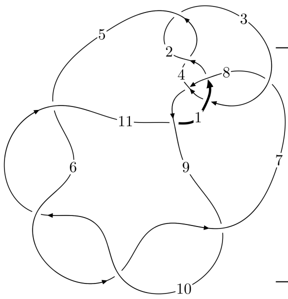
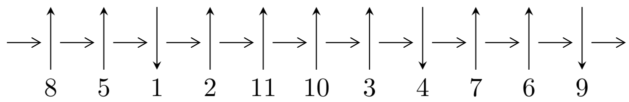
$11a_{262}$ ($K11a_{262}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -1.26359 \times 10^{15} u^{52} - 1.96443 \times 10^{17} u^{51} + \cdots + 2.39123 \times 10^{17} b - 1.89562 \times 10^{13}, \\ & -289619771524 u^{52} + 18666048239996 u^{51} + \cdots + 239122974590735869 a - 438392119644066415, \\ & u^{53} + u^{52} + \cdots + 3u - 1 \rangle \end{aligned}$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 53 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.
$\boldsymbol{I_1^u = \langle -1.26\times 10^{15}u^{52} - 1.96\times 10^{17}u^{51} + \cdots + 2.39\times 10^{17}b - 1.90\times 10^{13},\ -2.90\times 10^{11}u^{52} + 1.87\times 10^{13}u^{51} + \cdots + 2.39\times 10^{17}a - 4.38\times 10^{17},\ u^{53} + u^{52} + \cdots + 3u - 1\rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1.21118\times 10^{-6}u^{52} - 0.0000780605u^{51} + \cdots + 3.83847u + 1.83333 \\ 0.00528425u^{52} + 0.821515u^{51} + \cdots + 3.16643u + 0.0000792739 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0.00254871u^{52} - 0.00326419u^{51} + \cdots - 4.41855u - 0.716687 \\ 0.00254880u^{52} - 0.00324345u^{51} + \cdots - 3.31660u - 0.0000206367 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^2 + 1 \\ u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -2.84090\times 10^{-6}u^{52} + 0.000195650u^{51} + \cdots + 3.13319u + 1.01667 \\ -0.0113905u^{52} + 0.805395u^{51} + \cdots + 3.18393u - 0.000198494 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 0.0000154157u^{52} - 0.00105631u^{51} + \cdots + 4.17250u + 1.75000 \\ 0.0622368u^{52} + 0.794538u^{51} + \cdots + 3.24677u + 0.00107174 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^5 - 2u^3 + u \\ u^7 + 3u^5 + 2u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^5 - 2u^3 + u \\ u^7 + 3u^5 + 2u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{769977140804634968}{239122974590735869}u^{52} - \frac{578599056246783756}{239122974590735869}u^{51} + \cdots - \frac{1896881691414989920}{239122974590735869}u + \frac{1286401897025890394}{239122974590735869}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{53} - 3u^{52} + \cdots - u + 1$
c_2, c_4	$u^{53} + u^{52} + \cdots + 9u - 1$
c_3	$u^{53} - 9u^{52} + \cdots + u - 1$
c_5, c_6, c_9 c_{10}	$u^{53} + u^{52} + \cdots + 3u - 1$
c_7	$u^{53} + u^{52} + \cdots - 721u - 271$
c_8	$u^{53} - u^{52} + \cdots + 37u - 89$
c_{11}	$u^{53} - 11u^{52} + \cdots + 1317u - 163$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{53} - 9y^{52} + \cdots + 3y - 1$
c_2, c_4	$y^{53} - 37y^{52} + \cdots - 9y - 1$
c_3	$y^{53} + 3y^{52} + \cdots - 9y - 1$
c_5, c_6, c_9 c_{10}	$y^{53} + 59y^{52} + \cdots + 3y - 1$
c_7	$y^{53} + 35y^{52} + \cdots + 1272679y - 73441$
c_8	$y^{53} + 59y^{52} + \cdots - 255841y - 7921$
c_{11}	$y^{53} + 19y^{52} + \cdots + 1976055y - 26569$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.650984 + 0.674299I$ $a = 0.257151 - 0.877552I$ $b = -0.137847 + 0.272025I$	$3.29153 + 3.40743I$	$13.0359 - 10.0924I$
$u = 0.650984 - 0.674299I$ $a = 0.257151 + 0.877552I$ $b = -0.137847 - 0.272025I$	$3.29153 - 3.40743I$	$13.0359 + 10.0924I$
$u = 0.224761 + 1.071330I$ $a = -0.775347 - 0.428894I$ $b = -0.275336 + 0.269078I$	$0.20296 + 4.75561I$	0
$u = 0.224761 - 1.071330I$ $a = -0.775347 + 0.428894I$ $b = -0.275336 - 0.269078I$	$0.20296 - 4.75561I$	0
$u = -0.592128 + 0.654438I$ $a = 0.84258 + 1.72659I$ $b = 0.076882 - 0.228703I$	$4.38092 - 11.94560I$	$6.49757 + 9.10409I$
$u = -0.592128 - 0.654438I$ $a = 0.84258 - 1.72659I$ $b = 0.076882 + 0.228703I$	$4.38092 + 11.94560I$	$6.49757 - 9.10409I$
$u = -0.509097 + 0.611824I$ $a = -1.38091 - 1.15029I$ $b = -0.296709 - 0.366738I$	$-0.15260 - 6.19554I$	$4.01481 + 9.36178I$
$u = -0.509097 - 0.611824I$ $a = -1.38091 + 1.15029I$ $b = -0.296709 + 0.366738I$	$-0.15260 + 6.19554I$	$4.01481 - 9.36178I$
$u = 0.746383 + 0.258308I$ $a = 0.0258294 - 0.0088866I$ $b = -0.721551 + 0.170222I$	$4.51390 + 1.24711I$	$18.3925 - 3.9738I$
$u = 0.746383 - 0.258308I$ $a = 0.0258294 + 0.0088866I$ $b = -0.721551 - 0.170222I$	$4.51390 - 1.24711I$	$18.3925 + 3.9738I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.089202+0.749619I$ $a=\ \ 0.275857+1.205170I$ $b=-0.410304-0.149385I$	$-2.80915+1.17690I$	$-3.10474-1.38405I$
$u=-0.089202-0.749619I$ $a=\ \ 0.275857-1.205170I$ $b=-0.410304+0.149385I$	$-2.80915-1.17690I$	$-3.10474+1.38405I$
$u=-0.668726+0.300592I$ $a=-0.191315-0.567088I$ $b=-1.006360-0.726730I$	$5.42859+7.69645I$	$8.91950-3.87764I$
$u=-0.668726-0.300592I$ $a=-0.191315+0.567088I$ $b=-1.006360+0.726730I$	$5.42859-7.69645I$	$8.91950+3.87764I$
$u=-0.511815+0.524420I$ $a=-0.75753-2.01504I$ $b=\ \ 0.349101+0.003826I$	$4.20057-3.68117I$	$11.59505+7.70576I$
$u=-0.511815-0.524420I$ $a=-0.75753+2.01504I$ $b=\ \ 0.349101-0.003826I$	$4.20057+3.68117I$	$11.59505-7.70576I$
$u=\ \ 0.429766+0.592859I$ $a=\ \ 0.124286+0.894053I$ $b=-0.288153+0.342472I$	$0.14967+2.03204I$	$3.41312-3.39800I$
$u=\ \ 0.429766-0.592859I$ $a=\ \ 0.124286-0.894053I$ $b=-0.288153-0.342472I$	$0.14967-2.03204I$	$3.41312+3.39800I$
$u=-0.132734+1.284260I$ $a=-1.032290-0.063941I$ $b=-0.517989+0.093329I$	$0.47934+4.72102I$	0
$u=-0.132734-1.284260I$ $a=-1.032290+0.063941I$ $b=-0.517989-0.093329I$	$0.47934-4.72102I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.508709 + 0.437255I$ $a = 0.568345 - 0.326462I$ $b = 1.029690 + 0.612477I$	$4.45759 + 0.11922I$	$13.02951 + 0.69964I$
$u = -0.508709 - 0.437255I$ $a = 0.568345 + 0.326462I$ $b = 1.029690 - 0.612477I$	$4.45759 - 0.11922I$	$13.02951 - 0.69964I$
$u = 0.440292 + 0.499184I$ $a = -3.68961 + 0.83011I$ $b = 0.12450 - 1.78122I$	$2.13564 + 1.55948I$	$-19.8548 + 10.4353I$
$u = 0.440292 - 0.499184I$ $a = -3.68961 - 0.83011I$ $b = 0.12450 + 1.78122I$	$2.13564 - 1.55948I$	$-19.8548 - 10.4353I$
$u = -0.517939 + 0.301061I$ $a = 1.028670 + 0.666314I$ $b = 0.280251 + 0.735240I$	$0.73495 + 2.61446I$	$6.80748 - 3.27296I$
$u = -0.517939 - 0.301061I$ $a = 1.028670 - 0.666314I$ $b = 0.280251 - 0.735240I$	$0.73495 - 2.61446I$	$6.80748 + 3.27296I$
$u = 0.392523 + 0.351980I$ $a = 1.42826 - 0.06907I$ $b = 0.413573 + 0.275375I$	$0.839103 + 0.963368I$	$7.10556 - 5.20772I$
$u = 0.392523 - 0.351980I$ $a = 1.42826 + 0.06907I$ $b = 0.413573 - 0.275375I$	$0.839103 - 0.963368I$	$7.10556 + 5.20772I$
$u = -0.06198 + 1.50181I$ $a = -0.653059 - 0.670228I$ $b = -1.79399 - 1.78019I$	$-5.03695 + 1.09402I$	0
$u = -0.06198 - 1.50181I$ $a = -0.653059 + 0.670228I$ $b = -1.79399 + 1.78019I$	$-5.03695 - 1.09402I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.11826 + 1.51394I$ $a = 0.260990 + 0.435541I$ $b = -0.700219 + 0.765497I$	$-2.00563 - 1.98586I$	0
$u = -0.11826 - 1.51394I$ $a = 0.260990 - 0.435541I$ $b = -0.700219 - 0.765497I$	$-2.00563 + 1.98586I$	0
$u = 0.147327 + 0.456963I$ $a = 2.93201 + 0.62412I$ $b = 0.304651 + 0.556917I$	$0.94420 + 1.17734I$	$5.61906 - 3.35640I$
$u = 0.147327 - 0.456963I$ $a = 2.93201 - 0.62412I$ $b = 0.304651 - 0.556917I$	$0.94420 - 1.17734I$	$5.61906 + 3.35640I$
$u = 0.08159 + 1.53711I$ $a = -0.78166 + 1.90967I$ $b = -2.08548 + 3.23108I$	$-5.71528 + 2.30391I$	0
$u = 0.08159 - 1.53711I$ $a = -0.78166 - 1.90967I$ $b = -2.08548 - 3.23108I$	$-5.71528 - 2.30391I$	0
$u = -0.13998 + 1.54014I$ $a = -0.04025 + 2.04781I$ $b = -0.40909 + 4.23233I$	$-2.69459 - 5.99005I$	0
$u = -0.13998 - 1.54014I$ $a = -0.04025 - 2.04781I$ $b = -0.40909 - 4.23233I$	$-2.69459 + 5.99005I$	0
$u = 0.11703 + 1.54415I$ $a = 2.07571 - 3.59104I$ $b = 3.41746 - 5.93402I$	$-4.76295 + 3.50697I$	0
$u = 0.11703 - 1.54415I$ $a = 2.07571 + 3.59104I$ $b = 3.41746 + 5.93402I$	$-4.76295 - 3.50697I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.14909 + 1.57118I$ $a = 0.35071 + 1.51086I$ $b = 1.12655 + 3.15217I$	$-7.49343 - 8.60231I$	0
$u = -0.14909 - 1.57118I$ $a = 0.35071 - 1.51086I$ $b = 1.12655 - 3.15217I$	$-7.49343 + 8.60231I$	0
$u = 0.12468 + 1.57523I$ $a = -0.587299 - 0.654804I$ $b = -0.76132 - 1.40539I$	$-7.21649 + 4.05118I$	0
$u = 0.12468 - 1.57523I$ $a = -0.587299 + 0.654804I$ $b = -0.76132 + 1.40539I$	$-7.21649 - 4.05118I$	0
$u = 0.20197 + 1.58241I$ $a = -0.010726 + 1.358400I$ $b = 0.23211 + 2.55470I$	$-4.20208 + 6.58081I$	0
$u = 0.20197 - 1.58241I$ $a = -0.010726 - 1.358400I$ $b = 0.23211 - 2.55470I$	$-4.20208 - 6.58081I$	0
$u = -0.18129 + 1.58506I$ $a = 0.26732 - 2.26211I$ $b = 0.59368 - 4.30095I$	$-3.1210 - 14.8139I$	0
$u = -0.18129 - 1.58506I$ $a = 0.26732 + 2.26211I$ $b = 0.59368 + 4.30095I$	$-3.1210 + 14.8139I$	0
$u = -0.02508 + 1.59817I$ $a = -0.41143 - 1.74917I$ $b = -0.48200 - 3.40640I$	$-10.80680 + 0.74411I$	0
$u = -0.02508 - 1.59817I$ $a = -0.41143 + 1.74917I$ $b = -0.48200 + 3.40640I$	$-10.80680 - 0.74411I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u =$	$0.03260 + 1.64453I$		
$a =$	$0.806611 + 1.109860I$	$-8.94151 + 5.46940I$	0
$b =$	$1.82175 + 2.09258I$		
$u =$	$0.03260 - 1.64453I$		
$a =$	$0.806611 - 1.109860I$	$-8.94151 - 5.46940I$	0
$b =$	$1.82175 - 2.09258I$		
$u =$	0.232267		
$a =$	3.13420	2.24636	1.69410
$b =$	1.23226		

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$u^{53} - 3u^{52} + \cdots - u + 1$
c_2, c_4	$u^{53} + u^{52} + \cdots + 9u - 1$
c_3	$u^{53} - 9u^{52} + \cdots + u - 1$
c_5, c_6, c_9 c_{10}	$u^{53} + u^{52} + \cdots + 3u - 1$
c_7	$u^{53} + u^{52} + \cdots - 721u - 271$
c_8	$u^{53} - u^{52} + \cdots + 37u - 89$
c_{11}	$u^{53} - 11u^{52} + \cdots + 1317u - 163$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$y^{53} - 9y^{52} + \cdots + 3y - 1$
c_2, c_4	$y^{53} - 37y^{52} + \cdots - 9y - 1$
c_3	$y^{53} + 3y^{52} + \cdots - 9y - 1$
c_5, c_6, c_9 c_{10}	$y^{53} + 59y^{52} + \cdots + 3y - 1$
c_7	$y^{53} + 35y^{52} + \cdots + 1272679y - 73441$
c_8	$y^{53} + 59y^{52} + \cdots - 255841y - 7921$
c_{11}	$y^{53} + 19y^{52} + \cdots + 1976055y - 26569$