - 3.24701I$	$-3.23245 + 3.90104I$
$u = 0.126262 - 1.340800I$	$7.43974 + 3.24701I$	$-3.23245 - 3.90104I$
$u = -0.153420 + 1.344440I$	$3.18314 + 7.20185I$	$-8.30980 - 6.60092I$
$u = -0.153420 - 1.344440I$	$3.18314 - 7.20185I$	$-8.30980 + 6.60092I$
$u = -0.378228 + 1.313410I$	$0.88961 + 8.33524I$	$-8.46162 - 6.44444I$
$u = -0.378228 - 1.313410I$	$0.88961 - 8.33524I$	$-8.46162 + 6.44444I$
$u = 0.389378 + 1.319710I$	$-4.01328 - 12.31500I$	$-12.9972 + 7.6973I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.389378 - 1.319710I$	$-4.01328 + 12.31500I$	$-12.9972 - 7.6973I$
$u = -0.492543 + 0.335168I$	$-2.04249 + 4.99221I$	$-14.0623 - 7.3168I$
$u = -0.492543 - 0.335168I$	$-2.04249 - 4.99221I$	$-14.0623 + 7.3168I$
$u = \quad 0.582761$	-5.05980	-19.3550
$u = -0.317690 + 0.458841I$	$-1.46078 - 1.97639I$	$-11.86139 - 0.45941I$
$u = -0.317690 - 0.458841I$	$-1.46078 + 1.97639I$	$-11.86139 + 0.45941I$
$u = \quad 0.409039 + 0.362185I$	$2.19576 - 1.42469I$	$-7.96461 + 5.04290I$
$u = \quad 0.409039 - 0.362185I$	$2.19576 + 1.42469I$	$-7.96461 - 5.04290I$
$u = -0.296485$	-0.479709	-20.6440

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_7, c_9	$u^{39} + u^{38} + \cdots - 26u - 5$
c_2, c_3, c_8	$u^{39} - u^{38} + \cdots - 2u - 1$
c_4, c_6	$u^{39} + 3u^{38} + \cdots - 4u - 1$
c_5, c_{10}, c_{11}	$u^{39} - u^{38} + \cdots - 2u - 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7, c_9	$y^{39} - 37y^{38} + \cdots + 276y - 25$
c_2, c_3, c_8	$y^{39} + 31y^{38} + \cdots + 12y - 1$
c_4, c_6	$y^{39} + 19y^{38} + \cdots + 12y - 1$
c_5, c_{10}, c_{11}	$y^{39} - 33y^{38} + \cdots + 12y - 1$