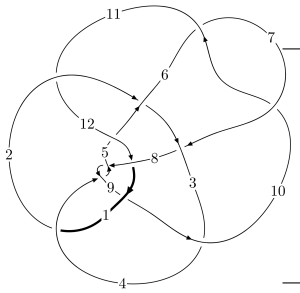
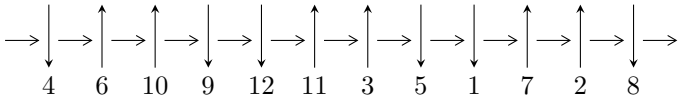
$12a_{0960}$ $(K12a_{0960})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$$\underset{c_6}{6,11} \to \underset{c_7}{3,7} \to \underset{c_2}{8} \to \underset{c_{11}}{2} \to \underset{c_5}{12} \to \underset{c_{10}}{5} \to \underset{c_3}{10} \to \underset{c_1}{4} \to \underset{c_9}{1} \to 9 \twoheadrightarrow c_4, c_8, c_{12}$$

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

$$\begin{aligned}
I_1^u &= \langle 6.32511 \times 10^{1035} u^{175} + 4.24899 \times 10^{1036} u^{174} + \cdots + 4.69972 \times 10^{1036} b + 3.27998 \times 10^{1038}, \\
&\quad 8.00347 \times 10^{1038} u^{175} + 5.25942 \times 10^{1039} u^{174} + \cdots + 4.41303 \times 10^{1039} a + 3.29768 \times 10^{1041}, \\
&\quad u^{176} + 6u^{175} + \cdots - 5650u + 939 \rangle \\
I_2^u &= \langle -1.39268 \times 10^{28} u^{33} + 3.61198 \times 10^{28} u^{32} + \cdots + 5.54335 \times 10^{28} b + 8.01444 \times 10^{28}, \\
&\quad - 1.75682 \times 10^{28} u^{33} + 3.90770 \times 10^{28} u^{32} + \cdots + 5.54335 \times 10^{28} a - 1.15604 \times 10^{29}, \\
&\quad u^{34} + 16u^{32} + \cdots - 15u + 1 \rangle \\
I_3^u &= \langle b + u,\ a + u + 1,\ u^2 + u + 1 \rangle
\end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 212 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. $\boldsymbol{I_1^u = \langle 6.33 \times 10^{1035} u^{175} + 4.25 \times 10^{1036} u^{174} + \cdots + 4.70 \times 10^{1036} b + 3.28 \times 10^{1038},\ 8.00 \times 10^{1038} u^{175} + 5.26 \times 10^{1039} u^{174} + \cdots + 4.41 \times 10^{1039} a + 3.30 \times 10^{1041},\ u^{176} + 6u^{175} + \cdots - 5650u + 939 \rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.181360u^{175} - 1.19179u^{174} + \cdots + 305.464u - 74.7260 \\ -0.134585u^{175} - 0.904096u^{174} + \cdots + 323.722u - 69.7909 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.00219584u^{175} - 0.100916u^{174} + \cdots + 398.465u - 64.6077 \\ 0.0390647u^{175} + 0.184706u^{174} + \cdots + 246.044u - 35.5061 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.0467749u^{175} - 0.287698u^{174} + \cdots - 18.2581u - 4.93505 \\ -0.134585u^{175} - 0.904096u^{174} + \cdots + 323.722u - 69.7909 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.00720057u^{175} + 0.0727156u^{174} + \cdots - 80.4218u + 10.4860 \\ -0.171963u^{175} - 0.989112u^{174} + \cdots - 298.311u + 29.0343 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.111561u^{175} + 0.549967u^{174} + \cdots + 607.097u - 85.9822 \\ -0.319703u^{175} - 1.89062u^{174} + \cdots - 365.057u + 23.6912 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.0710434u^{175} - 0.435873u^{174} + \cdots - 20.1901u - 7.61312 \\ -0.0970434u^{175} - 0.650749u^{174} + \cdots + 221.741u - 48.6175 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.0186189u^{175} + 0.0662415u^{174} + \cdots + 232.284u - 37.5107 \\ -0.112061u^{175} - 0.612880u^{174} + \cdots - 344.134u + 45.3503 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.0861891u^{175} + 0.595903u^{174} + \cdots - 265.966u + 55.0977 \\ 0.0391470u^{175} - 0.195411u^{174} + \cdots + 1864.59u - 304.617 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 1.92136u^{175} + 12.8967u^{174} + \cdots - 4562.99u + 988.525$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{176}+7u^{175}+\cdots+69156u+17323$
c_2	$4(4u^{176}-42u^{175}+\cdots+4u+3)$
c_3	$4(4u^{176}+18u^{175}+\cdots+1.69296\times10^{9}u+1.02369\times10^{8})$
c_4, c_8	$u^{176}+6u^{175}+\cdots-5650u+939$
c_5	$4(4u^{176}-18u^{175}+\cdots-1.69296\times10^{9}u+1.02369\times10^{8})$
c_6, c_{10}	$u^{176}-6u^{175}+\cdots+5650u+939$
c_7	$u^{176}+u^{175}+\cdots-12001832u+1637744$
c_9	$4(4u^{176}+42u^{175}+\cdots-4u+3)$
c_{11}	$u^{176}-7u^{175}+\cdots-69156u+17323$
c_{12}	$u^{176}-u^{175}+\cdots+12001832u+1637744$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_{11}	$y^{176} + 11y^{175} + \cdots + 18368043448y + 300086329$
c_2, c_9	$16(16y^{176} + 164y^{175} + \cdots + 632y + 9)$
c_3, c_5	$16(16y^{176} + 1348y^{175} + \cdots + 6.24455 \times 10^{17}y + 1.04794 \times 10^{16})$
c_4, c_6, c_8 c_{10}	$y^{176} + 134y^{175} + \cdots + 23450330y + 881721$
c_7, c_{12}	$y^{176} + 51y^{175} + \cdots + 119113228533312y + 2682205409536$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.268225+0.962582I$ $a=\ \ 0.20659+2.76799I$ $b=-0.264729+0.026201I$	$2.66927-10.63920I$	0
$u=-0.268225-0.962582I$ $a=\ \ 0.20659-2.76799I$ $b=-0.264729-0.026201I$	$2.66927+10.63920I$	0
$u=-0.639498+0.779579I$ $a=-0.914982-0.304342I$ $b=\ \ 0.645237-0.266582I$	$0.73655-2.57695I$	0
$u=-0.639498-0.779579I$ $a=-0.914982+0.304342I$ $b=\ \ 0.645237+0.266582I$	$0.73655+2.57695I$	0
$u=-0.403534+0.894931I$ $a=-0.490359-1.134190I$ $b=\ \ 0.150323-0.171101I$	$0.36799-1.98151I$	0
$u=-0.403534-0.894931I$ $a=-0.490359+1.134190I$ $b=\ \ 0.150323+0.171101I$	$0.36799+1.98151I$	0
$u=\ \ 0.024715+0.972378I$ $a=-1.005110-0.313765I$ $b=\ \ 1.063340-0.252710I$	$4.15953-4.46103I$	0
$u=\ \ 0.024715-0.972378I$ $a=-1.005110+0.313765I$ $b=\ \ 1.063340+0.252710I$	$4.15953+4.46103I$	0
$u=-0.098010+1.027020I$ $a=-1.36993-1.20050I$ $b=-1.62456-0.79093I$	$0.714090-0.355524I$	0
$u=-0.098010-1.027020I$ $a=-1.36993+1.20050I$ $b=-1.62456+0.79093I$	$0.714090+0.355524I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.644866 + 0.808232I$ $a = \quad 0.648376 - 0.508937I$ $b = -0.917957 - 0.040537I$	$5.16399 + 2.60014I$	0
$u = \quad 0.644866 - 0.808232I$ $a = \quad 0.648376 + 0.508937I$ $b = -0.917957 + 0.040537I$	$5.16399 - 2.60014I$	0
$u = \quad 0.445760 + 0.834063I$ $a = \quad 0.33232 - 1.43020I$ $b = -0.592928 - 0.020233I$	$4.91221 + 2.00569I$	0
$u = \quad 0.445760 - 0.834063I$ $a = \quad 0.33232 + 1.43020I$ $b = -0.592928 + 0.020233I$	$4.91221 - 2.00569I$	0
$u = -1.035470 + 0.205784I$ $a = -0.078531 - 0.548387I$ $b = \quad 0.803386 + 0.258956I$	$5.06643 + 0.78586I$	0
$u = -1.035470 - 0.205784I$ $a = -0.078531 + 0.548387I$ $b = \quad 0.803386 - 0.258956I$	$5.06643 - 0.78586I$	0
$u = -0.376648 + 0.863700I$ $a = -1.31412 - 0.99638I$ $b = -0.776206 - 0.933078I$	$0.557762 - 0.871550I$	0
$u = -0.376648 - 0.863700I$ $a = -1.31412 + 0.99638I$ $b = -0.776206 + 0.933078I$	$0.557762 + 0.871550I$	0
$u = -0.783561 + 0.519734I$ $a = -0.283303 - 0.093269I$ $b = \quad 1.072940 - 0.564679I$	$3.57396 - 6.11171I$	0
$u = -0.783561 - 0.519734I$ $a = -0.283303 + 0.093269I$ $b = \quad 1.072940 + 0.564679I$	$3.57396 + 6.11171I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.060870+0.134806I$ $a=-0.091627+0.411572I$ $b=-0.939105+0.646913I$	$3.81603-2.52639I$	0
$u=-1.060870-0.134806I$ $a=-0.091627-0.411572I$ $b=-0.939105-0.646913I$	$3.81603+2.52639I$	0
$u=0.267369+1.038610I$ $a=0.13106-1.76673I$ $b=-0.93471-1.32000I$	$-1.21991+3.70716I$	0
$u=0.267369-1.038610I$ $a=0.13106+1.76673I$ $b=-0.93471+1.32000I$	$-1.21991-3.70716I$	0
$u=0.064822+1.096500I$ $a=-0.123853-0.899928I$ $b=-1.44021-0.54781I$	$-1.86863+2.42778I$	0
$u=0.064822-1.096500I$ $a=-0.123853+0.899928I$ $b=-1.44021+0.54781I$	$-1.86863-2.42778I$	0
$u=0.934012+0.592825I$ $a=0.733403+0.144804I$ $b=-0.694203-0.400242I$	$3.48356+4.14986I$	0
$u=0.934012-0.592825I$ $a=0.733403-0.144804I$ $b=-0.694203+0.400242I$	$3.48356-4.14986I$	0
$u=-0.879145+0.157980I$ $a=-0.391182+0.079087I$ $b=-0.965060-0.533810I$	$2.95882+1.25298I$	0
$u=-0.879145-0.157980I$ $a=-0.391182-0.079087I$ $b=-0.965060+0.533810I$	$2.95882-1.25298I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.026972+1.111890I$ $a=\ \ 0.25218-1.81916I$ $b=-0.913965-0.993863I$	$-2.35849+1.91634I$	0
$u=-0.026972-1.111890I$ $a=\ \ 0.25218+1.81916I$ $b=-0.913965+0.993863I$	$-2.35849-1.91634I$	0
$u=-0.101098+1.112320I$ $a=\ \ 0.747997-1.118490I$ $b=\ \ 1.92440-0.61397I$	$-3.38648I$	0
$u=-0.101098-1.112320I$ $a=\ \ 0.747997+1.118490I$ $b=\ \ 1.92440+0.61397I$	$3.38648I$	0
$u=\ \ 0.830377+0.295226I$ $a=\ \ 0.534674+0.299283I$ $b=\ \ 0.997971-0.739870I$	$7.09688-7.79945I$	0
$u=\ \ 0.830377-0.295226I$ $a=\ \ 0.534674-0.299283I$ $b=\ \ 0.997971+0.739870I$	$7.09688+7.79945I$	0
$u=\ \ 0.677700+0.890752I$ $a=\ \ 0.315340-0.670034I$ $b=-0.069785+0.255534I$	$2.35849+1.91634I$	0
$u=\ \ 0.677700-0.890752I$ $a=\ \ 0.315340+0.670034I$ $b=-0.069785-0.255534I$	$2.35849-1.91634I$	0
$u=\ \ 0.023366+0.878538I$ $a=-0.844146+0.914953I$ $b=-0.042200+0.652552I$	$-1.21414-1.52821I$	0
$u=\ \ 0.023366-0.878538I$ $a=-0.844146-0.914953I$ $b=-0.042200-0.652552I$	$-1.21414+1.52821I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.470352 + 1.021550I$ $a = -0.817745 + 0.675912I$ $b = -0.352475 + 1.104280I$	$-0.557762 - 0.871550I$	0
$u = 0.470352 - 1.021550I$ $a = -0.817745 - 0.675912I$ $b = -0.352475 - 1.104280I$	$-0.557762 + 0.871550I$	0
$u = 0.114042 + 0.860315I$ $a = 1.72126 + 1.60013I$ $b = 0.335767 + 0.247262I$	$4.26370 + 5.24171I$	0
$u = 0.114042 - 0.860315I$ $a = 1.72126 - 1.60013I$ $b = 0.335767 - 0.247262I$	$4.26370 - 5.24171I$	0
$u = 1.124160 + 0.135421I$ $a = 0.0183299 + 0.1167330I$ $b = 0.897822 + 0.718916I$	$9.56721I$	0
$u = 1.124160 - 0.135421I$ $a = 0.0183299 - 0.1167330I$ $b = 0.897822 - 0.718916I$	$-9.56721I$	0
$u = 1.134820 + 0.012898I$ $a = 0.145238 - 0.137047I$ $b = -0.800713 + 0.819560I$	$4.74657 - 5.78864I$	0
$u = 1.134820 - 0.012898I$ $a = 0.145238 + 0.137047I$ $b = -0.800713 - 0.819560I$	$4.74657 + 5.78864I$	0
$u = 0.211037 + 1.122750I$ $a = 0.78851 + 1.92789I$ $b = 0.059339 + 0.307011I$	$-3.57396 + 6.11171I$	0
$u = 0.211037 - 1.122750I$ $a = 0.78851 - 1.92789I$ $b = 0.059339 - 0.307011I$	$-3.57396 - 6.11171I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.001013+1.148490I$ $a=-0.98183+2.37273I$ $b=-1.50663+2.73217I$	$1.35989I$	0
$u=-0.001013-1.148490I$ $a=-0.98183-2.37273I$ $b=-1.50663-2.73217I$	$-1.35989I$	0
$u=-0.808811+0.251963I$ $a=-0.374053-0.160347I$ $b=0.972817+0.672275I$	$5.82720+2.39611I$	0
$u=-0.808811-0.251963I$ $a=-0.374053+0.160347I$ $b=0.972817-0.672275I$	$5.82720-2.39611I$	0
$u=-1.140450+0.185524I$ $a=-0.1273220+0.0056730I$ $b=0.757413-0.581272I$	$1.72222-4.16466I$	0
$u=-1.140450-0.185524I$ $a=-0.1273220-0.0056730I$ $b=0.757413+0.581272I$	$1.72222+4.16466I$	0
$u=0.148981+1.152230I$ $a=-0.03835-2.55744I$ $b=-0.161877-1.346620I$	$-3.48356+4.14986I$	0
$u=0.148981-1.152230I$ $a=-0.03835+2.55744I$ $b=-0.161877+1.346620I$	$-3.48356-4.14986I$	0
$u=0.066521+1.167430I$ $a=-1.20052+2.06543I$ $b=0.574828+0.697169I$	$0.34239+9.94779I$	0
$u=0.066521-1.167430I$ $a=-1.20052-2.06543I$ $b=0.574828-0.697169I$	$0.34239-9.94779I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.139493 + 1.165120I$ $a = 1.03445 - 1.79000I$ $b = 1.37499 - 1.73173I$	$-4.74657 + 5.78864I$	0
$u = 0.139493 - 1.165120I$ $a = 1.03445 + 1.79000I$ $b = 1.37499 + 1.73173I$	$-4.74657 - 5.78864I$	0
$u = -1.168010 + 0.123906I$ $a = 0.0472676 + 0.0869947I$ $b = -0.932006 + 0.765765I$	$4.8150 - 15.2799I$	0
$u = -1.168010 - 0.123906I$ $a = 0.0472676 - 0.0869947I$ $b = -0.932006 - 0.765765I$	$4.8150 + 15.2799I$	0
$u = -0.444112 + 1.106260I$ $a = -0.248358 - 1.101280I$ $b = 1.100570 - 0.726079I$	$2.54244 - 6.02885I$	0
$u = -0.444112 - 1.106260I$ $a = -0.248358 + 1.101280I$ $b = 1.100570 + 0.726079I$	$2.54244 + 6.02885I$	0
$u = 0.369330 + 1.135860I$ $a = 0.38784 + 1.87651I$ $b = 1.15621 + 1.18315I$	$5.28153 - 0.05412I$	0
$u = 0.369330 - 1.135860I$ $a = 0.38784 - 1.87651I$ $b = 1.15621 - 1.18315I$	$5.28153 + 0.05412I$	0
$u = 0.421997 + 1.117810I$ $a = 0.14744 + 1.88223I$ $b = 1.19242 + 1.46359I$	$4.55064 + 12.36270I$	0
$u = 0.421997 - 1.117810I$ $a = 0.14744 - 1.88223I$ $b = 1.19242 - 1.46359I$	$4.55064 - 12.36270I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.086297+1.207990I$ $a=\ \ 0.091655+1.206830I$ $b=\ \ 0.786546+1.005650I$	$-4.06814-2.11224I$	0
$u=-0.086297-1.207990I$ $a=\ \ 0.091655-1.206830I$ $b=\ \ 0.786546-1.005650I$	$-4.06814+2.11224I$	0
$u=-0.015094+1.211720I$ $a=\ \ 0.52307+2.43209I$ $b=-0.290438+0.909069I$	$-5.50478-3.73249I$	0
$u=-0.015094-1.211720I$ $a=\ \ 0.52307-2.43209I$ $b=-0.290438-0.909069I$	$-5.50478+3.73249I$	0
$u=\ \ 0.197595+1.201170I$ $a=\ \ 0.612317+0.083975I$ $b=-0.634411-0.166502I$	$-2.54244+6.02885I$	0
$u=\ \ 0.197595-1.201170I$ $a=\ \ 0.612317-0.083975I$ $b=-0.634411+0.166502I$	$-2.54244-6.02885I$	0
$u=-0.414859+1.144780I$ $a=-0.21956-1.83248I$ $b=\ \ 0.964642-0.861682I$	$3.06057-6.86382I$	0
$u=-0.414859-1.144780I$ $a=-0.21956+1.83248I$ $b=\ \ 0.964642+0.861682I$	$3.06057+6.86382I$	0
$u=-0.548999+0.556766I$ $a=\ \ 1.63812-0.27825I$ $b=-0.893248-0.015748I$	$3.68925+7.20981I$	0
$u=-0.548999-0.556766I$ $a=\ \ 1.63812+0.27825I$ $b=-0.893248+0.015748I$	$3.68925-7.20981I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.559022+1.082950I$ $a=-0.452200+0.415093I$ $b=-0.902520+0.318618I$	$0.94606-3.28550I$	0
$u=-0.559022-1.082950I$ $a=-0.452200-0.415093I$ $b=-0.902520-0.318618I$	$0.94606+3.28550I$	0
$u=1.192480+0.266165I$ $a=-0.151171+0.149246I$ $b=0.182895+0.569084I$	$-2.95882-1.25298I$	0
$u=1.192480-0.266165I$ $a=-0.151171-0.149246I$ $b=0.182895-0.569084I$	$-2.95882+1.25298I$	0
$u=-0.165655+1.212300I$ $a=-0.87511-1.65535I$ $b=-1.24141-1.76725I$	$-0.48745-11.58140I$	0
$u=-0.165655-1.212300I$ $a=-0.87511+1.65535I$ $b=-1.24141+1.76725I$	$-0.48745+11.58140I$	0
$u=-0.443321+1.140980I$ $a=-0.23601+1.75950I$ $b=-1.07486+1.34830I$	$-0.02143-6.02789I$	0
$u=-0.443321-1.140980I$ $a=-0.23601-1.75950I$ $b=-1.07486-1.34830I$	$-0.02143+6.02789I$	0
$u=-0.739507+0.139480I$ $a=0.665418+0.752387I$ $b=-0.539133+0.873326I$	$2.54480-3.04371I$	0
$u=-0.739507-0.139480I$ $a=0.665418-0.752387I$ $b=-0.539133-0.873326I$	$2.54480+3.04371I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.719017 + 0.214989I$ $a = 0.242930 + 0.222080I$ $b = 1.195860 - 0.504125I$	$8.09100 + 4.09197I$	0
$u = 0.719017 - 0.214989I$ $a = 0.242930 - 0.222080I$ $b = 1.195860 + 0.504125I$	$8.09100 - 4.09197I$	0
$u = -0.008982 + 1.252700I$ $a = -0.01572 + 1.70264I$ $b = 0.52790 + 1.35832I$	$-4.91221 - 2.00569I$	0
$u = -0.008982 - 1.252700I$ $a = -0.01572 - 1.70264I$ $b = 0.52790 - 1.35832I$	$-4.91221 + 2.00569I$	0
$u = -0.050191 + 1.253150I$ $a = -0.31549 + 2.02079I$ $b = -0.52038 + 1.58277I$	$-5.16399 - 2.60014I$	0
$u = -0.050191 - 1.253150I$ $a = -0.31549 - 2.02079I$ $b = -0.52038 - 1.58277I$	$-5.16399 + 2.60014I$	0
$u = 0.014996 + 1.259280I$ $a = 0.901178 - 0.728416I$ $b = 1.65392 - 0.62982I$	$-5.82720 - 2.39611I$	0
$u = 0.014996 - 1.259280I$ $a = 0.901178 + 0.728416I$ $b = 1.65392 + 0.62982I$	$-5.82720 + 2.39611I$	0
$u = -0.028980 + 1.259110I$ $a = -1.225120 - 0.576085I$ $b = 0.134720 - 0.176441I$	$-5.06643 - 0.78586I$	0
$u = -0.028980 - 1.259110I$ $a = -1.225120 + 0.576085I$ $b = 0.134720 + 0.176441I$	$-5.06643 + 0.78586I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.644260+0.328994I$ $a=-0.429477+0.062215I$ $b=-0.536507+0.346434I$	$1.21414-1.52821I$	0
$u=-0.644260-0.328994I$ $a=-0.429477-0.062215I$ $b=-0.536507-0.346434I$	$1.21414+1.52821I$	0
$u=1.208800+0.427166I$ $a=0.140690-0.134710I$ $b=-0.914320-0.303691I$	$5.50478+3.73249I$	0
$u=1.208800-0.427166I$ $a=0.140690+0.134710I$ $b=-0.914320+0.303691I$	$5.50478-3.73249I$	0
$u=-1.316070+0.026205I$ $a=0.1041590-0.0131460I$ $b=0.147484+0.679159I$	$0.02143+6.02789I$	0
$u=-1.316070-0.026205I$ $a=0.1041590+0.0131460I$ $b=0.147484-0.679159I$	$0.02143-6.02789I$	0
$u=0.647711+0.147955I$ $a=0.320722-0.012185I$ $b=-1.007320-0.709967I$	$1.10536+3.47391I$	0
$u=0.647711-0.147955I$ $a=0.320722+0.012185I$ $b=-1.007320+0.709967I$	$1.10536-3.47391I$	0
$u=0.105534+1.332540I$ $a=-0.594468-0.813288I$ $b=-1.52657-0.75402I$	$-3.06057+6.86382I$	0
$u=0.105534-1.332540I$ $a=-0.594468+0.813288I$ $b=-1.52657+0.75402I$	$-3.06057-6.86382I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.427825+1.316160I$ $a=\ \ 0.38324+1.66999I$ $b=-0.706144+0.915701I$	$-1.82065-7.38526I$	0
$u=-0.427825-1.316160I$ $a=\ \ 0.38324-1.66999I$ $b=-0.706144-0.915701I$	$-1.82065+7.38526I$	0
$u=\ \ 0.156943+1.389100I$ $a=-0.102336+0.952588I$ $b=\ \ 0.123164+1.245690I$	$-0.714090-0.355524I$	0
$u=\ \ 0.156943-1.389100I$ $a=-0.102336-0.952588I$ $b=\ \ 0.123164-1.245690I$	$-0.714090+0.355524I$	0
$u=\ \ 0.339218+1.364040I$ $a=-0.34615-1.73098I$ $b=-1.19913-1.23564I$	$-3.68925+7.20981I$	0
$u=\ \ 0.339218-1.364040I$ $a=-0.34615+1.73098I$ $b=-1.19913+1.23564I$	$-3.68925-7.20981I$	0
$u=\ \ 0.262923+1.386140I$ $a=\ \ 0.20141+1.42447I$ $b=\ \ 0.332413+1.243570I$	$-4.15953+4.46103I$	0
$u=\ \ 0.262923-1.386140I$ $a=\ \ 0.20141-1.42447I$ $b=\ \ 0.332413-1.243570I$	$-4.15953-4.46103I$	0
$u=\ \ 0.267050+0.498176I$ $a=-2.04798-1.18116I$ $b=-1.130150+0.267801I$	$-0.970114I$	0
$u=\ \ 0.267050-0.498176I$ $a=-2.04798+1.18116I$ $b=-1.130150-0.267801I$	$0.970114I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.60222+1.31257I$ $a=-0.370011-0.381225I$ $b=\ \ 0.214141-0.318884I$	$-0.94606-3.28550I$	0
$u=-0.60222-1.31257I$ $a=-0.370011+0.381225I$ $b=\ \ 0.214141+0.318884I$	$-0.94606+3.28550I$	0
$u=-0.33879+1.41609I$ $a=-0.214566+1.351230I$ $b=-0.688245+1.199240I$	$-4.26370-5.24171I$	0
$u=-0.33879-1.41609I$ $a=-0.214566-1.351230I$ $b=-0.688245-1.199240I$	$-4.26370+5.24171I$	0
$u=\ \ 0.52718+1.35767I$ $a=\ \ 0.05036-1.46286I$ $b=-1.19936-1.17419I$	$0.48745+11.58140I$	0
$u=\ \ 0.52718-1.35767I$ $a=\ \ 0.05036+1.46286I$ $b=-1.19936+1.17419I$	$0.48745-11.58140I$	0
$u=\ \ 0.45386+1.38998I$ $a=-0.188177+1.242670I$ $b=\ \ 0.742091+1.006080I$	$-8.09100+4.09197I$	0
$u=\ \ 0.45386-1.38998I$ $a=-0.188177-1.242670I$ $b=\ \ 0.742091-1.006080I$	$-8.09100-4.09197I$	0
$u=-0.49574+1.38277I$ $a=-0.09816+1.70669I$ $b=-0.94267+1.16304I$	$-0.88974-8.03757I$	0
$u=-0.49574-1.38277I$ $a=-0.09816-1.70669I$ $b=-0.94267-1.16304I$	$-0.88974+8.03757I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.374110+0.371732I$ $a=-0.07462-1.91563I$ $b=\ 0.226157+0.583762I$	$4.06814+2.11224I$	$5.75687+0.I$
$u=-0.374110-0.371732I$ $a=-0.07462+1.91563I$ $b=\ 0.226157-0.583762I$	$4.06814-2.11224I$	$5.75687+0.I$
$u=\ 0.439715+0.258267I$ $a=-1.39236-1.43175I$ $b=\ 0.792387-0.176904I$	$-1.10536-3.47391I$	$0.+6.63568I$
$u=\ 0.439715-0.258267I$ $a=-1.39236+1.43175I$ $b=\ 0.792387+0.176904I$	$-1.10536+3.47391I$	$0.-6.63568I$
$u=\ 0.50475+1.40586I$ $a=\ 0.10336+1.56038I$ $b=\ 1.11989+1.18585I$	$-4.8150+15.2799I$	0
$u=\ 0.50475-1.40586I$ $a=\ 0.10336-1.56038I$ $b=\ 1.11989-1.18585I$	$-4.8150-15.2799I$	0
$u=-0.49566+1.41952I$ $a=\ 0.097768-1.335680I$ $b=\ 1.12721-1.05527I$	$-3.27302-9.87260I$	0
$u=-0.49566-1.41952I$ $a=\ 0.097768+1.335680I$ $b=\ 1.12721+1.05527I$	$-3.27302+9.87260I$	0
$u=-0.52336+1.41547I$ $a=-0.07947+1.53199I$ $b=-1.19266+1.16794I$	$-21.1926I$	0
$u=-0.52336-1.41547I$ $a=-0.07947-1.53199I$ $b=-1.19266-1.16794I$	$21.1926I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.032323+0.488210I$ $a=\ \ 2.09768-1.19956I$ $b=\ \ 0.878672+0.483440I$	$1.86863+2.42778I$	$-1.84148-3.18567I$
$u=-0.032323-0.488210I$ $a=\ \ 2.09768+1.19956I$ $b=\ \ 0.878672-0.483440I$	$1.86863-2.42778I$	$-1.84148+3.18567I$
$u=-0.55103+1.41142I$ $a=-0.180781-1.213010I$ $b=\ \ 0.71543-1.26675I$	$-4.55064-12.36270I$	0
$u=-0.55103-1.41142I$ $a=-0.180781+1.213010I$ $b=\ \ 0.71543+1.26675I$	$-4.55064+12.36270I$	0
$u=-0.45405+1.44835I$ $a=\ \ 0.153871+1.082070I$ $b=-0.727446+1.088470I$	$-5.28153-0.05412I$	0
$u=-0.45405-1.44835I$ $a=\ \ 0.153871-1.082070I$ $b=-0.727446-1.088470I$	$-5.28153+0.05412I$	0
$u=\ \ 0.56779+1.40884I$ $a=\ \ 0.202193-1.078280I$ $b=-0.489265-1.074590I$	$-7.09688+7.79945I$	0
$u=\ \ 0.56779-1.40884I$ $a=\ \ 0.202193+1.078280I$ $b=-0.489265+1.074590I$	$-7.09688-7.79945I$	0
$u=-0.39672+1.48404I$ $a=\ \ 0.41948-1.35360I$ $b=\ \ 1.34627-1.05476I$	$-2.66927-10.63920I$	0
$u=-0.39672-1.48404I$ $a=\ \ 0.41948+1.35360I$ $b=\ \ 1.34627+1.05476I$	$-2.66927+10.63920I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.45381+1.48253I$ $a=\ 0.041830-0.787075I$ $b=\ 0.233612-0.401016I$	$0.02938-4.49255I$	0
$u=-0.45381-1.48253I$ $a=\ 0.041830+0.787075I$ $b=\ 0.233612+0.401016I$	$0.02938+4.49255I$	0
$u=\ 0.416635+0.116298I$ $a=\ 1.94950+1.60645I$ $b=\ 0.375771-0.649892I$	$1.21991+3.70716I$	$3.65613+0.03445I$
$u=\ 0.416635-0.116298I$ $a=\ 1.94950-1.60645I$ $b=\ 0.375771+0.649892I$	$1.21991-3.70716I$	$3.65613-0.03445I$
$u=-0.24177+1.55048I$ $a=\ 0.262831-0.656420I$ $b=\ 0.128568-0.352787I$	$-0.02938-4.49255I$	0
$u=-0.24177-1.55048I$ $a=\ 0.262831+0.656420I$ $b=\ 0.128568+0.352787I$	$-0.02938+4.49255I$	0
$u=\ 0.53462+1.50289I$ $a=-0.205849-1.097200I$ $b=-1.176730-0.764126I$	$-0.34239+9.94779I$	0
$u=\ 0.53462-1.50289I$ $a=-0.205849+1.097200I$ $b=-1.176730+0.764126I$	$-0.34239-9.94779I$	0
$u=-0.47942+1.55291I$ $a=-0.137027+0.541822I$ $b=-0.430878+0.587792I$	$-2.54480-3.04371I$	0
$u=-0.47942-1.55291I$ $a=-0.137027-0.541822I$ $b=-0.430878-0.587792I$	$-2.54480+3.04371I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.030070 + 0.303397I$ $a = -2.28833 - 0.18563I$ $b = -0.214561 + 0.862499I$	$-0.36799 - 1.98151I$	$-5.16189 + 2.74306I$
$u = 0.030070 - 0.303397I$ $a = -2.28833 + 0.18563I$ $b = -0.214561 - 0.862499I$	$-0.36799 + 1.98151I$	$-5.16189 - 2.74306I$
$u = 0.070987 + 0.282425I$ $a = -2.21859 - 1.96886I$ $b = -0.282667 + 0.462908I$	$-1.54443I$	$0. + 2.49541I$
$u = 0.070987 - 0.282425I$ $a = -2.21859 + 1.96886I$ $b = -0.282667 - 0.462908I$	$1.54443I$	$0. - 2.49541I$
$u = 0.184186 + 0.200419I$ $a = 0.521337 + 0.303755I$ $b = -0.515096 + 1.111330I$	$-0.73655 - 2.57695I$	$5.30271 - 12.37335I$
$u = 0.184186 - 0.200419I$ $a = 0.521337 - 0.303755I$ $b = -0.515096 - 1.111330I$	$-0.73655 + 2.57695I$	$5.30271 + 12.37335I$
$u = 0.238366 + 0.093654I$ $a = -2.08445 + 3.69097I$ $b = 0.305214 + 1.093080I$	$-1.72222 - 4.16466I$	$0.59107 + 8.58259I$
$u = 0.238366 - 0.093654I$ $a = -2.08445 - 3.69097I$ $b = 0.305214 - 1.093080I$	$-1.72222 + 4.16466I$	$0.59107 - 8.58259I$
$u = 0.29429 + 1.72670I$ $a = 0.494354 + 0.258175I$ $b = 0.706659 + 0.143277I$	$1.82065 + 7.38526I$	0
$u = 0.29429 - 1.72670I$ $a = 0.494354 - 0.258175I$ $b = 0.706659 - 0.143277I$	$1.82065 - 7.38526I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.209217+0.094546I$ $a=\ \ 5.38500-1.28296I$ $b=-0.232961-0.990092I$	$3.27302-9.87260I$	$3.12672+6.25006I$
$u=-0.209217-0.094546I$ $a=\ \ 5.38500+1.28296I$ $b=-0.232961+0.990092I$	$3.27302+9.87260I$	$3.12672-6.25006I$
$u=\ \ 0.72701+1.73189I$ $a=\ \ 0.172316-0.211777I$ $b=-0.002081-0.350660I$	$-3.81603-2.52639I$	0
$u=\ \ 0.72701-1.73189I$ $a=\ \ 0.172316+0.211777I$ $b=-0.002081+0.350660I$	$-3.81603+2.52639I$	0
$u=-0.88272+1.73528I$ $a=-0.204733-0.123162I$ $b=-0.150904-0.386644I$	$0.88974+8.03757I$	0
$u=-0.88272-1.73528I$ $a=-0.204733+0.123162I$ $b=-0.150904+0.386644I$	$0.88974-8.03757I$	0

II. $I_2^u = \langle -1.39\times 10^{28}u^{33} + 3.61\times 10^{28}u^{32} + \cdots + 5.54\times 10^{28}b + 8.01\times 10^{28},\ -1.76\times 10^{28}u^{33} + 3.91\times 10^{28}u^{32} + \cdots + 5.54\times 10^{28}a - 1.16\times 10^{29},\ u^{34} + 16u^{32} + \cdots - 15u + 1\rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.316924u^{33} - 0.704935u^{32} + \cdots + 28.6854u + 2.08546 \\ 0.251234u^{33} - 0.651588u^{32} + \cdots + 22.8146u - 1.44577 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.174289u^{33} + 0.164040u^{32} + \cdots - 87.3641u + 8.28947 \\ 0.0449191u^{33} - 0.223032u^{32} + \cdots - 16.9296u + 2.43340 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.0656905u^{33} - 0.0533476u^{32} + \cdots + 5.87079u + 3.53123 \\ 0.251234u^{33} - 0.651588u^{32} + \cdots + 22.8146u - 1.44577 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.264624u^{33} - 0.262932u^{32} + \cdots + 23.8016u - 0.723715 \\ 0.440644u^{33} - 0.261551u^{32} + \cdots + 8.00456u - 0.743691 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.212521u^{33} - 0.427199u^{32} + \cdots - 15.9889u + 3.07893 \\ -0.471540u^{33} + 0.721229u^{32} + \cdots - 2.02843u + 0.408987 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.165795u^{33} - 0.184854u^{32} + \cdots + 22.9426u + 2.44271 \\ 0.0902815u^{33} - 0.463733u^{32} + \cdots + 20.6050u - 1.28295 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1.38205u^{33} + 0.383365u^{32} + \cdots + 82.0387u - 9.45750 \\ 0.504970u^{33} - 0.128524u^{32} + \cdots + 11.6023u - 2.31824 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.599362u^{33} + 0.0651587u^{32} + \cdots - 60.5899u + 5.36567 \\ -0.674433u^{33} - 0.538611u^{32} + \cdots - 6.37148u + 1.47113 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -2.11866u^{33} + 1.35178u^{32} + \cdots - 230.782u + 15.7346$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{34} - 7u^{33} + \cdots + u + 3$
c_2	$4(4u^{34} + 18u^{33} + \cdots - 5u + 1)$
c_3	$4(4u^{34} + 14u^{33} + \cdots - 17u + 9)$
c_4, c_{10}	$u^{34} + 16u^{32} + \cdots + 15u + 1$
c_5	$4(4u^{34} - 14u^{33} + \cdots + 17u + 9)$
c_6, c_8	$u^{34} + 16u^{32} + \cdots - 15u + 1$
c_7	$u^{34} + 2u^{33} + \cdots - 352u + 64$
c_9	$4(4u^{34} - 18u^{33} + \cdots + 5u + 1)$
c_{11}	$u^{34} + 7u^{33} + \cdots - u + 3$
c_{12}	$u^{34} - 2u^{33} + \cdots + 352u + 64$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_{11}	$y^{34} - 7y^{33} + \cdots - 103y + 9$
c_2, c_9	$16(16y^{34} + 68y^{33} + \cdots + y + 1)$
c_3, c_5	$16(16y^{34} + 468y^{33} + \cdots + 1925y + 81)$
c_4, c_6, c_8 c_{10}	$y^{34} + 32y^{33} + \cdots - 53y + 1$
c_7, c_{12}	$y^{34} + 26y^{33} + \cdots + 17408y + 4096$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.007360+0.122162I$ $a=-0.080049-0.345633I$ $b=\ \ 0.874443-0.622040I$	$3.54342-2.55169I$	$-0.56417+6.84796I$
$u=-1.007360-0.122162I$ $a=-0.080049+0.345633I$ $b=\ \ 0.874443+0.622040I$	$3.54342+2.55169I$	$-0.56417-6.84796I$
$u=-0.206243+0.996810I$ $a=\ \ 0.99115+2.79678I$ $b=-0.136293+0.876696I$	$1.94369-10.56810I$	$-2.94445+9.61134I$
$u=-0.206243-0.996810I$ $a=\ \ 0.99115-2.79678I$ $b=-0.136293-0.876696I$	$1.94369+10.56810I$	$-2.94445-9.61134I$
$u=\ \ 0.832411+0.698054I$ $a=\ \ 0.857133-0.314389I$ $b=-0.814595-0.117293I$	$4.30044+3.15824I$	$4.28303-3.19970I$
$u=\ \ 0.832411-0.698054I$ $a=\ \ 0.857133+0.314389I$ $b=-0.814595+0.117293I$	$4.30044-3.15824I$	$4.28303+3.19970I$
$u=\ \ 1.042800+0.342130I$ $a=\ \ 0.286450+0.016933I$ $b=-0.859567-0.626056I$	$3.90273+5.14015I$	$3.47152-6.22803I$
$u=\ \ 1.042800-0.342130I$ $a=\ \ 0.286450-0.016933I$ $b=-0.859567+0.626056I$	$3.90273-5.14015I$	$3.47152+6.22803I$
$u=\ \ 0.138397+1.100230I$ $a=-0.20443+2.26647I$ $b=-0.504123+1.141290I$	$-3.90273+5.14015I$	$-3.47152-6.22803I$
$u=\ \ 0.138397-1.100230I$ $a=-0.20443-2.26647I$ $b=-0.504123-1.141290I$	$-3.90273-5.14015I$	$-3.47152+6.22803I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.565368+0.668168I$ $a=-1.190060-0.195474I$ $b=\ 0.676619-0.319952I$	$0.82148-2.82425I$	$5.9302+16.2452I$
$u=-0.565368-0.668168I$ $a=-1.190060+0.195474I$ $b=\ 0.676619+0.319952I$	$0.82148+2.82425I$	$5.9302-16.2452I$
$u=-0.035377+1.189750I$ $a=\ 0.93500+1.62049I$ $b=\ 1.35892+1.93635I$	$-1.21174I$	$0.-10.06752I$
$u=-0.035377-1.189750I$ $a=\ 0.93500-1.62049I$ $b=\ 1.35892-1.93635I$	$1.21174I$	$0.+10.06752I$
$u=-0.053628+1.214490I$ $a=\ 0.04564-2.37578I$ $b=\ 0.56540-1.36944I$	$-4.30044-3.15824I$	$-4.28303+3.19970I$
$u=-0.053628-1.214490I$ $a=\ 0.04564+2.37578I$ $b=\ 0.56540+1.36944I$	$-4.30044+3.15824I$	$-4.28303-3.19970I$
$u=-0.126448+0.677789I$ $a=\ 2.65054-0.36149I$ $b=\ 1.66659+0.41329I$	$1.22010I$	$0.-26.1084I$
$u=-0.126448-0.677789I$ $a=\ 2.65054+0.36149I$ $b=\ 1.66659-0.41329I$	$-1.22010I$	$0.+26.1084I$
$u=\ 0.275465+1.350330I$ $a=\ 0.20645+1.59949I$ $b=\ 0.534402+1.273060I$	$-5.33925+4.90638I$	$-9.92127-5.06834I$
$u=\ 0.275465-1.350330I$ $a=\ 0.20645-1.59949I$ $b=\ 0.534402-1.273060I$	$-5.33925-4.90638I$	$-9.92127+5.06834I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.165933 + 0.520579I$ $a = 2.19236 + 1.06552I$ $b = -0.872873 - 0.146099I$	$5.33925 + 4.90638I$	$9.92127 - 5.06834I$
$u = 0.165933 - 0.520579I$ $a = 2.19236 - 1.06552I$ $b = -0.872873 + 0.146099I$	$5.33925 - 4.90638I$	$9.92127 + 5.06834I$
$u = -0.48249 + 1.37897I$ $a = 0.02302 - 1.60386I$ $b = 0.94038 - 1.06608I$	$-1.12576 - 7.88778I$	$-6.71072 + 5.79695I$
$u = -0.48249 - 1.37897I$ $a = 0.02302 + 1.60386I$ $b = 0.94038 + 1.06608I$	$-1.12576 + 7.88778I$	$-6.71072 - 5.79695I$
$u = 0.37311 + 1.48298I$ $a = -0.121460 + 0.239187I$ $b = -0.301139 - 0.019952I$	$-3.54342 - 2.55169I$	0
$u = 0.37311 - 1.48298I$ $a = -0.121460 - 0.239187I$ $b = -0.301139 + 0.019952I$	$-3.54342 + 2.55169I$	0
$u = 0.46619 + 1.49286I$ $a = -0.273131 - 1.199730I$ $b = -1.24025 - 0.98229I$	$-1.94369 + 10.56810I$	0
$u = 0.46619 - 1.49286I$ $a = -0.273131 + 1.199730I$ $b = -1.24025 + 0.98229I$	$-1.94369 - 10.56810I$	0
$u = -0.46978 + 1.57404I$ $a = -0.029144 + 0.179167I$ $b = 0.105266 - 0.219423I$	$1.12576 + 7.88778I$	0
$u = -0.46978 - 1.57404I$ $a = -0.029144 - 0.179167I$ $b = 0.105266 + 0.219423I$	$1.12576 - 7.88778I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.44287+1.67050I$ $a=-0.060407+0.596856I$ $b=-0.219789+0.403786I$	$-4.69367I$	0
$u=-0.44287-1.67050I$ $a=-0.060407-0.596856I$ $b=-0.219789-0.403786I$	$4.69367I$	0
$u=0.0952517+0.0594354I$ $a=4.52094+1.38019I$ $b=0.476613+1.047310I$	$-0.82148+2.82425I$	$-5.9302-16.2452I$
$u=0.0952517-0.0594354I$ $a=4.52094-1.38019I$ $b=0.476613-1.047310I$	$-0.82148-2.82425I$	$-5.9302+16.2452I$

III. $I_3^u = \langle b+u,\ a+u+1,\ u^2+u+1 \rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u-1 \\ -u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ u+1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ u+1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -1 \\ -u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u \\ -1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u+1 \\ -1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u \\ u+1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -1 \\ -2u-1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u \\ -1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u+1 \\ 2u+2 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 8u + 4$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4, c_9 c_{10}	$u^2 - u + 1$
c_2, c_6, c_8 c_{11}	$u^2 + u + 1$
c_3	$(u-1)^2$
c_5	$(u+1)^2$
c_7, c_{12}	u^2

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4 c_6, c_8, c_9 c_{10}, c_{11}	$y^2 + y + 1$
c_3, c_5	$(y-1)^2$
c_7, c_{12}	y^2

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.500000+0.866025I$ $a=-0.500000-0.866025I$ $b=\ \ 0.500000-0.866025I$	$-4.05977I$	$0.+6.92820I$
$u=-0.500000-0.866025I$ $a=-0.500000+0.866025I$ $b=\ \ 0.500000+0.866025I$	$4.05977I$	$0.-6.92820I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^2-u+1)(u^{34}-7u^{33}+\cdots+u+3)$ $\cdot(u^{176}+7u^{175}+\cdots+69156u+17323)$
c_2	$16(u^2+u+1)(4u^{34}+18u^{33}+\cdots-5u+1)$ $\cdot(4u^{176}-42u^{175}+\cdots+4u+3)$
c_3	$16(u-1)^2(4u^{34}+14u^{33}+\cdots-17u+9)$ $\cdot(4u^{176}+18u^{175}+\cdots+1692960025u+102369073)$
c_4	$(u^2-u+1)(u^{34}+16u^{32}+\cdots+15u+1)$ $\cdot(u^{176}+6u^{175}+\cdots-5650u+939)$
c_5	$16(u+1)^2(4u^{34}-14u^{33}+\cdots+17u+9)$ $\cdot(4u^{176}-18u^{175}+\cdots-1692960025u+102369073)$
c_6	$(u^2+u+1)(u^{34}+16u^{32}+\cdots-15u+1)$ $\cdot(u^{176}-6u^{175}+\cdots+5650u+939)$
c_7	$u^2(u^{34}+2u^{33}+\cdots-352u+64)$ $\cdot(u^{176}+u^{175}+\cdots-12001832u+1637744)$
c_8	$(u^2+u+1)(u^{34}+16u^{32}+\cdots-15u+1)$ $\cdot(u^{176}+6u^{175}+\cdots-5650u+939)$
c_9	$16(u^2-u+1)(4u^{34}-18u^{33}+\cdots+5u+1)$ $\cdot(4u^{176}+42u^{175}+\cdots-4u+3)$
c_{10}	$(u^2-u+1)(u^{34}+16u^{32}+\cdots+15u+1)$ $\cdot(u^{176}-6u^{175}+\cdots+5650u+939)$
c_{11}	$(u^2+u+1)(u^{34}+7u^{33}+\cdots-u+3)$ $\cdot(u^{176}-7u^{175}+\cdots-69156u+17323)$
c_{12}	$u^2(u^{34}-2u^{33}+\cdots+352u+64)$ $\cdot(u^{176}-u^{175}+\cdots+12001832u+1637744)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_{11}	$(y^2+y+1)(y^{34}-7y^{33}+\cdots-103y+9)$ $\cdot(y^{176}+11y^{175}+\cdots+18368043448y+300086329)$
c_2, c_9	$256(y^2+y+1)(16y^{34}+68y^{33}+\cdots+y+1)$ $\cdot(16y^{176}+164y^{175}+\cdots+632y+9)$
c_3, c_5	$256(y-1)^2(16y^{34}+468y^{33}+\cdots+1925y+81)$ $\cdot(16y^{176}+1348y^{175}+\cdots+6.24\times10^{17}y+1.05\times10^{16})$
c_4, c_6, c_8 c_{10}	$(y^2+y+1)(y^{34}+32y^{33}+\cdots-53y+1)$ $\cdot(y^{176}+134y^{175}+\cdots+23450330y+881721)$
c_7, c_{12}	$y^2(y^{34}+26y^{33}+\cdots+17408y+4096)$ $\cdot(y^{176}+51y^{175}+\cdots+119113228533312y+2682205409536)$