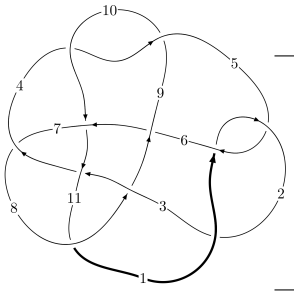
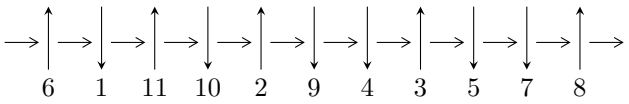
$11a_{138}$ $(K11a_{138})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 4.64020 \times 10^{132} u^{93} - 4.93260 \times 10^{132} u^{92} + \cdots + 3.94596 \times 10^{132} b + 2.57397 \times 10^{133}, \\ & 5.66772 \times 10^{133} u^{93} + 4.81293 \times 10^{132} u^{92} + \cdots + 7.49732 \times 10^{133} a + 2.94172 \times 10^{134}, \\ & u^{94} + 18u^{92} + \cdots + 86u + 19 \rangle \\ I_2^u = \langle & u^{13} + u^{12} + 4u^{11} + 5u^{10} + 9u^9 + 12u^8 + 14u^7 + 18u^6 + 14u^5 + 16u^4 + 10u^3 + 7u^2 + b + 3u + 2, \\ & 2u^{11} + u^{10} + 6u^9 + 3u^8 + 10u^7 + 6u^6 + 11u^5 + 6u^4 + 5u^3 + u^2 + a + 2u, \\ & u^{14} + u^{13} + 4u^{12} + 4u^{11} + 9u^{10} + 9u^9 + 14u^8 + 13u^7 + 14u^6 + 11u^5 + 10u^4 + 6u^3 + 4u^2 + 2u + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 108 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. $\boldsymbol{I_1^u = \langle 4.64 \times 10^{132} u^{93} - 4.93 \times 10^{132} u^{92} + \cdots + 3.95 \times 10^{132} b + 2.57 \times 10^{133},\ 5.67 \times 10^{133} u^{93} + 4.81 \times 10^{132} u^{92} + \cdots + 7.50 \times 10^{133} a + 2.94 \times 10^{134},\ u^{94} + 18 u^{92} + \cdots + 86u + 19 \rangle}$

(i) Arc colorings

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

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.755966u^{93} - 0.0641953u^{92} + \cdots - 15.1145u - 3.92369 \\ -1.17594u^{93} + 1.25004u^{92} + \cdots - 56.7451u - 6.52306 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -2.28733u^{93} + 2.35688u^{92} + \cdots - 121.002u - 13.5839 \\ 1.36980u^{93} - 1.75146u^{92} + \cdots - 20.3031u - 19.9674 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.419971u^{93} - 1.31423u^{92} + \cdots + 41.6306u + 2.59936 \\ -1.17594u^{93} + 1.25004u^{92} + \cdots - 56.7451u - 6.52306 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^3 \\ u^5 + u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1.02372u^{93} + 2.01186u^{92} + \cdots + 240.302u + 51.4766 \\ 2.60768u^{93} - 0.842489u^{92} + \cdots + 189.866u + 42.1854 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -1.25959u^{93} - 0.266213u^{92} + \cdots - 77.3471u - 18.8004 \\ -1.08401u^{93} + 1.21540u^{92} + \cdots - 51.7820u - 4.28835 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -2.05177u^{93} + 1.06053u^{92} + \cdots - 195.102u - 45.8558 \\ 1.21606u^{93} - 0.797164u^{92} + \cdots + 40.0767u - 1.76508 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -2.05177u^{93} + 1.06053u^{92} + \cdots - 195.102u - 45.8558 \\ 1.21606u^{93} - 0.797164u^{92} + \cdots + 40.0767u - 1.76508 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -17.7102u^{93} + 16.3821u^{92} + \cdots - 633.419u - 58.7338$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{94} + 18u^{92} + \cdots - 86u + 19$
c_2	$u^{94} + 36u^{93} + \cdots + 8108u + 361$
c_3	$u^{94} + 5u^{93} + \cdots + 88u + 11$
c_4, c_9	$u^{94} - u^{93} + \cdots - 724u + 59$
c_6	$u^{94} + u^{93} + \cdots + 33u + 781$
c_7	$u^{94} + 3u^{93} + \cdots - 872u + 184$
c_8	$u^{94} - u^{93} + \cdots + 6u + 1$
c_{10}	$u^{94} - 2u^{93} + \cdots - 22u + 1$
c_{11}	$u^{94} - 3u^{93} + \cdots + 519u + 19$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{94} + 36y^{93} + \cdots + 8108y + 361$
c_2	$y^{94} + 48y^{93} + \cdots + 13235584y + 130321$
c_3	$y^{94} + 9y^{93} + \cdots + 7084y + 121$
c_4, c_9	$y^{94} + 69y^{93} + \cdots - 23148y + 3481$
c_6	$y^{94} + 27y^{93} + \cdots + 20468921y + 609961$
c_7	$y^{94} + 23y^{93} + \cdots + 1507232y + 33856$
c_8	$y^{94} - 5y^{93} + \cdots - 10y + 1$
c_{10}	$y^{94} + 8y^{93} + \cdots - 18y + 1$
c_{11}	$y^{94} - 15y^{93} + \cdots - 72597y + 361$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.772806 + 0.634311I$ $a = 0.654406 - 0.353128I$ $b = 0.323430 + 1.127770I$	$2.72382 - 3.59329I$	0
$u = 0.772806 - 0.634311I$ $a = 0.654406 + 0.353128I$ $b = 0.323430 - 1.127770I$	$2.72382 + 3.59329I$	0
$u = 0.274173 + 0.962209I$ $a = -1.50690 - 0.97979I$ $b = -0.396852 + 0.187929I$	$-4.34588 + 0.86890I$	0
$u = 0.274173 - 0.962209I$ $a = -1.50690 + 0.97979I$ $b = -0.396852 - 0.187929I$	$-4.34588 - 0.86890I$	0
$u = -0.668968 + 0.720659I$ $a = 1.016990 - 0.259896I$ $b = 0.775819 + 0.307672I$	$0.151749 - 0.477282I$	0
$u = -0.668968 - 0.720659I$ $a = 1.016990 + 0.259896I$ $b = 0.775819 - 0.307672I$	$0.151749 + 0.477282I$	0
$u = -0.850683 + 0.581825I$ $a = 0.246185 - 0.369614I$ $b = -0.406184 + 0.185472I$	$1.11160 - 3.31196I$	0
$u = -0.850683 - 0.581825I$ $a = 0.246185 + 0.369614I$ $b = -0.406184 - 0.185472I$	$1.11160 + 3.31196I$	0
$u = -0.592379 + 0.857518I$ $a = -1.82681 + 0.35619I$ $b = -0.07407 - 1.92793I$	$2.76989 - 2.34388I$	0
$u = -0.592379 - 0.857518I$ $a = -1.82681 - 0.35619I$ $b = -0.07407 + 1.92793I$	$2.76989 + 2.34388I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.695476 + 0.779469I$ $a = -0.0831373 - 0.0411398I$ $b = 0.49756 + 1.48450I$	$6.51815 - 3.45234I$	0
$u = 0.695476 - 0.779469I$ $a = -0.0831373 + 0.0411398I$ $b = 0.49756 - 1.48450I$	$6.51815 + 3.45234I$	0
$u = 0.788570 + 0.519422I$ $a = -0.156445 - 0.492745I$ $b = -1.038060 - 0.306914I$	$0.81606 - 6.58212I$	0
$u = 0.788570 - 0.519422I$ $a = -0.156445 + 0.492745I$ $b = -1.038060 + 0.306914I$	$0.81606 + 6.58212I$	0
$u = -0.634876 + 0.844268I$ $a = -0.46562 - 1.35344I$ $b = 0.021145 + 1.273010I$	$5.15766 - 6.81146I$	0
$u = -0.634876 - 0.844268I$ $a = -0.46562 + 1.35344I$ $b = 0.021145 - 1.273010I$	$5.15766 + 6.81146I$	0
$u = -0.055511 + 1.062530I$ $a = -1.33304 - 1.27786I$ $b = -0.309524 - 0.906382I$	$-3.10746 - 3.06338I$	0
$u = -0.055511 - 1.062530I$ $a = -1.33304 + 1.27786I$ $b = -0.309524 + 0.906382I$	$-3.10746 + 3.06338I$	0
$u = 0.236372 + 0.894495I$ $a = 0.584905 - 0.267844I$ $b = 0.511218 + 0.245300I$	$-1.55461 - 1.18795I$	0
$u = 0.236372 - 0.894495I$ $a = 0.584905 + 0.267844I$ $b = 0.511218 - 0.245300I$	$-1.55461 + 1.18795I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.641346+0.865360I$ $a=\ \ 2.75194-0.57405I$ $b=\ \ 0.016454+1.166590I$	$5.09034+1.82821I$	0
$u=-0.641346-0.865360I$ $a=\ \ 2.75194+0.57405I$ $b=\ \ 0.016454-1.166590I$	$5.09034-1.82821I$	0
$u=-0.525700+0.752927I$ $a=-0.89280+2.31089I$ $b=-1.98203+0.34607I$	$1.74995-1.48935I$	0
$u=-0.525700-0.752927I$ $a=-0.89280-2.31089I$ $b=-1.98203-0.34607I$	$1.74995+1.48935I$	0
$u=\ \ 0.745984+0.804640I$ $a=\ \ 0.518167+0.550405I$ $b=-0.017640-1.382970I$	$6.26917+2.63292I$	0
$u=\ \ 0.745984-0.804640I$ $a=\ \ 0.518167-0.550405I$ $b=-0.017640+1.382970I$	$6.26917-2.63292I$	0
$u=\ \ 0.671783+0.586083I$ $a=\ \ 0.914349+0.610791I$ $b=\ \ 0.058421+0.261763I$	$2.58045-2.08956I$	0
$u=\ \ 0.671783-0.586083I$ $a=\ \ 0.914349-0.610791I$ $b=\ \ 0.058421-0.261763I$	$2.58045+2.08956I$	0
$u=\ \ 0.526379+0.975572I$ $a=-1.44051-0.75191I$ $b=-0.763585+0.052468I$	$-2.74009+4.79051I$	0
$u=\ \ 0.526379-0.975572I$ $a=-1.44051+0.75191I$ $b=-0.763585-0.052468I$	$-2.74009-4.79051I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.074483+0.887023I$ $a=-2.35571+0.01736I$ $b=-0.392699-0.616020I$	$-4.11297-0.07058I$	0
$u=-0.074483-0.887023I$ $a=-2.35571-0.01736I$ $b=-0.392699+0.616020I$	$-4.11297+0.07058I$	0
$u=-0.580548+0.957210I$ $a=\ \ 0.925621-1.041840I$ $b=\ \ 1.55006-0.19164I$	$1.01885-3.00871I$	0
$u=-0.580548-0.957210I$ $a=\ \ 0.925621+1.041840I$ $b=\ \ 1.55006+0.19164I$	$1.01885+3.00871I$	0
$u=-0.951027+0.599721I$ $a=-0.111890-0.437886I$ $b=-0.44750+1.44323I$	$6.25206+11.87070I$	0
$u=-0.951027-0.599721I$ $a=-0.111890+0.437886I$ $b=-0.44750-1.44323I$	$6.25206-11.87070I$	0
$u=\ \ 0.732135+0.860734I$ $a=\ \ 1.005030+0.992719I$ $b=\ \ 0.028028-1.366640I$	$6.12499+2.78185I$	0
$u=\ \ 0.732135-0.860734I$ $a=\ \ 1.005030-0.992719I$ $b=\ \ 0.028028+1.366640I$	$6.12499-2.78185I$	0
$u=\ \ 0.958234+0.600549I$ $a=\ \ 0.123572+0.356908I$ $b=-0.42032-1.41277I$	$7.78536-3.65950I$	0
$u=\ \ 0.958234-0.600549I$ $a=\ \ 0.123572-0.356908I$ $b=-0.42032+1.41277I$	$7.78536+3.65950I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.005510+0.537423I$ $a=\ \ 0.122451+0.343879I$ $b=\ \ 0.037827-1.272200I$	$7.14357+2.45971I$	0
$u=-1.005510-0.537423I$ $a=\ \ 0.122451-0.343879I$ $b=\ \ 0.037827+1.272200I$	$7.14357-2.45971I$	0
$u=\ \ 0.675420+0.918989I$ $a=-2.18182-0.37521I$ $b=-0.61045+1.43716I$	$6.09111+8.73034I$	0
$u=\ \ 0.675420-0.918989I$ $a=-2.18182+0.37521I$ $b=-0.61045-1.43716I$	$6.09111-8.73034I$	0
$u=\ \ 0.712836+0.893503I$ $a=\ \ 1.53261+0.58456I$ $b=\ \ 0.091292-1.304300I$	$6.00363+2.90156I$	0
$u=\ \ 0.712836-0.893503I$ $a=\ \ 1.53261-0.58456I$ $b=\ \ 0.091292+1.304300I$	$6.00363-2.90156I$	0
$u=-0.345824+1.101660I$ $a=\ \ 1.141930+0.185898I$ $b=\ \ 0.603382+0.869419I$	$-0.62322-2.44856I$	0
$u=-0.345824-1.101660I$ $a=\ \ 1.141930-0.185898I$ $b=\ \ 0.603382-0.869419I$	$-0.62322+2.44856I$	0
$u=-0.000285+1.159920I$ $a=\ \ 1.54808+0.18416I$ $b=\ \ 1.026390-0.109768I$	$-5.00871-4.94387I$	0
$u=-0.000285-1.159920I$ $a=\ \ 1.54808-0.18416I$ $b=\ \ 1.026390+0.109768I$	$-5.00871+4.94387I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.655266+0.957538I$ $a=-0.769510+0.926165I$ $b=-0.787945+0.438625I$	$-0.56730-4.67706I$	0
$u=-0.655266-0.957538I$ $a=-0.769510-0.926165I$ $b=-0.787945-0.438625I$	$-0.56730+4.67706I$	0
$u=-0.666004+0.953204I$ $a=0.087492+0.245071I$ $b=-0.114983+0.471358I$	$0.27532-2.65301I$	0
$u=-0.666004-0.953204I$ $a=0.087492-0.245071I$ $b=-0.114983-0.471358I$	$0.27532+2.65301I$	0
$u=1.154050+0.229156I$ $a=-0.085538-0.424689I$ $b=-0.257221+1.181700I$	$4.11766+6.08651I$	0
$u=1.154050-0.229156I$ $a=-0.085538+0.424689I$ $b=-0.257221-1.181700I$	$4.11766-6.08651I$	0
$u=-0.187919+1.179450I$ $a=-0.23806+1.49296I$ $b=-0.192572+1.202220I$	$-1.19365+1.54765I$	0
$u=-0.187919-1.179450I$ $a=-0.23806-1.49296I$ $b=-0.192572-1.202220I$	$-1.19365-1.54765I$	0
$u=-0.326338+0.736385I$ $a=0.78017+1.23125I$ $b=-0.18957+1.50632I$	$1.27718-1.12906I$	$0.+8.56512I$
$u=-0.326338-0.736385I$ $a=0.78017-1.23125I$ $b=-0.18957-1.50632I$	$1.27718+1.12906I$	$0.-8.56512I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.626927 + 1.026070I$ $a = -0.887439 + 0.291449I$ $b = -0.219156 + 0.031541I$	$1.27843 + 7.16623I$	0
$u = 0.626927 - 1.026070I$ $a = -0.887439 - 0.291449I$ $b = -0.219156 - 0.031541I$	$1.27843 - 7.16623I$	0
$u = -0.596735 + 1.047630I$ $a = -2.34499 - 0.11082I$ $b = -0.335532 - 1.314630I$	$1.55735 - 8.77630I$	0
$u = -0.596735 - 1.047630I$ $a = -2.34499 + 0.11082I$ $b = -0.335532 + 1.314630I$	$1.55735 + 8.77630I$	0
$u = 0.685534 + 1.022400I$ $a = -2.16852 - 0.27137I$ $b = -0.393570 + 1.109630I$	$1.56372 + 9.12407I$	0
$u = 0.685534 - 1.022400I$ $a = -2.16852 + 0.27137I$ $b = -0.393570 - 1.109630I$	$1.56372 - 9.12407I$	0
$u = -0.047677 + 0.756229I$ $a = -0.42309 - 3.09688I$ $b = -0.395353 - 1.035110I$	$2.25517 - 5.11870I$	$-2.20140 + 6.13323I$
$u = -0.047677 - 0.756229I$ $a = -0.42309 + 3.09688I$ $b = -0.395353 + 1.035110I$	$2.25517 + 5.11870I$	$-2.20140 - 6.13323I$
$u = 0.655731 + 1.063820I$ $a = 1.22402 + 0.83471I$ $b = 1.224470 - 0.281109I$	$-0.78035 + 12.02030I$	0
$u = 0.655731 - 1.063820I$ $a = 1.22402 - 0.83471I$ $b = 1.224470 + 0.281109I$	$-0.78035 - 12.02030I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.182172 + 1.261940I$ $a = 1.121570 - 0.834834I$ $b = 0.488375 - 1.242020I$	$-1.47238 + 10.24950I$	0
$u = 0.182172 - 1.261940I$ $a = 1.121570 + 0.834834I$ $b = 0.488375 + 1.242020I$	$-1.47238 - 10.24950I$	0
$u = -0.603887 + 1.145810I$ $a = 0.953355 - 0.243039I$ $b = 0.591619 + 0.772499I$	$-0.76570 - 2.63619I$	0
$u = -0.603887 - 1.145810I$ $a = 0.953355 + 0.243039I$ $b = 0.591619 - 0.772499I$	$-0.76570 + 2.63619I$	0
$u = 0.737805 + 1.096790I$ $a = 1.67408 + 0.29049I$ $b = 0.52519 - 1.47427I$	$6.23852 + 9.84950I$	0
$u = 0.737805 - 1.096790I$ $a = 1.67408 - 0.29049I$ $b = 0.52519 + 1.47427I$	$6.23852 - 9.84950I$	0
$u = -0.735857 + 1.101580I$ $a = 1.89050 - 0.32118I$ $b = 0.50557 + 1.47563I$	$4.6871 - 18.0471I$	0
$u = -0.735857 - 1.101580I$ $a = 1.89050 + 0.32118I$ $b = 0.50557 - 1.47563I$	$4.6871 + 18.0471I$	0
$u = -0.566930 + 0.359574I$ $a = 0.754801 - 0.127800I$ $b = -0.023311 + 1.049270I$	$1.32685 - 1.54158I$	$1.03113 + 4.33342I$
$u = -0.566930 - 0.359574I$ $a = 0.754801 + 0.127800I$ $b = -0.023311 - 1.049270I$	$1.32685 + 1.54158I$	$1.03113 - 4.33342I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.890802 + 0.990398I$ $a = -0.817185 - 0.696866I$ $b = -0.056817 + 1.121290I$	$2.07734 + 3.40281I$	0
$u = 0.890802 - 0.990398I$ $a = -0.817185 + 0.696866I$ $b = -0.056817 - 1.121290I$	$2.07734 - 3.40281I$	0
$u = -0.348886 + 0.562301I$ $a = 1.195460 + 0.536521I$ $b = 0.247153 - 1.340050I$	$3.26202 + 4.12377I$	$-3.82614 - 3.00808I$
$u = -0.348886 - 0.562301I$ $a = 1.195460 - 0.536521I$ $b = 0.247153 + 1.340050I$	$3.26202 - 4.12377I$	$-3.82614 + 3.00808I$
$u = -0.558579 + 0.339705I$ $a = 0.768407 + 0.240717I$ $b = 0.256866 - 1.331450I$	$3.25748 + 4.05422I$	$-1.13185 - 3.03795I$
$u = -0.558579 - 0.339705I$ $a = 0.768407 - 0.240717I$ $b = 0.256866 + 1.331450I$	$3.25748 - 4.05422I$	$-1.13185 + 3.03795I$
$u = -0.734623 + 1.141250I$ $a = -1.44177 - 0.07493I$ $b = -0.148209 - 1.261650I$	$5.26894 - 8.76068I$	0
$u = -0.734623 - 1.141250I$ $a = -1.44177 + 0.07493I$ $b = -0.148209 + 1.261650I$	$5.26894 + 8.76068I$	0
$u = 0.191973 + 1.387140I$ $a = -0.263972 + 0.619990I$ $b = 0.106090 + 1.007680I$	$-0.794911 - 0.333244I$	0
$u = 0.191973 - 1.387140I$ $a = -0.263972 - 0.619990I$ $b = 0.106090 - 1.007680I$	$-0.794911 + 0.333244I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.372193 + 0.319512I$ $a = 0.998264 + 0.064184I$ $b = 0.607494 + 0.135159I$	$-1.35478 - 0.87382I$	$-4.52639 + 1.86312I$
$u = 0.372193 - 0.319512I$ $a = 0.998264 - 0.064184I$ $b = 0.607494 - 0.135159I$	$-1.35478 + 0.87382I$	$-4.52639 - 1.86312I$
$u = -0.331512 + 0.359265I$ $a = 1.78673 + 1.36730I$ $b = -0.620713 + 0.798404I$	$1.80205 - 1.10971I$	$0.93812 - 3.27932I$
$u = -0.331512 - 0.359265I$ $a = 1.78673 - 1.36730I$ $b = -0.620713 - 0.798404I$	$1.80205 + 1.10971I$	$0.93812 + 3.27932I$

II.

$\boldsymbol{I_2^u = \langle u^{13}+u^{12}+\cdots+b+2,\ 2u^{11}+u^{10}+\cdots+a+2u,\ u^{14}+u^{13}+\cdots+2u+1\rangle}$

(i) Arc colorings

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

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -2u^{11}-u^{10}-6u^9-3u^8-10u^7-6u^6-11u^5-6u^4-5u^3-u^2-2u \\ -u^{13}-u^{12}+\cdots-3u-2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^{13}+3u^{11}-u^{10}+5u^9-2u^8+5u^7-4u^6+u^5-5u^4-u^3-2u^2-2u-1 \\ -u^{13}-u^{12}+\cdots-u-2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^{13}+u^{12}+\cdots+u+2 \\ -u^{13}-u^{12}+\cdots-3u-2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u \\ u^3+u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^3 \\ u^5+u^3+u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u^{11}-2u^{10}+\cdots-5u-3 \\ 2u^{13}+3u^{12}+\cdots+5u+3 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u^{13}-u^{12}+\cdots-u^2-2u \\ -u^{13}-u^{12}+\cdots-3u-2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^{12}+u^{11}+\cdots+3u+1 \\ -u^{11}-u^{10}+\cdots-2u-1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^{12}+u^{11}+\cdots+3u+1 \\ -u^{11}-u^{10}+\cdots-2u-1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $=$
$12u^{12}+18u^{11}+51u^{10}+68u^9+109u^8+136u^7+159u^6+172u^5+138u^4+106u^3+58u^2+22u+3$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{14} - u^{13} + \cdots - 2u + 1$
c_2	$u^{14} + 7u^{13} + \cdots + 4u + 1$
c_3	$u^{14} - 2u^{13} + \cdots + 2u + 1$
c_4	$u^{14} - 2u^{13} + \cdots + 4u + 1$
c_5	$u^{14} + u^{13} + \cdots + 2u + 1$
c_6	$u^{14} - 6u^{13} + \cdots - 5u + 1$
c_7	$u^{14} + u^{12} + \cdots + 4u + 1$
c_8	$u^{14} + 2u^{13} + \cdots - 4u + 1$
c_9	$u^{14} + 2u^{13} + \cdots - 4u + 1$
c_{10}	$u^{14} - u^{13} + \cdots + 6u + 1$
c_{11}	$u^{14} + 2u^{13} + \cdots - 3u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{14} + 7y^{13} + \cdots + 4y + 1$
c_2	$y^{14} + 3y^{13} + \cdots + 8y + 1$
c_3	$y^{14} + 14y^{12} + \cdots + 4y + 1$
c_4, c_9	$y^{14} + 8y^{13} + \cdots + 8y + 1$
c_6	$y^{14} + 10y^{13} + \cdots + 21y + 1$
c_7	$y^{14} + 2y^{13} + \cdots + 8y + 1$
c_8	$y^{14} - 6y^{13} + \cdots - 2y + 1$
c_{10}	$y^{14} + 3y^{13} + \cdots + 6y + 1$
c_{11}	$y^{14} + 4y^{13} + \cdots - 9y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 0.218324 + 0.879322I$ $a = -1.96027 - 0.46467I$ $b = -0.162661 + 0.485719I$	$-3.70335 + 0.96919I$	$-0.59112 - 6.46740I$
$u = \ 0.218324 - 0.879322I$ $a = -1.96027 + 0.46467I$ $b = -0.162661 - 0.485719I$	$-3.70335 - 0.96919I$	$-0.59112 + 6.46740I$
$u = \ 0.473825 + 0.725334I$ $a = \ 0.01391 + 2.38263I$ $b = \ 1.60251 + 0.99512I$	$1.64938 + 1.47694I$	$-29.7777 - 30.0683I$
$u = \ 0.473825 - 0.725334I$ $a = \ 0.01391 - 2.38263I$ $b = \ 1.60251 - 0.99512I$	$1.64938 - 1.47694I$	$-29.7777 + 30.0683I$
$u = -0.595922 + 0.607204I$ $a = \ 0.945335 - 0.267349I$ $b = \ 0.302919 - 1.239800I$	$4.21333 + 4.10072I$	$5.58747 - 4.56335I$
$u = -0.595922 - 0.607204I$ $a = \ 0.945335 + 0.267349I$ $b = \ 0.302919 + 1.239800I$	$4.21333 - 4.10072I$	$5.58747 + 4.56335I$
$u = -0.629454 + 1.045370I$ $a = -2.09610 - 0.26908I$ $b = -0.349529 - 1.173940I$	$2.82526 - 9.05252I$	$3.02000 + 9.52611I$
$u = -0.629454 - 1.045370I$ $a = -2.09610 + 0.26908I$ $b = -0.349529 + 1.173940I$	$2.82526 + 9.05252I$	$3.02000 - 9.52611I$
$u = -0.667304 + 0.401977I$ $a = -0.431520 - 0.984997I$ $b = \ 0.192104 + 1.232700I$	$4.15226 - 5.01003I$	$2.89129 + 5.27661I$
$u = -0.667304 - 0.401977I$ $a = -0.431520 + 0.984997I$ $b = \ 0.192104 - 1.232700I$	$4.15226 + 5.01003I$	$2.89129 - 5.27661I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.741847 + 1.006640I$ $a = -0.577773 - 0.533636I$ $b = -0.366793 + 0.275377I$	$-0.27543 + 3.16621I$	$-5.01739 - 7.56548I$
$u = \quad 0.741847 - 1.006640I$ $a = -0.577773 + 0.533636I$ $b = -0.366793 - 0.275377I$	$-0.27543 - 3.16621I$	$-5.01739 + 7.56548I$
$u = -0.041315 + 1.259020I$ $a = -0.393580 + 1.006660I$ $b = -0.218548 + 1.136130I$	$-0.636777 + 1.162530I$	$0.38748 - 2.64720I$
$u = -0.041315 - 1.259020I$ $a = -0.393580 - 1.006660I$ $b = -0.218548 - 1.136130I$	$-0.636777 - 1.162530I$	$0.38748 + 2.64720I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{14}-u^{13}+\cdots-2u+1)(u^{94}+18u^{92}+\cdots-86u+19)$
c_2	$(u^{14}+7u^{13}+\cdots+4u+1)(u^{94}+36u^{93}+\cdots+8108u+361)$
c_3	$(u^{14}-2u^{13}+\cdots+2u+1)(u^{94}+5u^{93}+\cdots+88u+11)$
c_4	$(u^{14}-2u^{13}+\cdots+4u+1)(u^{94}-u^{93}+\cdots-724u+59)$
c_5	$(u^{14}+u^{13}+\cdots+2u+1)(u^{94}+18u^{92}+\cdots-86u+19)$
c_6	$(u^{14}-6u^{13}+\cdots-5u+1)(u^{94}+u^{93}+\cdots+33u+781)$
c_7	$(u^{14}+u^{12}+\cdots+4u+1)(u^{94}+3u^{93}+\cdots-872u+184)$
c_8	$(u^{14}+2u^{13}+\cdots-4u+1)(u^{94}-u^{93}+\cdots+6u+1)$
c_9	$(u^{14}+2u^{13}+\cdots-4u+1)(u^{94}-u^{93}+\cdots-724u+59)$
c_{10}	$(u^{14}-u^{13}+\cdots+6u+1)(u^{94}-2u^{93}+\cdots-22u+1)$
c_{11}	$(u^{14}+2u^{13}+\cdots-3u+1)(u^{94}-3u^{93}+\cdots+519u+19)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$(y^{14}+7y^{13}+\cdots+4y+1)(y^{94}+36y^{93}+\cdots+8108y+361)$
c_2	$(y^{14}+3y^{13}+\cdots+8y+1)(y^{94}+48y^{93}+\cdots+1.32356\times 10^{7}y+130321)$
c_3	$(y^{14}+14y^{12}+\cdots+4y+1)(y^{94}+9y^{93}+\cdots+7084y+121)$
c_4, c_9	$(y^{14}+8y^{13}+\cdots+8y+1)(y^{94}+69y^{93}+\cdots-23148y+3481)$
c_6	$(y^{14}+10y^{13}+\cdots+21y+1)$ $\cdot(y^{94}+27y^{93}+\cdots+20468921y+609961)$
c_7	$(y^{14}+2y^{13}+\cdots+8y+1)(y^{94}+23y^{93}+\cdots+1507232y+33856)$
c_8	$(y^{14}-6y^{13}+\cdots-2y+1)(y^{94}-5y^{93}+\cdots-10y+1)$
c_{10}	$(y^{14}+3y^{13}+\cdots+6y+1)(y^{94}+8y^{93}+\cdots-18y+1)$
c_{11}	$(y^{14}+4y^{13}+\cdots-9y+1)(y^{94}-15y^{93}+\cdots-72597y+361)$