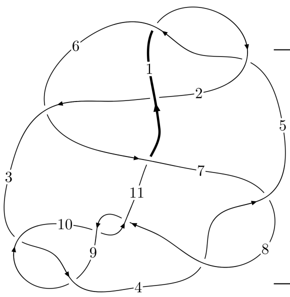
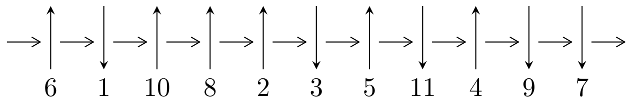
$11a_{96}$ $(K11a_{96})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{60} - u^{59} + \cdots + u^2 + 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 60 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. $I^u_1 = \langle u^{60} - u^{59} + \cdots + u^2 + 1\rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_6 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_2 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_3 = \begin{pmatrix}u^2+1\\-u^2\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-u^5-2u^3-u\\u^5+u^3+u\end{pmatrix}$$
$$a_5 = \begin{pmatrix}-u\\u^3+u\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-u^9-2u^7-3u^5-2u^3-u\\u^{11}+3u^9+4u^7+3u^5+u^3+u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}-u^{17}-4u^{15}-9u^{13}-12u^{11}-11u^9-6u^7-2u^5-u\\u^{19}+5u^{17}+12u^{15}+17u^{13}+15u^{11}+9u^9+4u^7+2u^5+u^3+u\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}u^{10}+3u^8+4u^6+3u^4+u^2+1\\-u^{10}-2u^8-3u^6-2u^4-u^2\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-u^{31}-8u^{29}+\cdots-4u^3-2u\\u^{31}+7u^{29}+\cdots+2u^3+u\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}u^{52}+13u^{50}+\cdots+3u^2+1\\-u^{52}-12u^{50}+\cdots-5u^4-2u^2\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}u^{52}+13u^{50}+\cdots+3u^2+1\\-u^{52}-12u^{50}+\cdots-5u^4-2u^2\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^{59}+4u^{58}+\cdots-4u+2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{60} - u^{59} + \cdots + u^2 + 1$
c_2	$u^{60} + 29u^{59} + \cdots + 2u + 1$
c_3, c_9	$u^{60} - u^{59} + \cdots + u^2 + 1$
c_4, c_7	$u^{60} + 5u^{59} + \cdots + 122u + 13$
c_6	$u^{60} + u^{59} + \cdots - 118u + 37$
c_8, c_{10}	$u^{60} + 21u^{59} + \cdots + 2u + 1$
c_{11}	$u^{60} - 5u^{59} + \cdots - 12u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{60} + 29y^{59} + \cdots + 2y + 1$
c_2	$y^{60} + 5y^{59} + \cdots + 14y + 1$
c_3, c_9	$y^{60} + 21y^{59} + \cdots + 2y + 1$
c_4, c_7	$y^{60} + 41y^{59} + \cdots + 4330y + 169$
c_6	$y^{60} - 19y^{59} + \cdots + 12050y + 1369$
c_8, c_{10}	$y^{60} + 37y^{59} + \cdots + 22y + 1$
c_{11}	$y^{60} + y^{59} + \cdots + 38y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.544109 + 0.871535I$	$0.80579 + 3.33102I$	$2.01338 - 1.91534I$
$u = -0.544109 - 0.871535I$	$0.80579 - 3.33102I$	$2.01338 + 1.91534I$
$u = 0.525209 + 0.910684I$	$1.69680 + 2.03222I$	$3.90722 - 3.29370I$
$u = 0.525209 - 0.910684I$	$1.69680 - 2.03222I$	$3.90722 + 3.29370I$
$u = -0.622652 + 0.677380I$	$1.38479 - 7.95567I$	$3.11940 + 8.08739I$
$u = -0.622652 - 0.677380I$	$1.38479 + 7.95567I$	$3.11940 - 8.08739I$
$u = -0.552672 + 0.728082I$	$-3.08637 - 2.17441I$	$-2.78142 + 3.98454I$
$u = -0.552672 - 0.728082I$	$-3.08637 + 2.17441I$	$-2.78142 - 3.98454I$
$u = -0.074861 + 0.899343I$	$0.55103 + 2.51832I$	$-0.80649 - 3.33072I$
$u = -0.074861 - 0.899343I$	$0.55103 - 2.51832I$	$-0.80649 + 3.33072I$
$u = 0.610444 + 0.652587I$	$2.44765 + 2.49685I$	$5.32046 - 3.18664I$
$u = 0.610444 - 0.652587I$	$2.44765 - 2.49685I$	$5.32046 + 3.18664I$
$u = -0.381105 + 1.041640I$	$-3.34743 - 1.08708I$	$-6.46120 + 0.I$
$u = -0.381105 - 1.041640I$	$-3.34743 + 1.08708I$	$-6.46120 + 0.I$
$u = 0.484539 + 1.021160I$	$-0.56534 + 3.02304I$	0
$u = 0.484539 - 1.021160I$	$-0.56534 - 3.02304I$	0
$u = -0.260652 + 1.137700I$	$-3.60470 + 1.42729I$	0
$u = -0.260652 - 1.137700I$	$-3.60470 - 1.42729I$	0
$u = -0.313837 + 1.128650I$	$-4.20665 - 1.05171I$	0
$u = -0.313837 - 1.128650I$	$-4.20665 + 1.05171I$	0
$u = 0.769876 + 0.302697I$	$-0.43983 - 9.87486I$	$1.61763 + 6.92341I$
$u = 0.769876 - 0.302697I$	$-0.43983 + 9.87486I$	$1.61763 - 6.92341I$
$u = 0.257348 + 1.151700I$	$-4.93303 - 6.89109I$	0
$u = 0.257348 - 1.151700I$	$-4.93303 + 6.89109I$	0
$u = 0.666201 + 0.472083I$	$5.00152 + 1.75323I$	$7.65668 - 2.62236I$
$u = 0.666201 - 0.472083I$	$5.00152 - 1.75323I$	$7.65668 + 2.62236I$
$u = -0.755668 + 0.307937I$	$0.80884 + 4.33115I$	$3.69848 - 2.33072I$
$u = -0.755668 - 0.307937I$	$0.80884 - 4.33115I$	$3.69848 + 2.33072I$
$u = 0.560154 + 1.046520I$	$3.31782 + 3.01457I$	0
$u = 0.560154 - 1.046520I$	$3.31782 - 3.01457I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.679575 + 0.445417I$	$4.87624 + 3.78274I$	$7.16156 - 3.71379I$
$u = -0.679575 - 0.445417I$	$4.87624 - 3.78274I$	$7.16156 + 3.71379I$
$u = 0.288034 + 1.152760I$	$-9.39383 - 0.41865I$	0
$u = 0.288034 - 1.152760I$	$-9.39383 + 0.41865I$	0
$u = -0.487828 + 1.088330I$	$-2.57613 - 5.90818I$	0
$u = -0.487828 - 1.088330I$	$-2.57613 + 5.90818I$	0
$u = 0.321894 + 1.149490I$	$-5.68245 + 6.13484I$	0
$u = 0.321894 - 1.149490I$	$-5.68245 - 6.13484I$	0
$u = -0.562904 + 1.061080I$	$3.07462 - 8.59241I$	0
$u = -0.562904 - 1.061080I$	$3.07462 + 8.59241I$	0
$u = 0.751525 + 0.268257I$	$-5.11292 - 3.55390I$	$-3.52030 + 2.87156I$
$u = 0.751525 - 0.268257I$	$-5.11292 + 3.55390I$	$-3.52030 - 2.87156I$
$u = -0.533131 + 1.124390I$	$-2.71521 - 6.69056I$	0
$u = -0.533131 - 1.124390I$	$-2.71521 + 6.69056I$	0
$u = 0.719744 + 0.218682I$	$-1.68268 + 2.83631I$	$-0.28832 - 2.76871I$
$u = 0.719744 - 0.218682I$	$-1.68268 - 2.83631I$	$-0.28832 + 2.76871I$
$u = 0.523358 + 1.138230I$	$-4.31649 + 1.84933I$	0
$u = 0.523358 - 1.138230I$	$-4.31649 - 1.84933I$	0
$u = 0.493299 + 0.552242I$	$0.862519 + 1.026220I$	$5.84285 - 4.48468I$
$u = 0.493299 - 0.552242I$	$0.862519 - 1.026220I$	$5.84285 + 4.48468I$
$u = -0.689013 + 0.265335I$	$-0.26353 + 1.99974I$	$2.67797 - 3.08609I$
$u = -0.689013 - 0.265335I$	$-0.26353 - 1.99974I$	$2.67797 + 3.08609I$
$u = -0.558377 + 1.131910I$	$-1.60310 - 9.28831I$	0
$u = -0.558377 - 1.131910I$	$-1.60310 + 9.28831I$	0
$u = 0.545235 + 1.140190I$	$-7.65214 + 8.43403I$	0
$u = 0.545235 - 1.140190I$	$-7.65214 - 8.43403I$	0
$u = 0.560770 + 1.137600I$	$-2.8910 + 14.8744I$	0
$u = 0.560770 - 1.137600I$	$-2.8910 - 14.8744I$	0
$u = -0.561245 + 0.222030I$	$-0.23326 + 1.74631I$	$0.21628 - 4.30130I$
$u = -0.561245 - 0.222030I$	$-0.23326 - 1.74631I$	$0.21628 + 4.30130I$

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{60} - u^{59} + \cdots + u^2 + 1$
c_2	$u^{60} + 29u^{59} + \cdots + 2u + 1$
c_3, c_9	$u^{60} - u^{59} + \cdots + u^2 + 1$
c_4, c_7	$u^{60} + 5u^{59} + \cdots + 122u + 13$
c_6	$u^{60} + u^{59} + \cdots - 118u + 37$
c_8, c_{10}	$u^{60} + 21u^{59} + \cdots + 2u + 1$
c_{11}	$u^{60} - 5u^{59} + \cdots - 12u + 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{60} + 29y^{59} + \cdots + 2y + 1$
c_2	$y^{60} + 5y^{59} + \cdots + 14y + 1$
c_3, c_9	$y^{60} + 21y^{59} + \cdots + 2y + 1$
c_4, c_7	$y^{60} + 41y^{59} + \cdots + 4330y + 169$
c_6	$y^{60} - 19y^{59} + \cdots + 12050y + 1369$
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