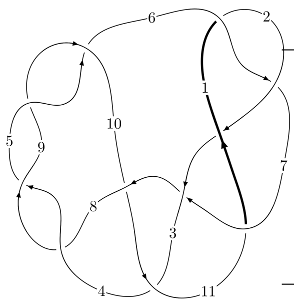
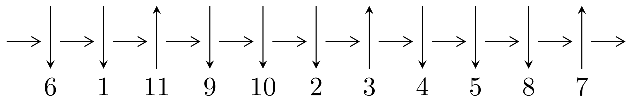
$11a_{177}$ ($K11a_{177}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{48} - u^{47} + \cdots + 2u^2 - 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 48 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. $I_1^u = \langle u^{48} - u^{47} + \cdots + 2u^2 - 1 \rangle$

(i) Arc colorings

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

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} u \\ u \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} u^8 - u^6 + u^4 + 1 \\ u^8 - 2u^6 + 2u^4 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^3 \\ u^5 - u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u^{11} - 2u^9 + 2u^7 - u^3 \\ u^{13} - 3u^{11} + 5u^9 - 4u^7 + 2u^5 - u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u^{32} - 7u^{30} + \cdots + 2u^{12} + 1 \\ u^{34} - 8u^{32} + \cdots + 4u^6 + u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^{21} - 4u^{19} + 9u^{17} - 12u^{15} + 12u^{13} - 10u^{11} + 9u^9 - 6u^7 + 3u^5 + u \\ u^{21} - 5u^{19} + 13u^{17} - 20u^{15} + 20u^{13} - 13u^{11} + 7u^9 - 4u^7 + 3u^5 - u^3 + u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^{42} + 9u^{40} + \cdots - u^2 + 1 \\ -u^{42} + 10u^{40} + \cdots + 2u^4 - u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^{42} + 9u^{40} + \cdots - u^2 + 1 \\ -u^{42} + 10u^{40} + \cdots + 2u^4 - u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^{46} + 44u^{44} + \cdots + 8u - 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{48} - u^{47} + \cdots + 2u^2 - 1$
c_2	$u^{48} + 23u^{47} + \cdots + 4u + 1$
c_3	$u^{48} + 5u^{47} + \cdots + 440u + 41$
c_4, c_5, c_8 c_9	$u^{48} - u^{47} + \cdots - 2u - 1$
c_7	$u^{48} + u^{47} + \cdots - 46u - 13$
c_{10}	$u^{48} - 13u^{47} + \cdots + 248u - 23$
c_{11}	$u^{48} - 3u^{47} + \cdots + 92u - 9$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{48} - 23y^{47} + \cdots - 4y + 1$
c_2	$y^{48} + 5y^{47} + \cdots - 12y^2 + 1$
c_3	$y^{48} + 17y^{47} + \cdots - 50264y + 1681$
c_4, c_5, c_8 c_9	$y^{48} - 55y^{47} + \cdots - 4y + 1$
c_7	$y^{48} - 7y^{47} + \cdots - 6692y + 169$
c_{10}	$y^{48} - 7y^{47} + \cdots - 5752y + 529$
c_{11}	$y^{48} + 13y^{47} + \cdots - 8824y + 81$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.950359$	-7.68002	-11.9160
$u = 0.906245 + 0.560228I$	$-6.74396 + 1.23314I$	$-7.83364 + 0.66658I$
$u = 0.906245 - 0.560228I$	$-6.74396 - 1.23314I$	$-7.83364 - 0.66658I$
$u = 0.654967 + 0.639668I$	$-6.00272 - 5.94733I$	$-6.48259 + 5.46714I$
$u = 0.654967 - 0.639668I$	$-6.00272 + 5.94733I$	$-6.48259 - 5.46714I$
$u = -0.958032 + 0.533471I$	$0.422311 + 0.763813I$	$-4.66179 + 1.11475I$
$u = -0.958032 - 0.533471I$	$0.422311 - 0.763813I$	$-4.66179 - 1.11475I$
$u = -1.079460 + 0.276851I$	$-2.59116 + 0.36031I$	$-7.93807 - 0.87976I$
$u = -1.079460 - 0.276851I$	$-2.59116 - 0.36031I$	$-7.93807 + 0.87976I$
$u = -0.612298 + 0.617824I$	$1.43265 + 3.79656I$	$-3.21409 - 7.28282I$
$u = -0.612298 - 0.617824I$	$1.43265 - 3.79656I$	$-3.21409 + 7.28282I$
$u = 1.009290 + 0.540403I$	$1.00278 - 4.13351I$	$-2.80982 + 6.67284I$
$u = 1.009290 - 0.540403I$	$1.00278 + 4.13351I$	$-2.80982 - 6.67284I$
$u = 1.118000 + 0.248646I$	$-4.32121 + 2.98517I$	$-12.02372 - 4.32221I$
$u = 1.118000 - 0.248646I$	$-4.32121 - 2.98517I$	$-12.02372 + 4.32221I$
$u = 1.109880 + 0.332950I$	$-5.19194 - 3.05995I$	$-13.8975 + 5.0529I$
$u = 1.109880 - 0.332950I$	$-5.19194 + 3.05995I$	$-13.8975 - 5.0529I$
$u = 0.320233 + 0.770338I$	$-7.65892 + 8.01718I$	$-7.88582 - 4.62371I$
$u = 0.320233 - 0.770338I$	$-7.65892 - 8.01718I$	$-7.88582 + 4.62371I$
$u = -1.144450 + 0.242249I$	$-12.21720 - 5.14750I$	$-14.0897 + 2.5540I$
$u = -1.144450 - 0.242249I$	$-12.21720 + 5.14750I$	$-14.0897 - 2.5540I$
$u = -0.466321 + 0.682642I$	$-3.08169 - 1.06539I$	$-4.15324 + 0.48438I$
$u = -0.466321 - 0.682642I$	$-3.08169 + 1.06539I$	$-4.15324 - 0.48438I$
$u = 0.541320 + 0.609466I$	$2.38297 - 0.42475I$	$0.428840 - 0.154422I$
$u = 0.541320 - 0.609466I$	$2.38297 + 0.42475I$	$0.428840 + 0.154422I$
$u = -0.330482 + 0.744977I$	$0.08939 - 5.70419I$	$-5.22111 + 6.43741I$
$u = -0.330482 - 0.744977I$	$0.08939 + 5.70419I$	$-5.22111 - 6.43741I$
$u = -1.143670 + 0.342258I$	$-13.35450 + 4.59259I$	$-15.0956 - 3.6225I$
$u = -1.143670 - 0.342258I$	$-13.35450 - 4.59259I$	$-15.0956 + 3.6225I$
$u = -1.050160 + 0.567901I$	$-4.79213 + 5.90007I$	$-7.32134 - 5.68166I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.050160 - 0.567901I$	$-4.79213 - 5.90007I$	$-7.32134 + 5.68166I$
$u = 0.346872 + 0.703599I$	$1.51359 + 2.15734I$	$-1.22557 - 1.03658I$
$u = 0.346872 - 0.703599I$	$1.51359 - 2.15734I$	$-1.22557 + 1.03658I$
$u = -1.108460 + 0.518737I$	$-3.93668 + 4.44888I$	$-11.97527 - 2.81455I$
$u = -1.108460 - 0.518737I$	$-3.93668 - 4.44888I$	$-11.97527 + 2.81455I$
$u = 1.107780 + 0.553922I$	$-0.69945 - 6.98562I$	$-4.89380 + 5.04107I$
$u = 1.107780 - 0.553922I$	$-0.69945 + 6.98562I$	$-4.89380 - 5.04107I$
$u = 1.134660 + 0.506389I$	$-12.24490 - 3.33222I$	$-13.52387 + 3.39581I$
$u = 1.134660 - 0.506389I$	$-12.24490 + 3.33222I$	$-13.52387 - 3.39581I$
$u = -1.122190 + 0.562178I$	$-2.22657 + 10.65640I$	$-8.51135 - 10.01533I$
$u = -1.122190 - 0.562178I$	$-2.22657 - 10.65640I$	$-8.51135 + 10.01533I$
$u = 1.132630 + 0.566501I$	$-10.0472 - 13.0450I$	$-11.01452 + 8.25936I$
$u = 1.132630 - 0.566501I$	$-10.0472 + 13.0450I$	$-11.01452 - 8.25936I$
$u = 0.180677 + 0.698013I$	$-9.54554 - 1.19929I$	$-10.13609 + 0.35134I$
$u = 0.180677 - 0.698013I$	$-9.54554 + 1.19929I$	$-10.13609 - 0.35134I$
$u = -0.240215 + 0.625865I$	$-1.54227 + 0.02620I$	$-8.94545 - 1.26503I$
$u = -0.240215 - 0.625865I$	$-1.54227 - 0.02620I$	$-8.94545 + 1.26503I$
$u = -0.563965$	-0.872825	-11.2330

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{48} - u^{47} + \cdots + 2u^2 - 1$
c_2	$u^{48} + 23u^{47} + \cdots + 4u + 1$
c_3	$u^{48} + 5u^{47} + \cdots + 440u + 41$
c_4, c_5, c_8 c_9	$u^{48} - u^{47} + \cdots - 2u - 1$
c_7	$u^{48} + u^{47} + \cdots - 46u - 13$
c_{10}	$u^{48} - 13u^{47} + \cdots + 248u - 23$
c_{11}	$u^{48} - 3u^{47} + \cdots + 92u - 9$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{48} - 23y^{47} + \cdots - 4y + 1$
c_2	$y^{48} + 5y^{47} + \cdots - 12y^2 + 1$
c_3	$y^{48} + 17y^{47} + \cdots - 50264y + 1681$
c_4, c_5, c_8 c_9	$y^{48} - 55y^{47} + \cdots - 4y + 1$
c_7	$y^{48} - 7y^{47} + \cdots - 6692y + 169$
c_{10}	$y^{48} - 7y^{47} + \cdots - 5752y + 529$
c_{11}	$y^{48} + 13y^{47} + \cdots - 8824y + 81$