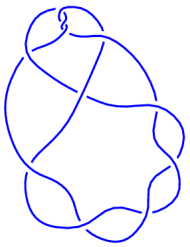
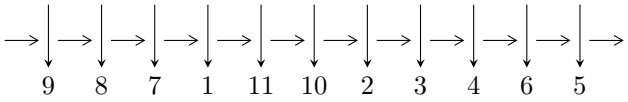
$11a_{360}$ $(K11a_{360})$



[1]

Arc Sequences



Solving Sequence

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

Representation Ideals

$$I = I_1^u$$

$$I_1^u = \langle u^{28} - u^{27} + \cdots - 2u - 1 \rangle$$

There are 1 irreducible components with 28 representations.

[1] The knot diagram image is adapter from "C. Livingston and A. H. Moore, KnotInfo: Table of Knot Invariants, http://www.indiana.edu/ knotinfo"

I. $I_1^u = \langle u^{28} - u^{27} + \cdots - 2u - 1 \rangle$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u \\ u \end{pmatrix}$$

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

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

$$a_9 = \begin{pmatrix} u^3 - 2u \\ -u^3 + u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^9 - 4u^7 + 5u^5 - 3u \\ u^{11} - 5u^9 + 8u^7 - 3u^5 - 3u^3 + u \end{pmatrix}$$

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

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

$$a_6 = \begin{pmatrix} u^{19} - 8u^{17} + 26u^{15} - 40u^{13} + 19u^{11} + 24u^9 - 30u^7 + 9u^3 \\ u^{21} - 9u^{19} + \cdots - 3u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^{26} - 11u^{24} + \cdots - u^2 + 1 \\ -u^{26} + 10u^{24} + \cdots - 4u^4 - u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^{26} - 11u^{24} + \cdots - u^2 + 1 \\ -u^{26} + 10u^{24} + \cdots - 4u^4 - u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes =unknown

(iv) Complex Volumes and Cusp Shapes

Solution to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.332313-0.074544I$	$-3.12024-2.65179I$	$-11.98850+4.74580I$
$u=-1.332313+0.074544I$	$-3.12024+2.65179I$	$-11.98850-4.74580I$
$u=-1.322849-0.350697I$	$2.34823-8.20316I$	$-7.50942+6.87147I$
$u=-1.322849+0.350697I$	$2.34823+8.20316I$	$-7.50942-6.87147I$
$u=-1.250287-0.293974I$	$-1.11578-2.20453I$	$-10.78929-0.67162I$
$u=-1.250287+0.293974I$	$-1.11578+2.20453I$	$-10.78929+0.67162I$
$u=-1.157807-0.392676I$	$13.43195+0.98282I$	$-5.32692+0.53999I$
$u=-1.157807+0.392676I$	$13.43195-0.98282I$	$-5.32692-0.53999I$
$u=-0.452566-0.475116I$	$11.29630-1.73601I$	$-5.59144+3.66821I$
$u=-0.452566+0.475116I$	$11.29630+1.73601I$	$-5.59144-3.66821I$
$u=-0.313660$	-0.512208	-19.3959
$u=-0.102396-0.838906I$	$16.6638-5.4189I$	$-2.29811+3.18589I$
$u=-0.102396+0.838906I$	$16.6638+5.4189I$	$-2.29811-3.18589I$
$u=-0.043990-0.743230I$	$2.59067-1.52781I$	$-7.09485+4.38679I$
$u=-0.043990+0.743230I$	$2.59067+1.52781I$	$-7.09485-4.38679I$
$u=0.085051-0.802149I$	$6.76083+4.04685I$	$-2.74550-4.44082I$
$u=0.085051+0.802149I$	$6.76083-4.04685I$	$-2.74550+4.44082I$
$u=0.377891-0.350002I$	$2.08521+1.33119I$	$-6.23078-5.40479I$
$u=0.377891+0.350002I$	$2.08521-1.33119I$	$-6.23078+5.40479I$
$u=1.178253-0.342424I$	$3.42392+0.10107I$	$-5.90157+0.38033I$
$u=1.178253+0.342424I$	$3.42392-0.10107I$	$-5.90157-0.38033I$
$u=1.301084-0.319153I$	$-1.61862+5.37366I$	$-12.50162-6.60941I$
$u=1.301084+0.319153I$	$-1.61862-5.37366I$	$-12.50162+6.60941I$
$u=1.32788$	-5.51225	-18.3884
$u=1.337462-0.370376I$	$12.1446+9.7685I$	$-6.61447-5.40750I$
$u=1.337462+0.370376I$	$12.1446-9.7685I$	$-6.61447+5.40750I$
$u=1.375358-0.122645I$	$5.56370+3.66754I$	$-10.51538-3.06909I$
$u=1.375358+0.122645I$	$5.56370-3.66754I$	$-10.51538+3.06909I$

II. u-Polynomials

Crossings	u-Polynomials at each crossings
c_1, c_3	$(u^{28}+3u^{27}+\cdots+29u+8)$
c_2, c_7, c_8	$(u^{28}+u^{27}+\cdots+2u-1)$
c_4, c_5, c_6 c_{10}, c_{11}	$(u^{28}+u^{27}+\cdots-4u-1)$
c_9	$(u^{28}+u^{27}+\cdots-100u-61)$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossings
c_1, c_3	$(y^{28} + 21y^{27} + \cdots - 793y + 64)$
c_2, c_7, c_8	$(y^{28} - 23y^{27} + \cdots - 10y + 1)$
c_4, c_5, c_6 c_{10}, c_{11}	$(y^{28} + 37y^{27} + \cdots - 10y + 1)$
c_9	$(y^{28} + 13y^{27} + \cdots - 3534y + 3721)$