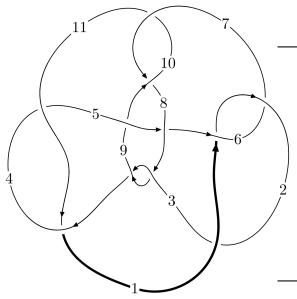
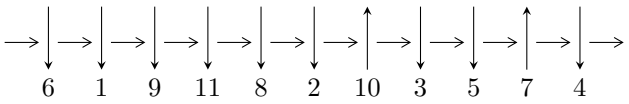
$11a_{213}$ $(K11a_{213})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$I_1^u = \langle -4.59610 \times 10^{222} u^{91} - 6.94766 \times 10^{222} u^{90} + \cdots + 2.72339 \times 10^{221} b - 1.01661 \times 10^{223},$
$2.92189 \times 10^{222} u^{91} + 4.36878 \times 10^{222} u^{90} + \cdots + 2.72339 \times 10^{221} a + 5.95579 \times 10^{222},\ u^{92} + u^{91} + \cdots + u -$
$I_2^u = \langle 21u^{19} - 10u^{18} + \cdots + b + 23,\ 5u^{19} - 6u^{18} + \cdots + a + 8,\ u^{20} - 6u^{18} + \cdots + u + 1 \rangle$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 112 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. $\boldsymbol{I_1^u = \langle -4.60 \times 10^{222} u^{91} - 6.95 \times 10^{222} u^{90} + \cdots + 2.72 \times 10^{221} b - 1.02 \times 10^{223},\ 2.92 \times 10^{222} u^{91} + 4.37 \times 10^{222} u^{90} + \cdots + 2.72 \times 10^{221} a + 5.96 \times 10^{222},\ u^{92} + u^{91} + \cdots + u - 1 \rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -10.7288u^{91} - 16.0417u^{90} + \cdots - 20.4887u - 21.8690 \\ 16.8764u^{91} + 25.5110u^{90} + \cdots + 40.6206u + 37.3287 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} 11.2348u^{91} + 18.9978u^{90} + \cdots + 36.0229u + 34.6600 \\ -2.18240u^{91} - 2.39881u^{90} + \cdots - 15.0995u - 5.11898 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 6.14754u^{91} + 9.46936u^{90} + \cdots + 20.1319u + 15.4597 \\ 16.8764u^{91} + 25.5110u^{90} + \cdots + 40.6206u + 37.3287 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -11.4198u^{91} - 18.6265u^{90} + \cdots - 26.8279u - 28.8392 \\ 4.48198u^{91} + 6.96790u^{90} + \cdots + 21.3086u + 14.8116 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -13.4484u^{91} - 22.4378u^{90} + \cdots - 32.7548u - 36.7310 \\ 2.53485u^{91} + 3.73696u^{90} + \cdots + 15.6276u + 8.70253 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 5.28893u^{91} + 7.49597u^{90} + \cdots + 10.8597u + 8.11508 \\ -17.1968u^{91} - 24.5024u^{90} + \cdots - 44.4107u - 35.8919 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -4.97114u^{91} - 5.69526u^{90} + \cdots - 16.4325u - 7.23098 \\ -14.9240u^{91} - 21.0249u^{90} + \cdots - 36.6876u - 27.4447 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -4.97114u^{91} - 5.69526u^{90} + \cdots - 16.4325u - 7.23098 \\ -14.9240u^{91} - 21.0249u^{90} + \cdots - 36.6876u - 27.4447 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 19.2599u^{91} + 27.9333u^{90} + \cdots + 2.33262u + 18.9254$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{92} - u^{91} + \cdots + 54u - 143$
c_2	$u^{92} + 41u^{91} + \cdots + 295208u + 20449$
c_3, c_8	$u^{92} - u^{91} + \cdots - u - 1$
c_4, c_{11}	$u^{92} - 3u^{91} + \cdots + 442u - 347$
c_5	$u^{92} - 3u^{91} + \cdots + 678u + 68$
c_7, c_{10}	$u^{92} + 3u^{91} + \cdots + 734u + 79$
c_9	$u^{92} + u^{91} + \cdots - 3505u - 387$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{92} - 41y^{91} + \cdots - 295208y + 20449$
c_2	$y^{92} + 31y^{91} + \cdots - 131051768y + 418161601$
c_3, c_8	$y^{92} - 51y^{91} + \cdots - 27y + 1$
c_4, c_{11}	$y^{92} + 59y^{91} + \cdots + 3735452y + 120409$
c_5	$y^{92} - 17y^{91} + \cdots + 950500y + 4624$
c_7, c_{10}	$y^{92} + 49y^{91} + \cdots - 26204y + 6241$
c_9	$y^{92} - 11y^{91} + \cdots - 5497819y + 149769$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.899956 + 0.428154I$ $a = 1.85557 + 0.47759I$ $b = 0.010890 - 0.885762I$	$1.37334 + 1.58152I$	0
$u = 0.899956 - 0.428154I$ $a = 1.85557 - 0.47759I$ $b = 0.010890 + 0.885762I$	$1.37334 - 1.58152I$	0
$u = 1.002300 + 0.321909I$ $a = 1.082330 - 0.018089I$ $b = -0.832463 + 0.052849I$	$-0.877139 - 0.912194I$	0
$u = 1.002300 - 0.321909I$ $a = 1.082330 + 0.018089I$ $b = -0.832463 - 0.052849I$	$-0.877139 + 0.912194I$	0
$u = -0.802043 + 0.489858I$ $a = 1.48741 + 0.08320I$ $b = -0.146106 + 1.163070I$	$2.86848 + 1.82626I$	0
$u = -0.802043 - 0.489858I$ $a = 1.48741 - 0.08320I$ $b = -0.146106 - 1.163070I$	$2.86848 - 1.82626I$	0
$u = 0.363192 + 1.037260I$ $a = 0.197151 - 0.200110I$ $b = 0.385879 - 1.192380I$	$2.46469 + 5.43660I$	0
$u = 0.363192 - 1.037260I$ $a = 0.197151 + 0.200110I$ $b = 0.385879 + 1.192380I$	$2.46469 - 5.43660I$	0
$u = 0.385836 + 0.811407I$ $a = 1.25709 - 0.69261I$ $b = -0.693377 - 0.983781I$	$-2.86301 - 4.52369I$	0
$u = 0.385836 - 0.811407I$ $a = 1.25709 + 0.69261I$ $b = -0.693377 + 0.983781I$	$-2.86301 + 4.52369I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.093280+0.155448I$ $a=\ \ 0.658445+0.311986I$ $b=-0.797009-0.561932I$	$-3.87053-2.88480I$	0
$u=-1.093280-0.155448I$ $a=\ \ 0.658445-0.311986I$ $b=-0.797009+0.561932I$	$-3.87053+2.88480I$	0
$u=\ \ 1.021630+0.504770I$ $a=\ \ 1.63740+0.50649I$ $b=-0.86024-1.12424I$	$0.75507-2.54974I$	0
$u=\ \ 1.021630-0.504770I$ $a=\ \ 1.63740-0.50649I$ $b=-0.86024+1.12424I$	$0.75507+2.54974I$	0
$u=-1.098720+0.346642I$ $a=\ \ 1.299450+0.359979I$ $b=-1.258100-0.118180I$	$-4.08734+4.93913I$	0
$u=-1.098720-0.346642I$ $a=\ \ 1.299450-0.359979I$ $b=-1.258100+0.118180I$	$-4.08734-4.93913I$	0
$u=\ \ 1.020120+0.571742I$ $a=\ \ 0.984851-0.334088I$ $b=-0.522961-0.901176I$	$-2.64428-2.01886I$	0
$u=\ \ 1.020120-0.571742I$ $a=\ \ 0.984851+0.334088I$ $b=-0.522961+0.901176I$	$-2.64428+2.01886I$	0
$u=-1.026570+0.575028I$ $a=\ \ 1.36065-0.84820I$ $b=-0.50001+1.55156I$	$0.762842+0.362539I$	0
$u=-1.026570-0.575028I$ $a=\ \ 1.36065+0.84820I$ $b=-0.50001-1.55156I$	$0.762842-0.362539I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.123500+0.377477I$ $a=-1.82978+0.65129I$ $b=\ \ 0.97324-1.09916I$	$0.05662+7.54903I$	0
$u=-1.123500-0.377477I$ $a=-1.82978-0.65129I$ $b=\ \ 0.97324+1.09916I$	$0.05662-7.54903I$	0
$u=\ \ 1.138520+0.338863I$ $a=-1.63737-0.79965I$ $b=\ \ 0.63181+1.36847I$	$0.30466-3.87854I$	0
$u=\ \ 1.138520-0.338863I$ $a=-1.63737+0.79965I$ $b=\ \ 0.63181-1.36847I$	$0.30466+3.87854I$	0
$u=-0.325891+0.743657I$ $a=\ \ 0.405007-0.074605I$ $b=-0.791843-0.487373I$	$-4.17931-0.87104I$	$-12.11508+0.I$
$u=-0.325891-0.743657I$ $a=\ \ 0.405007+0.074605I$ $b=-0.791843+0.487373I$	$-4.17931+0.87104I$	$-12.11508+0.I$
$u=-0.781885+0.059041I$ $a=-2.52231-0.77094I$ $b=\ \ 1.007020+0.764873I$	$-2.08061-3.09402I$	$-11.78916+0.I$
$u=-0.781885-0.059041I$ $a=-2.52231+0.77094I$ $b=\ \ 1.007020-0.764873I$	$-2.08061+3.09402I$	$-11.78916+0.I$
$u=-0.687266+0.373381I$ $a=\ \ 1.121870+0.778326I$ $b=-0.127220+1.324110I$	$3.27963+2.01059I$	$0.-2.17901I$
$u=-0.687266-0.373381I$ $a=\ \ 1.121870-0.778326I$ $b=-0.127220-1.324110I$	$3.27963-2.01059I$	$0.+2.17901I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.058014 + 1.220800I$ $a = 0.276521 + 0.904981I$ $b = -0.174273 + 0.678980I$	$1.95041 - 1.39231I$	0
$u = 0.058014 - 1.220800I$ $a = 0.276521 - 0.904981I$ $b = -0.174273 - 0.678980I$	$1.95041 + 1.39231I$	0
$u = 1.174000 + 0.359773I$ $a = -1.90983 - 0.96169I$ $b = 0.226488 + 1.189200I$	$-1.14890 - 7.16658I$	0
$u = 1.174000 - 0.359773I$ $a = -1.90983 + 0.96169I$ $b = 0.226488 - 1.189200I$	$-1.14890 + 7.16658I$	0
$u = -1.173860 + 0.371541I$ $a = -1.76941 - 0.43236I$ $b = 0.536128 - 1.159260I$	$-7.03906 + 7.80694I$	0
$u = -1.173860 - 0.371541I$ $a = -1.76941 + 0.43236I$ $b = 0.536128 + 1.159260I$	$-7.03906 - 7.80694I$	0
$u = -1.177990 + 0.372709I$ $a = -1.37923 + 1.02172I$ $b = 0.130525 - 0.776176I$	$-0.68335 + 4.74170I$	0
$u = -1.177990 - 0.372709I$ $a = -1.37923 - 1.02172I$ $b = 0.130525 + 0.776176I$	$-0.68335 - 4.74170I$	0
$u = 1.154860 + 0.486853I$ $a = -1.47799 + 0.52228I$ $b = 1.38485 - 0.30163I$	$-6.02464 - 10.31350I$	0
$u = 1.154860 - 0.486853I$ $a = -1.47799 - 0.52228I$ $b = 1.38485 + 0.30163I$	$-6.02464 + 10.31350I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.243416+1.236130I$ $a=\ \ 0.162332-0.004245I$ $b=-0.489603-1.275900I$	$0.85125-10.84920I$	0
$u=-0.243416-1.236130I$ $a=\ \ 0.162332+0.004245I$ $b=-0.489603+1.275900I$	$0.85125+10.84920I$	0
$u=-1.175930+0.472649I$ $a=-0.633389-0.779199I$ $b=\ \ 0.347606-0.779093I$	$-6.23055-2.15767I$	0
$u=-1.175930-0.472649I$ $a=-0.633389+0.779199I$ $b=\ \ 0.347606+0.779093I$	$-6.23055+2.15767I$	0
$u=\ \ 1.214930+0.377226I$ $a=-1.142750+0.184285I$ $b=\ \ 0.341035+1.090410I$	$-2.70208-3.30839I$	0
$u=\ \ 1.214930-0.377226I$ $a=-1.142750-0.184285I$ $b=\ \ 0.341035-1.090410I$	$-2.70208+3.30839I$	0
$u=-1.200470+0.459585I$ $a=-1.089820-0.160696I$ $b=\ \ 0.851364+0.233369I$	$-2.24388+5.89877I$	0
$u=-1.200470-0.459585I$ $a=-1.089820+0.160696I$ $b=\ \ 0.851364-0.233369I$	$-2.24388-5.89877I$	0
$u=-0.593320+1.152030I$ $a=\ \ 0.247734+0.048374I$ $b=\ \ 0.187453+1.138280I$	$4.85118+0.81446I$	0
$u=-0.593320-1.152030I$ $a=\ \ 0.247734-0.048374I$ $b=\ \ 0.187453-1.138280I$	$4.85118-0.81446I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.695203 + 0.103878I$ $a = -2.39103 + 0.60425I$ $b = 0.465075 - 0.827446I$	$0.57404 - 1.64965I$	$-7.09706 + 2.07909I$
$u = 0.695203 - 0.103878I$ $a = -2.39103 - 0.60425I$ $b = 0.465075 + 0.827446I$	$0.57404 + 1.64965I$	$-7.09706 - 2.07909I$
$u = 0.656303 + 0.240252I$ $a = -0.10956 - 1.42423I$ $b = -0.182748 - 1.312790I$	$2.33729 - 4.89796I$	$-3.19840 + 10.75719I$
$u = 0.656303 - 0.240252I$ $a = -0.10956 + 1.42423I$ $b = -0.182748 + 1.312790I$	$2.33729 + 4.89796I$	$-3.19840 - 10.75719I$
$u = -1.30994$ $a = -1.00243$ $b = 0.647346$	-5.83140	0
$u = -1.098340 + 0.736969I$ $a = -1.34001 - 0.54457I$ $b = 0.653792 - 0.759457I$	$-5.90913 + 6.23883I$	0
$u = -1.098340 - 0.736969I$ $a = -1.34001 + 0.54457I$ $b = 0.653792 + 0.759457I$	$-5.90913 - 6.23883I$	0
$u = -0.635484 + 0.127279I$ $a = -3.48529 - 0.08941I$ $b = -0.057611 + 0.532891I$	$-3.86440 + 5.70624I$	$-8.10788 - 2.00819I$
$u = -0.635484 - 0.127279I$ $a = -3.48529 + 0.08941I$ $b = -0.057611 - 0.532891I$	$-3.86440 - 5.70624I$	$-8.10788 + 2.00819I$
$u = 1.332470 + 0.247847I$ $a = -1.007340 + 0.847514I$ $b = 0.891796 - 0.453277I$	$-9.35815 - 2.58044I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.332470 - 0.247847I$ $a = -1.007340 - 0.847514I$ $b = 0.891796 + 0.453277I$	$-9.35815 + 2.58044I$	0
$u = 1.239090 + 0.559867I$ $a = -0.567349 + 0.606895I$ $b = 0.719530 - 0.877837I$	$-5.59330 - 0.95533I$	0
$u = 1.239090 - 0.559867I$ $a = -0.567349 - 0.606895I$ $b = 0.719530 + 0.877837I$	$-5.59330 + 0.95533I$	0
$u = 1.209370 + 0.632518I$ $a = 1.41567 + 0.02861I$ $b = -0.62241 - 1.34712I$	$-0.21837 - 11.40940I$	0
$u = 1.209370 - 0.632518I$ $a = 1.41567 - 0.02861I$ $b = -0.62241 + 1.34712I$	$-0.21837 + 11.40940I$	0
$u = -1.178080 + 0.698481I$ $a = 1.180720 - 0.033401I$ $b = -0.482051 + 1.253940I$	$2.77259 + 5.73769I$	0
$u = -1.178080 - 0.698481I$ $a = 1.180720 + 0.033401I$ $b = -0.482051 - 1.253940I$	$2.77259 - 5.73769I$	0
$u = -0.359604 + 0.513145I$ $a = 1.105950 - 0.461605I$ $b = -0.10619 + 1.59127I$	$2.51053 + 4.14874I$	$-5.33756 - 6.38441I$
$u = -0.359604 - 0.513145I$ $a = 1.105950 + 0.461605I$ $b = -0.10619 - 1.59127I$	$2.51053 - 4.14874I$	$-5.33756 + 6.38441I$
$u = 0.188195 + 0.589028I$ $a = 1.17085 - 1.73055I$ $b = -0.909144 + 0.168813I$	$-3.25055 + 5.97769I$	$-10.01627 - 5.34702I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.188195 - 0.589028I$ $a = 1.17085 + 1.73055I$ $b = -0.909144 - 0.168813I$	$-3.25055 - 5.97769I$	$-10.01627 + 5.34702I$
$u = 0.181391 + 0.540978I$ $a = 0.789144 - 0.658848I$ $b = 0.433458 - 0.123479I$	$-0.74698 - 2.02785I$	$-4.64089 + 2.72591I$
$u = 0.181391 - 0.540978I$ $a = 0.789144 + 0.658848I$ $b = 0.433458 + 0.123479I$	$-0.74698 + 2.02785I$	$-4.64089 - 2.72591I$
$u = 0.45586 + 1.35944I$ $a = 0.146707 + 0.068204I$ $b = -0.341442 + 1.074570I$	$3.67608 + 3.90107I$	0
$u = 0.45586 - 1.35944I$ $a = 0.146707 - 0.068204I$ $b = -0.341442 - 1.074570I$	$3.67608 - 3.90107I$	0
$u = -1.32343 + 0.67031I$ $a = -1.53002 + 0.19530I$ $b = 0.71065 - 1.35618I$	$-2.5744 + 17.5099I$	0
$u = -1.32343 - 0.67031I$ $a = -1.53002 - 0.19530I$ $b = 0.71065 + 1.35618I$	$-2.5744 - 17.5099I$	0
$u = -0.034570 + 0.494786I$ $a = 1.20093 + 1.44391I$ $b = -0.111055 - 0.302643I$	$1.16594 - 1.89895I$	$-3.75763 + 6.23152I$
$u = -0.034570 - 0.494786I$ $a = 1.20093 - 1.44391I$ $b = -0.111055 + 0.302643I$	$1.16594 + 1.89895I$	$-3.75763 - 6.23152I$
$u = 1.32427 + 0.73631I$ $a = -1.300570 - 0.067697I$ $b = 0.573497 + 1.208660I$	$0.67671 - 11.20380I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.32427 - 0.73631I$ $a = -1.300570 + 0.067697I$ $b = 0.573497 - 1.208660I$	$0.67671 + 11.20380I$	0
$u = 0.461263 + 0.018499I$ $a = -0.73651 - 1.21882I$ $b = -0.02599 + 1.55300I$	$2.80824 + 1.36127I$	$-5.48968 + 3.29803I$
$u = 0.461263 - 0.018499I$ $a = -0.73651 + 1.21882I$ $b = -0.02599 - 1.55300I$	$2.80824 - 1.36127I$	$-5.48968 - 3.29803I$
$u = 0.167352 + 0.427245I$ $a = 0.761067 + 1.015440I$ $b = 0.133945 - 1.282940I$	$2.72282 - 1.44940I$	$-5.16116 - 0.05224I$
$u = 0.167352 - 0.427245I$ $a = 0.761067 - 1.015440I$ $b = 0.133945 + 1.282940I$	$2.72282 + 1.44940I$	$-5.16116 + 0.05224I$
$u = 0.379215$ $a = 0.649224$ $b = -0.409798$	-0.736675	-13.9250
$u = -1.62911 + 0.00058I$ $a = -0.179116 - 0.487894I$ $b = -0.011057 + 0.713112I$	$-5.05252 + 1.36520I$	0
$u = -1.62911 - 0.00058I$ $a = -0.179116 + 0.487894I$ $b = -0.011057 - 0.713112I$	$-5.05252 - 1.36520I$	0
$u = -0.288297 + 0.213692I$ $a = 0.03708 + 1.79806I$ $b = -0.45259 - 1.47014I$	$2.55253 - 4.41767I$	$-1.66349 + 3.27220I$
$u = -0.288297 - 0.213692I$ $a = 0.03708 - 1.79806I$ $b = -0.45259 + 1.47014I$	$2.55253 + 4.41767I$	$-1.66349 - 3.27220I$

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$1.67230+0.27921I$		
$a=$	$-0.126637+0.712774I$	$-5.78137+4.82781I$	0
$b=$	$0.280703-0.948609I$		
$u=$	$1.67230-0.27921I$		
$a=$	$-0.126637-0.712774I$	$-5.78137-4.82781I$	0
$b=$	$0.280703+0.948609I$		

II.

$\boldsymbol{I_2^u = \langle 21u^{19}-10u^{18}+\cdots+b+23,\ 5u^{19}-6u^{18}+\cdots+a+8,\ u^{20}-6u^{18}+\cdots+u+1\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -5u^{19} + 6u^{18} + \cdots + 6u - 8 \\ -21u^{19} + 10u^{18} + \cdots + 19u - 23 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} 20u^{19} - 6u^{18} + \cdots - 18u + 21 \\ -7u^{19} + 5u^{18} + \cdots + 7u - 6 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -26u^{19} + 16u^{18} + \cdots + 25u - 31 \\ -21u^{19} + 10u^{18} + \cdots + 19u - 23 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^{18} + 5u^{16} + \cdots - 5u^2 + u \\ 12u^{19} - 10u^{18} + \cdots - 10u + 15 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -5u^{19} + 5u^{18} + \cdots + 3u - 10 \\ 9u^{19} - 7u^{18} + \cdots - 7u + 11 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -4u^{19} + 21u^{17} + \cdots + 5u^2 + 4u \\ -21u^{19} + 10u^{18} + \cdots + 15u - 22 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 27u^{19} - 21u^{18} + \cdots - 20u + 42 \\ 27u^{19} - 16u^{18} + \cdots - 24u + 34 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 27u^{19} - 21u^{18} + \cdots - 20u + 42 \\ 27u^{19} - 16u^{18} + \cdots - 24u + 34 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes

$= 19u^{19} - 16u^{18} - 101u^{17} + 108u^{16} + 144u^{15} - 213u^{14} + 83u^{13} - 4u^{12} - 327u^{11} + 448u^{10} + 123u^9 - 374u^8 + 168u^7 - 120u^6 - 81u^5 + 241u^4 + 25u^3 - 123u^2 - 4u + 16$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{20} - 5u^{18} + \cdots - 2u + 1$
c_2	$u^{20} + 10u^{19} + \cdots + 12u + 1$
c_3	$u^{20} - 6u^{18} + \cdots + u + 1$
c_4	$u^{20} + 2u^{19} + \cdots + 8u^2 + 1$
c_5	$u^{20} - 4u^{19} + \cdots - 4u + 1$
c_6	$u^{20} - 5u^{18} + \cdots + 2u + 1$
c_7	$u^{20} + 4u^{19} + \cdots + 4u + 1$
c_8	$u^{20} - 6u^{18} + \cdots - u + 1$
c_9	$u^{20} + 4u^{17} + \cdots + u + 1$
c_{10}	$u^{20} - 4u^{19} + \cdots - 4u + 1$
c_{11}	$u^{20} - 2u^{19} + \cdots + 8u^2 + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{20} - 10y^{19} + \cdots - 12y + 1$
c_2	$y^{20} + 10y^{19} + \cdots + 4y + 1$
c_3, c_8	$y^{20} - 12y^{19} + \cdots - 11y + 1$
c_4, c_{11}	$y^{20} + 18y^{19} + \cdots + 16y + 1$
c_5	$y^{20} - 2y^{19} + \cdots + 8y + 1$
c_7, c_{10}	$y^{20} + 8y^{19} + \cdots + 12y + 1$
c_9	$y^{20} - 8y^{17} + \cdots + 17y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.020502 + 1.009610I$ $a = 0.239739 - 0.075557I$ $b = -0.111980 - 1.179690I$	$4.05337 - 2.46535I$	$-3.03812 + 2.80384I$
$u = 0.020502 - 1.009610I$ $a = 0.239739 + 0.075557I$ $b = -0.111980 + 1.179690I$	$4.05337 + 2.46535I$	$-3.03812 - 2.80384I$
$u = -0.034514 + 1.030530I$ $a = 0.417470 - 1.272790I$ $b = -0.117330 - 0.725388I$	$2.26277 + 1.45555I$	$6.55534 - 4.54077I$
$u = -0.034514 - 1.030530I$ $a = 0.417470 + 1.272790I$ $b = -0.117330 + 0.725388I$	$2.26277 - 1.45555I$	$6.55534 + 4.54077I$
$u = 0.834862 + 0.376425I$ $a = -2.85203 + 0.33582I$ $b = 0.473306 + 0.639860I$	$-4.11080 - 6.47940I$	$-11.0697 + 10.5057I$
$u = 0.834862 - 0.376425I$ $a = -2.85203 - 0.33582I$ $b = 0.473306 - 0.639860I$	$-4.11080 + 6.47940I$	$-11.0697 - 10.5057I$
$u = 0.989760 + 0.468800I$ $a = 1.42255 + 0.75415I$ $b = -0.46915 - 1.35496I$	$1.31973 - 1.14762I$	$-5.60070 + 2.26738I$
$u = 0.989760 - 0.468800I$ $a = 1.42255 - 0.75415I$ $b = -0.46915 + 1.35496I$	$1.31973 + 1.14762I$	$-5.60070 - 2.26738I$
$u = 0.739186 + 0.254368I$ $a = 0.812536 + 0.136562I$ $b = -0.11506 - 1.54761I$	$2.49233 - 2.11946I$	$-10.71875 + 4.52605I$
$u = 0.739186 - 0.254368I$ $a = 0.812536 - 0.136562I$ $b = -0.11506 + 1.54761I$	$2.49233 + 2.11946I$	$-10.71875 - 4.52605I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.197310+0.297467I$ $a=-1.51506+1.09231I$ $b=\ \ 0.456437-1.060240I$	$-0.69775+5.95580I$	$-9.18910-5.63264I$
$u=-1.197310-0.297467I$ $a=-1.51506-1.09231I$ $b=\ \ 0.456437+1.060240I$	$-0.69775-5.95580I$	$-9.18910+5.63264I$
$u=-0.596304+0.330171I$ $a=\ \ 2.53707-0.01833I$ $b=-0.918717+0.754673I$	$-1.49168+3.77521I$	$-5.50553-6.05932I$
$u=-0.596304-0.330171I$ $a=\ \ 2.53707+0.01833I$ $b=-0.918717-0.754673I$	$-1.49168-3.77521I$	$-5.50553+6.05932I$
$u=-0.677664+0.019148I$ $a=\ \ 0.768972-0.409121I$ $b=-0.36367-1.45018I$	$1.86097-4.40401I$	$-13.93839+1.85189I$
$u=-0.677664-0.019148I$ $a=\ \ 0.768972+0.409121I$ $b=-0.36367+1.45018I$	$1.86097+4.40401I$	$-13.93839-1.85189I$
$u=\ \ 1.42090+0.17879I$ $a=-0.406122+0.146508I$ $b=-0.189379+0.489956I$	$-6.67062+3.74046I$	$-13.8287-3.4251I$
$u=\ \ 1.42090-0.17879I$ $a=-0.406122-0.146508I$ $b=-0.189379-0.489956I$	$-6.67062-3.74046I$	$-13.8287+3.4251I$
$u=-1.49942+0.05369I$ $a=-0.425122-0.103178I$ $b=\ \ 0.355541+0.485353I$	$-5.59805-1.77453I$	$-16.1663+4.7993I$
$u=-1.49942-0.05369I$ $a=-0.425122+0.103178I$ $b=\ \ 0.355541-0.485353I$	$-5.59805+1.77453I$	$-16.1663-4.7993I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{20}-5u^{18}+\cdots-2u+1)(u^{92}-u^{91}+\cdots+54u-143)$
c_2	$(u^{20}+10u^{19}+\cdots+12u+1)(u^{92}+41u^{91}+\cdots+295208u+20449)$
c_3	$(u^{20}-6u^{18}+\cdots+u+1)(u^{92}-u^{91}+\cdots-u-1)$
c_4	$(u^{20}+2u^{19}+\cdots+8u^2+1)(u^{92}-3u^{91}+\cdots+442u-347)$
c_5	$(u^{20}-4u^{19}+\cdots-4u+1)(u^{92}-3u^{91}+\cdots+678u+68)$
c_6	$(u^{20}-5u^{18}+\cdots+2u+1)(u^{92}-u^{91}+\cdots+54u-143)$
c_7	$(u^{20}+4u^{19}+\cdots+4u+1)(u^{92}+3u^{91}+\cdots+734u+79)$
c_8	$(u^{20}-6u^{18}+\cdots-u+1)(u^{92}-u^{91}+\cdots-u-1)$
c_9	$(u^{20}+4u^{17}+\cdots+u+1)(u^{92}+u^{91}+\cdots-3505u-387)$
c_{10}	$(u^{20}-4u^{19}+\cdots-4u+1)(u^{92}+3u^{91}+\cdots+734u+79)$
c_{11}	$(u^{20}-2u^{19}+\cdots+8u^2+1)(u^{92}-3u^{91}+\cdots+442u-347)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$(y^{20} - 10y^{19} + \cdots - 12y + 1)(y^{92} - 41y^{91} + \cdots - 295208y + 20449)$
c_2	$(y^{20} + 10y^{19} + \cdots + 4y + 1)$ $\cdot (y^{92} + 31y^{91} + \cdots - 131051768y + 418161601)$
c_3, c_8	$(y^{20} - 12y^{19} + \cdots - 11y + 1)(y^{92} - 51y^{91} + \cdots - 27y + 1)$
c_4, c_{11}	$(y^{20} + 18y^{19} + \cdots + 16y + 1)$ $\cdot (y^{92} + 59y^{91} + \cdots + 3735452y + 120409)$
c_5	$(y^{20} - 2y^{19} + \cdots + 8y + 1)(y^{92} - 17y^{91} + \cdots + 950500y + 4624)$
c_7, c_{10}	$(y^{20} + 8y^{19} + \cdots + 12y + 1)(y^{92} + 49y^{91} + \cdots - 26204y + 6241)$
c_9	$(y^{20} - 8y^{17} + \cdots + 17y + 1)(y^{92} - 11y^{91} + \cdots - 5497819y + 149769)$