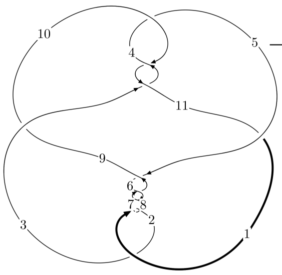
$11a_{243}$ ($K11a_{243}$)



A knot diagram[1]

Linearized knot diagam

7 1 11 10 9 8 2 6 3 4 5

Solving Sequence

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

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

$$I_1^u = \langle u^{34} + u^{33} + \cdots - u - 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 34 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. $I_1^u = \langle u^{34} + u^{33} + \cdots - u - 1 \rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^3 \\ u^5 - u^3 + u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^4 - u^2 + 1 \\ u^4 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^{12} + u^{10} - 3u^8 + 2u^6 - u^2 + 1 \\ u^{14} - 2u^{12} + 5u^{10} - 6u^8 + 6u^6 - 2u^4 + u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u^6 + u^4 - 2u^2 + 1 \\ -u^6 - u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^{32} + 3u^{30} + \cdots - 4u^2 + 1 \\ -u^{33} - u^{32} + \cdots + u + 1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^{15} + 2u^{13} - 6u^{11} + 8u^9 - 10u^7 + 8u^5 - 4u^3 + 2u \\ -u^{15} + u^{13} - 4u^{11} + 3u^9 - 4u^7 + 2u^5 - 2u^3 + u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^{15} + 2u^{13} - 6u^{11} + 8u^9 - 10u^7 + 8u^5 - 4u^3 + 2u \\ -u^{15} + u^{13} - 4u^{11} + 3u^9 - 4u^7 + 2u^5 - 2u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= 4u^{33} - 16u^{31} - 4u^{30} + 68u^{29} + 12u^{28} - 180u^{27} - 52u^{26} + 420u^{25} + 112u^{24} - 788u^{23} - 244u^{22} + 1248u^{21} + 376u^{20} - 1696u^{19} - 508u^{18} + 1916u^{17} + 528u^{16} - 1876u^{15} - 436u^{14} + 1504u^{13} + 248u^{12} - 1040u^{11} - 76u^{10} + 584u^9 - 16u^8 - 276u^7 + 32u^6 + 108u^5 - 24u^4 - 28u^3 + 12u^2 + 12u - 14$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{34} + u^{33} + \cdots - u - 1$
c_2, c_5, c_6 c_8	$u^{34} + 7u^{33} + \cdots + 7u + 1$
c_3, c_4, c_{10}	$u^{34} - u^{33} + \cdots - 3u - 1$
c_9, c_{11}	$u^{34} + u^{33} + \cdots - 11u - 2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{34} - 7y^{33} + \cdots - 7y + 1$
c_2, c_5, c_6 c_8	$y^{34} + 41y^{33} + \cdots + y + 1$
c_3, c_4, c_{10}	$y^{34} + 29y^{33} + \cdots - 7y + 1$
c_9, c_{11}	$y^{34} - 15y^{33} + \cdots - 25y + 4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.747104 + 0.637416I$	$6.64470 + 2.36489I$	$-2.86883 - 3.72968I$
$u = -0.747104 - 0.637416I$	$6.64470 - 2.36489I$	$-2.86883 + 3.72968I$
$u = -0.899925 + 0.475897I$	$-2.14151 + 4.62376I$	$-13.8382 - 7.0838I$
$u = -0.899925 - 0.475897I$	$-2.14151 - 4.62376I$	$-13.8382 + 7.0838I$
$u = 0.872014 + 0.400496I$	$0.949146 - 0.978585I$	$-10.88963 + 3.28439I$
$u = 0.872014 - 0.400496I$	$0.949146 + 0.978585I$	$-10.88963 - 3.28439I$
$u = 0.922322 + 0.514518I$	$2.40379 - 8.43362I$	$-8.56504 + 8.66068I$
$u = 0.922322 - 0.514518I$	$2.40379 + 8.43362I$	$-8.56504 - 8.66068I$
$u = -0.911159 + 0.064557I$	$-0.80027 + 3.72913I$	$-14.4528 - 4.1895I$
$u = -0.911159 - 0.064557I$	$-0.80027 - 3.72913I$	$-14.4528 + 4.1895I$
$u = 0.901185$	-4.70685	-19.4900
$u = 0.703635 + 0.475487I$	$1.07563 - 1.83024I$	$-6.47079 + 5.97936I$
$u = 0.703635 - 0.475487I$	$1.07563 + 1.83024I$	$-6.47079 - 5.97936I$
$u = 0.484387 + 0.660768I$	$3.79773 + 4.05189I$	$-4.65777 - 2.65947I$
$u = 0.484387 - 0.660768I$	$3.79773 - 4.05189I$	$-4.65777 + 2.65947I$
$u = -0.905647 + 0.876658I$	$8.74108 + 3.00465I$	$-6.23462 - 3.51022I$
$u = -0.905647 - 0.876658I$	$8.74108 - 3.00465I$	$-6.23462 + 3.51022I$
$u = 0.887193 + 0.895874I$	$6.61353 + 1.01180I$	$-9.12967 - 1.18783I$
$u = 0.887193 - 0.895874I$	$6.61353 - 1.01180I$	$-9.12967 + 1.18783I$
$u = -0.885998 + 0.911204I$	$11.67770 - 4.89843I$	$-4.67803 + 2.35929I$
$u = -0.885998 - 0.911204I$	$11.67770 + 4.89843I$	$-4.67803 - 2.35929I$
$u = -0.933946 + 0.863515I$	$8.64990 + 3.44136I$	$-6.50419 - 1.50666I$
$u = -0.933946 - 0.863515I$	$8.64990 - 3.44136I$	$-6.50419 + 1.50666I$
$u = -0.440591 + 0.564184I$	$-0.754026 - 0.647677I$	$-10.09307 + 0.88782I$
$u = -0.440591 - 0.564184I$	$-0.754026 + 0.647677I$	$-10.09307 - 0.88782I$
$u = 0.957008 + 0.864633I$	$6.39073 - 7.51888I$	$-9.58479 + 5.88933I$
$u = 0.957008 - 0.864633I$	$6.39073 + 7.51888I$	$-9.58479 - 5.88933I$
$u = 0.933149 + 0.900837I$	$15.8663 - 3.3207I$	$-2.12280 + 2.39131I$
$u = 0.933149 - 0.900837I$	$15.8663 + 3.3207I$	$-2.12280 - 2.39131I$
$u = -0.967526 + 0.871929I$	$11.4151 + 11.4767I$	$-5.20067 - 7.04203I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.967526 - 0.871929I$	$11.4151 - 11.4767I$	$-5.20067 + 7.04203I$
$u = 0.226712 + 0.537212I$	$2.73574 - 2.31248I$	$-4.68504 + 3.18940I$
$u = 0.226712 - 0.537212I$	$2.73574 + 2.31248I$	$-4.68504 - 3.18940I$
$u = -0.490234$	-0.620230	-16.5580

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{34} + u^{33} + \cdots - u - 1$
c_2, c_5, c_6 c_8	$u^{34} + 7u^{33} + \cdots + 7u + 1$
c_3, c_4, c_{10}	$u^{34} - u^{33} + \cdots - 3u - 1$
c_9, c_{11}	$u^{34} + u^{33} + \cdots - 11u - 2$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{34} - 7y^{33} + \cdots - 7y + 1$
c_2, c_5, c_6 c_8	$y^{34} + 41y^{33} + \cdots + y + 1$
c_3, c_4, c_{10}	$y^{34} + 29y^{33} + \cdots - 7y + 1$
c_9, c_{11}	$y^{34} - 15y^{33} + \cdots - 25y + 4$