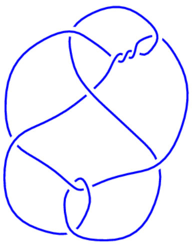
$11a_{184}$ $(K11a_{184})$



[1]

Arc Sequences

$\rightarrow \uparrow \rightarrow \downarrow \rightarrow \downarrow \rightarrow \uparrow \rightarrow \uparrow \rightarrow \uparrow \rightarrow \downarrow \rightarrow \uparrow \rightarrow \uparrow \rightarrow \uparrow \rightarrow \downarrow \rightarrow$

7 1 11 9 10 2 3 4 5 8 6

Solving Sequence

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

Representation Ideals

$$I = I_1^u$$

$$I_1^u = \langle u^{43} + u^{42} + \cdots + u^2 - 1 \rangle$$

There are 1 irreducible components with 43 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. $I_1^u = \langle u^{43} + u^{42} + \cdots + u^2 - 1 \rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^2 + 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^4 + u^2 + 1 \\ u^4 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^7 - 2u^5 - 2u^3 \\ -u^7 - u^5 + u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u^2 + 1 \\ -u^4 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^{10} - 3u^8 - 4u^6 - u^4 + u^2 + 1 \\ u^{12} + 2u^{10} + 2u^8 + u^4 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^{18} + 5u^{16} + 12u^{14} + 15u^{12} + 9u^{10} - u^8 - 4u^6 - 2u^4 + u^2 + 1 \\ u^{18} + 4u^{16} + 7u^{14} + 4u^{12} - 3u^{10} - 6u^8 - 2u^6 + u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u^{37} - 10u^{35} + \cdots - 2u^3 - u \\ -u^{37} - 9u^{35} + \cdots - u^3 + u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^{29} - 8u^{27} + \cdots - 4u^5 + u \\ u^{31} + 7u^{29} + \cdots - 2u^{13} + u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^{29} - 8u^{27} + \cdots - 4u^5 + u \\ u^{31} + 7u^{29} + \cdots - 2u^{13} + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes =unknown

(iv) Complex Volumes and Cusp Shapes

Solution to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.802703 - 0.162351I$	$6.46390 - 7.57490I$	$7.29481 + 4.51486I$
$u = -0.802703 + 0.162351I$	$6.46390 + 7.57490I$	$7.29481 - 4.51486I$
$u = -0.758021 - 0.099035I$	$-2.34232 - 1.57976I$	$0.847135 + 0.282398I$
$u = -0.758021 + 0.099035I$	$-2.34232 + 1.57976I$	$0.847135 - 0.282398I$
$u = -0.645564 - 0.300310I$	$8.84662 + 0.96374I$	$10.02944 - 0.37589I$
$u = -0.645564 + 0.300310I$	$8.84662 - 0.96374I$	$10.02944 + 0.37589I$
$u = -0.521315 - 0.837611I$	$1.91297 + 4.88049I$	$7.17506 - 8.80545I$
$u = -0.521315 + 0.837611I$	$1.91297 - 4.88049I$	$7.17506 + 8.80545I$
$u = -0.519799 - 1.187957I$	$3.43954 + 12.44985I$	$4.17518 - 7.63100I$
$u = -0.519799 + 1.187957I$	$3.43954 - 12.44985I$	$4.17518 + 7.63100I$
$u = -0.509969 - 0.679497I$	$2.36364 - 0.64965I$	$9.29098 + 1.48220I$
$u = -0.509969 + 0.679497I$	$2.36364 + 0.64965I$	$9.29098 - 1.48220I$
$u = -0.495820 - 1.104127I$	$6.52652 + 3.46599I$	$6.43711 - 3.77434I$
$u = -0.495820 + 1.104127I$	$6.52652 - 3.46599I$	$6.43711 + 3.77434I$
$u = -0.490454 - 1.184464I$	$-5.48574 + 6.18515I$	$-2.04828 - 3.59368I$
$u = -0.490454 + 1.184464I$	$-5.48574 - 6.18515I$	$-2.04828 + 3.59368I$
$u = -0.407336 - 1.191841I$	$-6.07657 + 2.44102I$	$-3.16979 - 3.57779I$
$u = -0.407336 + 1.191841I$	$-6.07657 - 2.44102I$	$-3.16979 + 3.57779I$
$u = -0.362492 - 1.206110I$	$2.33692 - 3.70518I$	$2.48681 + 1.54084I$
$u = -0.362492 + 1.206110I$	$2.33692 + 3.70518I$	$2.48681 - 1.54084I$
$u = -0.157033 - 1.039095I$	$4.88985 + 3.07247I$	$2.04876 - 3.22790I$
$u = -0.157033 + 1.039095I$	$4.88985 - 3.07247I$	$2.04876 + 3.22790I$
$u = 0.070971 - 0.949282I$	$-1.88710 - 1.49301I$	$-2.49179 + 5.12316I$
$u = 0.070971 + 0.949282I$	$-1.88710 + 1.49301I$	$-2.49179 - 5.12316I$
$u = 0.382526 - 1.197979I$	$-5.08887 + 1.28085I$	$-0.49379 - 2.90376I$
$u = 0.382526 + 1.197979I$	$-5.08887 - 1.28085I$	$-0.49379 + 2.90376I$
$u = 0.443218 - 0.795583I$	$0.18390 - 1.87415I$	$2.36398 + 3.86442I$
$u = 0.443218 + 0.795583I$	$0.18390 + 1.87415I$	$2.36398 - 3.86442I$
$u = 0.448865 - 1.200604I$	$-0.96199 - 4.39851I$	$1.16379 + 3.54146I$
$u = 0.448865 + 1.200604I$	$-0.96199 + 4.39851I$	$1.16379 - 3.54146I$

	Solution to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.463782 - 1.145443I$	$-1.69075 - 3.98657I$	$4.72929 + 3.11894I$
$u=$	$0.463782 + 1.145443I$	$-1.69075 + 3.98657I$	$4.72929 - 3.11894I$
$u=$	$0.507296 - 1.186730I$	$-4.20932 - 9.96665I$	$1.30189 + 9.16746I$
$u=$	$0.507296 + 1.186730I$	$-4.20932 + 9.96665I$	$1.30189 - 9.16746I$
$u=$	$0.536405 - 0.171930I$	$1.103734 - 0.098765I$	$9.44099 + 0.91027I$
$u=$	$0.536405 + 0.171930I$	$1.103734 + 0.098765I$	$9.44099 - 0.91027I$
$u=$	$0.564675 - 0.846085I$	$9.73939 - 6.81501I$	$9.15243 + 6.58080I$
$u=$	$0.564675 + 0.846085I$	$9.73939 + 6.81501I$	$9.15243 - 6.58080I$
$u=$	$0.578652 - 0.674431I$	$10.22702 + 2.27386I$	$10.59990 + 0.05953I$
$u=$	$0.578652 + 0.674431I$	$10.22702 - 2.27386I$	$10.59990 - 0.05953I$
$u=$	0.781151	2.55363	4.52386
$u=$	$0.783539 - 0.138077I$	$-1.13687 + 5.20298I$	$4.40416 - 6.22689I$
$u=$	$0.783539 + 0.138077I$	$-1.13687 - 5.20298I$	$4.40416 + 6.22689I$

II. u-Polynomials

Crossings	u-Polynomials at each crossings
c_1, c_6	$(u^{43} + u^{42} + \cdots + u^2 - 1)$
c_2	$(u^{43} + 23u^{42} + \cdots + 2u - 1)$
c_3	$(u^{43} + 5u^{42} + \cdots - 2u - 5)$
c_4, c_5, c_8 c_9	$(u^{43} + u^{42} + \cdots + u^2 - 1)$
c_7, c_{11}	$(u^{43} + u^{42} + \cdots - 5u + 2)$
c_{10}	$(u^{43} + 11u^{42} + \cdots + 12u + 1)$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossings
c_1, c_6	$(y^{43} + 23y^{42} + \cdots + 2y - 1)$
c_2	$(y^{43} - 5y^{42} + \cdots + 14y - 1)$
c_3	$(y^{43} + 7y^{42} + \cdots - 926y - 25)$
c_4, c_5, c_8 c_9	$(y^{43} - 49y^{42} + \cdots + 2y - 1)$
c_7, c_{11}	$(y^{43} - 33y^{42} + \cdots + 125y - 4)$
c_{10}	$(y^{43} - y^{42} + \cdots - 18y - 1)$