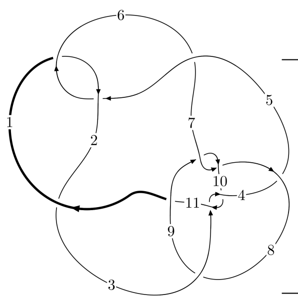
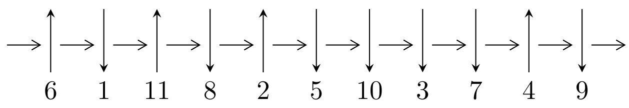
$11a_{149}$ ($K11a_{149}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 6.59200 \times 10^{33} u^{62} + 1.26617 \times 10^{34} u^{61} + \cdots + 9.14845 \times 10^{33} b - 6.13231 \times 10^{33},$$
$$- 5.18869 \times 10^{30} u^{62} - 4.60084 \times 10^{31} u^{61} + \cdots + 1.51632 \times 10^{32} a + 4.89769 \times 10^{32},\ u^{63} + 3u^{62} + \cdots + 2u -$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 63 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.

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$\boldsymbol{I_1^u = \langle 6.59\times10^{33}u^{62}+1.27\times10^{34}u^{61}+\cdots+9.15\times10^{33}b-6.13\times10^{33},\ -5.19\times10^{30}u^{62}-4.60\times10^{31}u^{61}+\cdots+1.52\times10^{32}a+4.90\times10^{32},\ u^{63}+3u^{62}+\cdots+2u-1\rangle}$

(i) Arc colorings

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

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

$$a_1 = \begin{pmatrix}1\\u^2\end{pmatrix}$$

$$a_3 = \begin{pmatrix}u^2+1\\u^4\end{pmatrix}$$

$$a_5 = \begin{pmatrix}-u\\u\end{pmatrix}$$

$$a_7 = \begin{pmatrix}-u^3\\u^3+u\end{pmatrix}$$

$$a_9 = \begin{pmatrix}0.0342190u^{62}+0.303422u^{61}+\cdots-0.970526u-3.22999\\-0.720560u^{62}-1.38403u^{61}+\cdots+0.258985u+0.670312\end{pmatrix}$$

$$a_{10} = \begin{pmatrix}0.163991u^{62}+0.735688u^{61}+\cdots-0.518791u-3.41101\\-0.940033u^{62}-1.90438u^{61}+\cdots-0.942790u+0.713453\end{pmatrix}$$

$$a_8 = \begin{pmatrix}0.167447u^{62}+0.652868u^{61}+\cdots+1.09284u-3.15598\\-0.702143u^{62}-1.31297u^{61}+\cdots+0.508662u+0.602596\end{pmatrix}$$

$$a_4 = \begin{pmatrix}-1.53220u^{62}-5.33133u^{61}+\cdots-6.95145u+3.31985\\0.408926u^{62}+1.90611u^{61}+\cdots-1.94941u+0.452963\end{pmatrix}$$

$$a_{11} = \begin{pmatrix}-0.489880u^{62}-1.42153u^{61}+\cdots+3.35861u+3.51142\\-0.552392u^{62}-2.69530u^{61}+\cdots+2.86212u-1.33768\end{pmatrix}$$

$$a_{11} = \begin{pmatrix}-0.489880u^{62}-1.42153u^{61}+\cdots+3.35861u+3.51142\\-0.552392u^{62}-2.69530u^{61}+\cdots+2.86212u-1.33768\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -2.55683u^{62}-9.47657u^{61}+\cdots-10.7932u-4.31798$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{63} - 3u^{62} + \cdots + 2u + 1$
c_2, c_6	$u^{63} + 19u^{62} + \cdots + 16u - 1$
c_3, c_{10}	$u^{63} + 3u^{62} + \cdots + 4u + 1$
c_4	$u^{63} + 11u^{62} + \cdots + 26u + 529$
c_7, c_9	$u^{63} - u^{62} + \cdots - 18u + 1$
c_8	$u^{63} + u^{62} + \cdots - 10u + 1$
c_{11}	$u^{63} + 23u^{62} + \cdots - 22u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{63} + 19y^{62} + \cdots + 16y - 1$
c_2, c_6	$y^{63} + 51y^{62} + \cdots + 360y - 1$
c_3, c_{10}	$y^{63} + 47y^{62} + \cdots + 16y - 1$
c_4	$y^{63} + 127y^{62} + \cdots - 1368376y - 279841$
c_7, c_9	$y^{63} - 41y^{62} + \cdots - 184y - 1$
c_8	$y^{63} + 3y^{62} + \cdots - 48y - 1$
c_{11}	$y^{63} - 177y^{62} + \cdots - 84y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.202849 + 0.946044I$ $a = 1.94722 + 0.19778I$ $b = -0.928613 - 0.106351I$	$-3.81545 + 5.01176I$	$-9.09327 - 7.69438I$
$u = 0.202849 - 0.946044I$ $a = 1.94722 - 0.19778I$ $b = -0.928613 + 0.106351I$	$-3.81545 - 5.01176I$	$-9.09327 + 7.69438I$
$u = 0.695239 + 0.763843I$ $a = 0.75961 + 1.41295I$ $b = -1.63934 + 0.73836I$	$-2.73449 - 1.42844I$	$-6.93697 + 2.22951I$
$u = 0.695239 - 0.763843I$ $a = 0.75961 - 1.41295I$ $b = -1.63934 - 0.73836I$	$-2.73449 + 1.42844I$	$-6.93697 - 2.22951I$
$u = -0.058839 + 0.948485I$ $a = -1.17043 + 1.85637I$ $b = 0.45196 - 1.56324I$	$-7.69919 - 2.07381I$	$-15.2166 + 3.4603I$
$u = -0.058839 - 0.948485I$ $a = -1.17043 - 1.85637I$ $b = 0.45196 + 1.56324I$	$-7.69919 + 2.07381I$	$-15.2166 - 3.4603I$
$u = -0.763248 + 0.536252I$ $a = -0.200295 - 0.850847I$ $b = -0.612392 + 0.572188I$	$1.08095 - 1.39801I$	$4.18188 + 0.71132I$
$u = -0.763248 - 0.536252I$ $a = -0.200295 + 0.850847I$ $b = -0.612392 - 0.572188I$	$1.08095 + 1.39801I$	$4.18188 - 0.71132I$
$u = -0.726705 + 0.811867I$ $a = -1.18396 + 1.72005I$ $b = 2.18880 + 0.14253I$	$1.35473 - 0.62400I$	0
$u = -0.726705 - 0.811867I$ $a = -1.18396 - 1.72005I$ $b = 2.18880 - 0.14253I$	$1.35473 + 0.62400I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.643524+0.884288I$ $a=-0.670137+0.681552I$ $b=-0.214774+0.538469I$	$-4.63310-2.49365I$	0
$u=-0.643524-0.884288I$ $a=-0.670137-0.681552I$ $b=-0.214774-0.538469I$	$-4.63310+2.49365I$	0
$u=-0.810251+0.764677I$ $a=-0.614704+1.099300I$ $b=\ \ 2.27585-0.14042I$	$2.66441+3.76429I$	0
$u=-0.810251-0.764677I$ $a=-0.614704-1.099300I$ $b=\ \ 2.27585+0.14042I$	$2.66441-3.76429I$	0
$u=-0.247037+0.849494I$ $a=-1.142120+0.110784I$ $b=\ \ 0.398886+0.218053I$	$-0.62170-1.75556I$	$-1.86458+4.77709I$
$u=-0.247037-0.849494I$ $a=-1.142120-0.110784I$ $b=\ \ 0.398886-0.218053I$	$-0.62170+1.75556I$	$-1.86458-4.77709I$
$u=\ \ 0.879352+0.689382I$ $a=-0.766895-1.133880I$ $b=\ \ 1.80952-0.12559I$	$3.67279-4.73223I$	0
$u=\ \ 0.879352-0.689382I$ $a=-0.766895+1.133880I$ $b=\ \ 1.80952+0.12559I$	$3.67279+4.73223I$	0
$u=\ \ 0.702468+0.874127I$ $a=-1.37569+1.38479I$ $b=\ \ 0.83063-1.81611I$	$-0.03120+2.69612I$	0
$u=\ \ 0.702468-0.874127I$ $a=-1.37569-1.38479I$ $b=\ \ 0.83063+1.81611I$	$-0.03120-2.69612I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.057802 + 0.865842I$ $a = 1.039560 + 0.717759I$ $b = 0.212381 - 1.286120I$	$-3.45347 + 0.91963I$	$-7.53722 + 0.57993I$
$u = 0.057802 - 0.865842I$ $a = 1.039560 - 0.717759I$ $b = 0.212381 + 1.286120I$	$-3.45347 - 0.91963I$	$-7.53722 - 0.57993I$
$u = -0.888598 + 0.712739I$ $a = 1.23888 - 1.07985I$ $b = -2.21959 - 0.66956I$	$-1.25936 + 10.13510I$	0
$u = -0.888598 - 0.712739I$ $a = 1.23888 + 1.07985I$ $b = -2.21959 + 0.66956I$	$-1.25936 - 10.13510I$	0
$u = 0.737082 + 0.871113I$ $a = -4.8258 + 13.5054I$ $b = -5.4391 - 15.0888I$	$-0.27910 + 2.80205I$	$0. - 114.9176I$
$u = 0.737082 - 0.871113I$ $a = -4.8258 - 13.5054I$ $b = -5.4391 + 15.0888I$	$-0.27910 - 2.80205I$	$0. + 114.9176I$
$u = 0.249599 + 1.117340I$ $a = -0.933405 - 0.391979I$ $b = 0.083836 + 0.726791I$	$-8.93201 + 10.19930I$	0
$u = 0.249599 - 1.117340I$ $a = -0.933405 + 0.391979I$ $b = 0.083836 - 0.726791I$	$-8.93201 - 10.19930I$	0
$u = 0.825588 + 0.794026I$ $a = 0.471370 + 0.782650I$ $b = -1.65611 - 0.24031I$	$6.05392 + 0.28945I$	0
$u = 0.825588 - 0.794026I$ $a = 0.471370 - 0.782650I$ $b = -1.65611 + 0.24031I$	$6.05392 - 0.28945I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.171535 + 0.833363I$ $a = 0.472085 + 1.258500I$ $b = 0.192482 + 0.304858I$	$-3.56857 - 0.47654I$	$-9.76423 - 1.75847I$
$u = 0.171535 - 0.833363I$ $a = 0.472085 - 1.258500I$ $b = 0.192482 - 0.304858I$	$-3.56857 + 0.47654I$	$-9.76423 + 1.75847I$
$u = -0.716350 + 0.922760I$ $a = 0.58105 - 1.92526I$ $b = -2.53241 + 1.12922I$	$1.01466 - 4.89030I$	0
$u = -0.716350 - 0.922760I$ $a = 0.58105 + 1.92526I$ $b = -2.53241 - 1.12922I$	$1.01466 + 4.89030I$	0
$u = 0.693599 + 0.946330I$ $a = 0.34808 - 1.75912I$ $b = 1.94341 + 1.34022I$	$-3.28750 + 6.79142I$	0
$u = 0.693599 - 0.946330I$ $a = 0.34808 + 1.75912I$ $b = 1.94341 - 1.34022I$	$-3.28750 - 6.79142I$	0
$u = -0.765357 + 0.893742I$ $a = -0.888237 - 0.881040I$ $b = 0.160327 + 1.374950I$	$1.42211 - 2.89988I$	0
$u = -0.765357 - 0.893742I$ $a = -0.888237 + 0.881040I$ $b = 0.160327 - 1.374950I$	$1.42211 + 2.89988I$	0
$u = 0.818503 + 0.071595I$ $a = 0.947693 - 0.595880I$ $b = -0.190373 + 0.433337I$	$-4.90960 + 6.71055I$	$-4.57662 - 5.93806I$
$u = 0.818503 - 0.071595I$ $a = 0.947693 + 0.595880I$ $b = -0.190373 - 0.433337I$	$-4.90960 - 6.71055I$	$-4.57662 + 5.93806I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.330834 + 1.132940I$ $a = 0.122863 - 0.871157I$ $b = -0.389791 + 0.792565I$	$-8.44469 - 2.66782I$	0
$u = 0.330834 - 1.132940I$ $a = 0.122863 + 0.871157I$ $b = -0.389791 - 0.792565I$	$-8.44469 + 2.66782I$	0
$u = -0.213920 + 1.163890I$ $a = 0.446939 - 0.170107I$ $b = 0.032442 + 0.590549I$	$-3.79459 - 4.37631I$	0
$u = -0.213920 - 1.163890I$ $a = 0.446939 + 0.170107I$ $b = 0.032442 - 0.590549I$	$-3.79459 + 4.37631I$	0
$u = -0.750069 + 0.975450I$ $a = 0.85338 - 2.02212I$ $b = -2.24959 + 0.46334I$	$2.01737 - 9.62566I$	0
$u = -0.750069 - 0.975450I$ $a = 0.85338 + 2.02212I$ $b = -2.24959 - 0.46334I$	$2.01737 + 9.62566I$	0
$u = 0.769036 + 0.963922I$ $a = -0.64711 - 1.44598I$ $b = 1.56684 + 0.33213I$	$5.52656 + 5.67817I$	0
$u = 0.769036 - 0.963922I$ $a = -0.64711 + 1.44598I$ $b = 1.56684 - 0.33213I$	$5.52656 - 5.67817I$	0
$u = -0.693016 + 0.315312I$ $a = -0.289428 - 0.730127I$ $b = -0.310255 + 0.482151I$	$1.05806 - 1.32640I$	$4.87847 + 4.20428I$
$u = -0.693016 - 0.315312I$ $a = -0.289428 + 0.730127I$ $b = -0.310255 - 0.482151I$	$1.05806 + 1.32640I$	$4.87847 - 4.20428I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.754175 + 1.039690I$ $a = 0.72880 + 1.66445I$ $b = -2.16012 - 0.87201I$	$2.59510 + 10.79480I$	0
$u = 0.754175 - 1.039690I$ $a = 0.72880 - 1.66445I$ $b = -2.16012 + 0.87201I$	$2.59510 - 10.79480I$	0
$u = -0.765933 + 1.033730I$ $a = -0.51162 + 2.20505I$ $b = 2.40984 - 1.47160I$	$-2.2561 - 16.2663I$	0
$u = -0.765933 - 1.033730I$ $a = -0.51162 - 2.20505I$ $b = 2.40984 + 1.47160I$	$-2.2561 + 16.2663I$	0
$u = -0.933450 + 0.887239I$ $a = 0.182597 + 0.083461I$ $b = 0.164371 - 0.473416I$	$0.88299 - 3.37440I$	0
$u = -0.933450 - 0.887239I$ $a = 0.182597 - 0.083461I$ $b = 0.164371 + 0.473416I$	$0.88299 + 3.37440I$	0
$u = -0.730193 + 1.099430I$ $a = -0.467025 + 0.660302I$ $b = 1.157580 - 0.273573I$	$-0.60454 - 4.40493I$	0
$u = -0.730193 - 1.099430I$ $a = -0.467025 - 0.660302I$ $b = 1.157580 + 0.273573I$	$-0.60454 + 4.40493I$	0
$u = 0.516941 + 0.032452I$ $a = -0.286237 - 1.236950I$ $b = 0.641012 + 0.482457I$	$-1.03804 - 2.55802I$	$-0.30006 + 3.39194I$
$u = 0.516941 - 0.032452I$ $a = -0.286237 + 1.236950I$ $b = 0.641012 - 0.482457I$	$-1.03804 + 2.55802I$	$-0.30006 - 3.39194I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.309755 + 0.275620I$ $a = \quad 1.19826 + 2.47111I$ $b = -0.692520 + 0.579657I$	$-4.36178 - 1.13101I$	$-3.69450 + 1.07714I$
$u = -0.309755 - 0.275620I$ $a = \quad 1.19826 - 2.47111I$ $b = -0.692520 - 0.579657I$	$-4.36178 + 1.13101I$	$-3.69450 - 1.07714I$
$u = \quad 0.223288$ $a = -3.73067$ $b = \quad 0.429527$	-1.26040	-8.85590

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{63} - 3u^{62} + \cdots + 2u + 1$
c_2, c_6	$u^{63} + 19u^{62} + \cdots + 16u - 1$
c_3, c_{10}	$u^{63} + 3u^{62} + \cdots + 4u + 1$
c_4	$u^{63} + 11u^{62} + \cdots + 26u + 529$
c_7, c_9	$u^{63} - u^{62} + \cdots - 18u + 1$
c_8	$u^{63} + u^{62} + \cdots - 10u + 1$
c_{11}	$u^{63} + 23u^{62} + \cdots - 22u + 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{63} + 19y^{62} + \cdots + 16y - 1$
c_2, c_6	$y^{63} + 51y^{62} + \cdots + 360y - 1$
c_3, c_{10}	$y^{63} + 47y^{62} + \cdots + 16y - 1$
c_4	$y^{63} + 127y^{62} + \cdots - 1368376y - 279841$
c_7, c_9	$y^{63} - 41y^{62} + \cdots - 184y - 1$
c_8	$y^{63} + 3y^{62} + \cdots - 48y - 1$
c_{11}	$y^{63} - 177y^{62} + \cdots - 84y - 1$