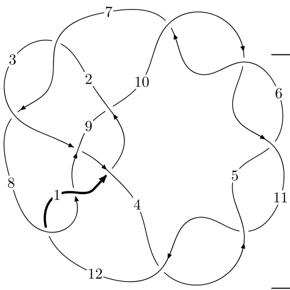
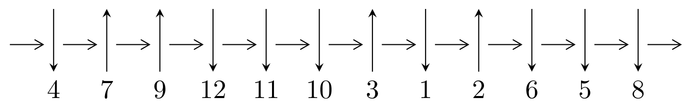
$12a_{1063}$ $(K12a_{1063})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I^u_1 = \langle & 6.41268 \times 10^{106} u^{66} + 5.37842 \times 10^{106} u^{65} + \cdots + 7.96827 \times 10^{105} b + 2.18486 \times 10^{108}, \\
& - 5.09982 \times 10^{109} u^{66} - 3.33786 \times 10^{109} u^{65} + \cdots + 1.77932 \times 10^{109} a - 1.54505 \times 10^{111}, \\
& u^{67} - 18u^{65} + \cdots + 34u - 29 \rangle \\
I^u_2 = \langle & -u^{11} - 2u^{10} + 3u^9 + 8u^8 - 7u^7 - 21u^6 + 7u^5 + 27u^4 - 4u^3 - 20u^2 + b + u + 5, \\
& - 2u^{12} + 10u^{10} + 2u^9 - 32u^8 - 4u^7 + 58u^6 + 6u^5 - 66u^4 - 2u^3 + 41u^2 + a - 12, \\
& u^{13} + u^{12} - 4u^{11} - 5u^{10} + 11u^9 + 13u^8 - 16u^7 - 19u^6 + 14u^5 + 15u^4 - 6u^3 - 6u^2 + u + 1 \rangle
\end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 80 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. $\boldsymbol{I_1^u = \langle 6.41 \times 10^{106} u^{66} + 5.38 \times 10^{106} u^{65} + \cdots + 7.97 \times 10^{105} b + 2.18 \times 10^{108},\ -5.10 \times 10^{109} u^{66} - 3.34 \times 10^{109} u^{65} + \cdots + 1.78 \times 10^{109} a - 1.55 \times 10^{111},\ u^{67} - 18u^{65} + \cdots + 34u - 29 \rangle}$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} 2.86617u^{66} + 1.87592u^{65} + \cdots + 26.5482u + 86.8341 \\ -8.04777u^{66} - 6.74979u^{65} + \cdots + 1.01965u - 274.195 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -5.18160u^{66} - 4.87387u^{65} + \cdots + 27.5678u - 187.361 \\ -8.04777u^{66} - 6.74979u^{65} + \cdots + 1.01965u - 274.195 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.569565u^{66} + 0.302604u^{65} + \cdots - 60.1340u + 38.1233 \\ -5.45740u^{66} - 5.15294u^{65} + \cdots + 17.0431u - 197.550 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1.53537u^{66} + 0.976716u^{65} + \cdots + 16.9891u + 52.7642 \\ -10.1163u^{66} - 8.67159u^{65} + \cdots + 7.47077u - 344.653 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1.29876u^{66} + 0.433635u^{65} + \cdots + 24.4829u + 22.4634 \\ -6.76250u^{66} - 5.55933u^{65} + \cdots - 10.3127u - 235.152 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -8.09315u^{66} - 7.31257u^{65} + \cdots + 4.35672u - 276.655 \\ -1.69292u^{66} - 1.39081u^{65} + \cdots - 4.92421u - 54.8481 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 4.79638u^{66} + 3.91190u^{65} + \cdots + 9.42862u + 183.767 \\ 9.31661u^{66} + 7.79591u^{65} + \cdots + 0.327753u + 313.089 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 3.20540u^{66} + 2.54543u^{65} + \cdots - 1.99013u + 114.771 \\ 3.37305u^{66} + 3.10208u^{65} + \cdots - 4.99752u + 106.804 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -2.24398u^{66} - 2.83903u^{65} + \cdots + 14.5192u - 13.8222$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{67} - 11u^{66} + \cdots + 187u - 13$
c_2, c_7	$u^{67} - 28u^{65} + \cdots - 926u - 317$
c_3	$u^{67} - u^{66} + \cdots - 5u - 1$
c_4, c_5, c_6 c_{10}, c_{11}	$u^{67} + u^{66} + \cdots + 15u - 1$
c_8, c_{12}	$u^{67} - 18u^{65} + \cdots + 34u - 29$
c_9	$u^{67} + 3u^{66} + \cdots + 82237u + 97193$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{67} + 5y^{66} + \cdots - 3199y - 169$
c_2, c_7	$y^{67} - 56y^{66} + \cdots + 1949858y - 100489$
c_3	$y^{67} + 5y^{66} + \cdots + 13y - 1$
c_4, c_5, c_6 c_{10}, c_{11}	$y^{67} + 93y^{66} + \cdots + 75y - 1$
c_8, c_{12}	$y^{67} - 36y^{66} + \cdots + 4694y - 841$
c_9	$y^{67} - 31y^{66} + \cdots + 176544321833y - 9446479249$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.911539 + 0.421875I$ $a = -0.068762 + 0.784351I$ $b = 0.379133 - 1.265230I$	$6.39745 - 0.28170I$	$3.68167 + 1.63128I$
$u = 0.911539 - 0.421875I$ $a = -0.068762 - 0.784351I$ $b = 0.379133 + 1.265230I$	$6.39745 + 0.28170I$	$3.68167 - 1.63128I$
$u = -0.957914 + 0.261576I$ $a = -0.867716 + 0.026848I$ $b = -0.344734 - 0.548883I$	$-2.09647 + 1.32539I$	$-5.24417 + 2.03553I$
$u = -0.957914 - 0.261576I$ $a = -0.867716 - 0.026848I$ $b = -0.344734 + 0.548883I$	$-2.09647 - 1.32539I$	$-5.24417 - 2.03553I$
$u = 0.941880 + 0.411762I$ $a = 2.83735 - 1.30126I$ $b = -0.00731 + 1.74185I$	$16.3104 + 0.6556I$	0
$u = 0.941880 - 0.411762I$ $a = 2.83735 + 1.30126I$ $b = -0.00731 - 1.74185I$	$16.3104 - 0.6556I$	0
$u = -0.933354 + 0.492729I$ $a = -1.87664 - 0.85621I$ $b = -0.11584 + 1.74926I$	$16.8834 + 5.6261I$	0
$u = -0.933354 - 0.492729I$ $a = -1.87664 + 0.85621I$ $b = -0.11584 - 1.74926I$	$16.8834 - 5.6261I$	0
$u = 0.044204 + 0.937111I$ $a = 0.36495 + 2.34631I$ $b = 0.01639 - 1.74788I$	$14.4001 + 2.3576I$	$2.94594 - 2.68766I$
$u = 0.044204 - 0.937111I$ $a = 0.36495 - 2.34631I$ $b = 0.01639 + 1.74788I$	$14.4001 - 2.3576I$	$2.94594 + 2.68766I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.213053 + 0.888666I$ $a = 0.231539 - 0.140350I$ $b = -0.496535 + 0.391220I$	$3.80122 + 3.48677I$	$1.50459 - 6.08806I$
$u = 0.213053 - 0.888666I$ $a = 0.231539 + 0.140350I$ $b = -0.496535 - 0.391220I$	$3.80122 - 3.48677I$	$1.50459 + 6.08806I$
$u = -0.846245 + 0.321552I$ $a = 0.61208 + 2.38869I$ $b = 0.093534 - 1.199810I$	$6.13436 + 3.42440I$	$3.18390 - 7.59222I$
$u = -0.846245 - 0.321552I$ $a = 0.61208 - 2.38869I$ $b = 0.093534 + 1.199810I$	$6.13436 - 3.42440I$	$3.18390 + 7.59222I$
$u = -0.820163 + 0.327205I$ $a = 2.81348 + 0.85529I$ $b = -0.036223 - 1.035500I$	$6.25055 - 0.48911I$	$3.45164 - 1.01139I$
$u = -0.820163 - 0.327205I$ $a = 2.81348 - 0.85529I$ $b = -0.036223 + 1.035500I$	$6.25055 + 0.48911I$	$3.45164 + 1.01139I$
$u = -1.123370 + 0.096274I$ $a = 0.424475 + 0.075853I$ $b = 0.494247 - 0.014050I$	$-1.62181 + 0.02269I$	0
$u = -1.123370 - 0.096274I$ $a = 0.424475 - 0.075853I$ $b = 0.494247 + 0.014050I$	$-1.62181 - 0.02269I$	0
$u = 1.096340 + 0.265900I$ $a = 0.267621 - 0.835654I$ $b = 0.182943 + 0.611667I$	$0.46218 - 2.47238I$	0
$u = 1.096340 - 0.265900I$ $a = 0.267621 + 0.835654I$ $b = 0.182943 - 0.611667I$	$0.46218 + 2.47238I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.743213 + 0.435398I$ $a = -1.70976 + 0.61628I$ $b = -0.427277 - 1.048580I$	$6.92279 - 3.34780I$	$4.36116 + 6.70161I$
$u = 0.743213 - 0.435398I$ $a = -1.70976 - 0.61628I$ $b = -0.427277 + 1.048580I$	$6.92279 + 3.34780I$	$4.36116 - 6.70161I$
$u = -0.714727 + 0.462622I$ $a = -0.40015 - 1.74859I$ $b = 0.07625 + 1.80066I$	$17.6004 - 1.6619I$	$3.32730 - 2.13677I$
$u = -0.714727 - 0.462622I$ $a = -0.40015 + 1.74859I$ $b = 0.07625 - 1.80066I$	$17.6004 + 1.6619I$	$3.32730 + 2.13677I$
$u = 0.849913 + 0.004699I$ $a = -0.983320 + 0.357317I$ $b = -0.08597 - 1.49062I$	$4.71376 - 0.13480I$	$-1.92495 - 0.89580I$
$u = 0.849913 - 0.004699I$ $a = -0.983320 - 0.357317I$ $b = -0.08597 + 1.49062I$	$4.71376 + 0.13480I$	$-1.92495 + 0.89580I$
$u = 1.101520 + 0.374248I$ $a = -0.963347 + 0.246989I$ $b = -0.454819 - 0.219630I$	$-3.04650 - 4.08120I$	0
$u = 1.101520 - 0.374248I$ $a = -0.963347 - 0.246989I$ $b = -0.454819 + 0.219630I$	$-3.04650 + 4.08120I$	0
$u = -0.341431 + 1.121720I$ $a = 0.12904 + 1.42741I$ $b = -0.274364 - 1.120720I$	$8.54942 - 6.13683I$	0
$u = -0.341431 - 1.121720I$ $a = 0.12904 - 1.42741I$ $b = -0.274364 + 1.120720I$	$8.54942 + 6.13683I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.746384 + 0.348296I$ $a = 0.84623 - 3.50024I$ $b = 0.02510 + 1.78045I$	$17.0237 - 3.9581I$	$3.89654 + 9.21023I$
$u = 0.746384 - 0.348296I$ $a = 0.84623 + 3.50024I$ $b = 0.02510 - 1.78045I$	$17.0237 + 3.9581I$	$3.89654 - 9.21023I$
$u = -1.082940 + 0.474938I$ $a = 0.248068 - 0.033853I$ $b = 0.714167 + 0.431814I$	$1.03521 + 4.14529I$	0
$u = -1.082940 - 0.474938I$ $a = 0.248068 + 0.033853I$ $b = 0.714167 - 0.431814I$	$1.03521 - 4.14529I$	0
$u = 1.079690 + 0.515780I$ $a = 0.713191 - 0.915829I$ $b = 0.273936 + 0.839036I$	$0.92752 - 2.65769I$	0
$u = 1.079690 - 0.515780I$ $a = 0.713191 + 0.915829I$ $b = 0.273936 - 0.839036I$	$0.92752 + 2.65769I$	0
$u = -0.018771 + 0.740103I$ $a = 0.431980 - 1.337100I$ $b = 0.079739 + 1.078310I$	$4.17715 - 1.98310I$	$2.56146 + 3.70281I$
$u = -0.018771 - 0.740103I$ $a = 0.431980 + 1.337100I$ $b = 0.079739 - 1.078310I$	$4.17715 + 1.98310I$	$2.56146 - 3.70281I$
$u = -1.178940 + 0.464130I$ $a = -1.40653 - 0.63700I$ $b = -0.220716 + 1.038570I$	$0.87789 + 6.35203I$	0
$u = -1.178940 - 0.464130I$ $a = -1.40653 + 0.63700I$ $b = -0.220716 - 1.038570I$	$0.87789 - 6.35203I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.122660 + 0.661871I$ $a = -0.367437 - 0.393087I$ $b = -0.152890 + 0.112531I$	$-1.43076 + 2.95792I$	0
$u = -1.122660 - 0.661871I$ $a = -0.367437 + 0.393087I$ $b = -0.152890 - 0.112531I$	$-1.43076 - 2.95792I$	0
$u = 1.178950 + 0.557960I$ $a = 0.558551 - 0.569218I$ $b = 0.692203 + 0.382382I$	$0.92610 - 8.69550I$	0
$u = 1.178950 - 0.557960I$ $a = 0.558551 + 0.569218I$ $b = 0.692203 - 0.382382I$	$0.92610 + 8.69550I$	0
$u = 1.265620 + 0.334731I$ $a = 0.186332 - 0.590266I$ $b = 0.082577 + 0.794541I$	$0.48620 - 2.41088I$	0
$u = 1.265620 - 0.334731I$ $a = 0.186332 + 0.590266I$ $b = 0.082577 - 0.794541I$	$0.48620 + 2.41088I$	0
$u = 0.420195 + 1.250040I$ $a = 0.02300 - 2.32999I$ $b = -0.07232 + 1.75620I$	$18.8867 + 7.6160I$	0
$u = 0.420195 - 1.250040I$ $a = 0.02300 + 2.32999I$ $b = -0.07232 - 1.75620I$	$18.8867 - 7.6160I$	0
$u = 1.230230 + 0.520266I$ $a = -1.78301 + 1.11346I$ $b = -0.05364 - 1.73952I$	$10.86760 - 7.46054I$	0
$u = 1.230230 - 0.520266I$ $a = -1.78301 - 1.11346I$ $b = -0.05364 + 1.73952I$	$10.86760 + 7.46054I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.231260+0.654159I$ $a=\quad 1.03386+1.13547I$ $b=\quad 0.388039-1.148360I$	$5.71543+12.37830I$	0
$u=-1.231260-0.654159I$ $a=\quad 1.03386-1.13547I$ $b=\quad 0.388039+1.148360I$	$5.71543-12.37830I$	0
$u=\quad 0.596247$ $a=\quad 3.27483$ $b=-0.118694$	2.72187	12.3220
$u=\quad 1.12092+0.89509I$ $a=-0.68795+1.40826I$ $b=-0.067573-1.025250I$	$2.21541-3.67806I$	0
$u=\quad 1.12092-0.89509I$ $a=-0.68795-1.40826I$ $b=-0.067573+1.025250I$	$2.21541+3.67806I$	0
$u=-1.19452+0.83368I$ $a=\quad 0.91628+1.74672I$ $b=\quad 0.05898-1.67729I$	$9.79865+3.85767I$	0
$u=-1.19452-0.83368I$ $a=\quad 0.91628-1.74672I$ $b=\quad 0.05898+1.67729I$	$9.79865-3.85767I$	0
$u=\quad 1.26546+0.72436I$ $a=\quad 1.44566-1.62417I$ $b=\quad 0.10415+1.76501I$	$16.1228-14.4972I$	0
$u=\quad 1.26546-0.72436I$ $a=\quad 1.44566+1.62417I$ $b=\quad 0.10415-1.76501I$	$16.1228+14.4972I$	0
$u=-0.296599+0.423750I$ $a=-1.15875-1.48670I$ $b=-0.560900+0.176078I$	$3.22258-0.18308I$	$2.15559-1.99431I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.296599 - 0.423750I$ $a = -1.15875 + 1.48670I$ $b = -0.560900 - 0.176078I$	$3.22258 + 0.18308I$	$2.15559 + 1.99431I$
$u = -1.15139 + 1.01536I$ $a = -0.88854 - 2.15557I$ $b = -0.01667 + 1.73768I$	$12.20050 + 4.02011I$	0
$u = -1.15139 - 1.01536I$ $a = -0.88854 + 2.15557I$ $b = -0.01667 - 1.73768I$	$12.20050 - 4.02011I$	0
$u = -1.50528 + 0.32689I$ $a = 0.381459 + 1.002880I$ $b = 0.02627 - 1.70300I$	$9.62458 + 2.88325I$	0
$u = -1.50528 - 0.32689I$ $a = 0.381459 - 1.002880I$ $b = 0.02627 + 1.70300I$	$9.62458 - 2.88325I$	0
$u = 0.012338 + 0.390395I$ $a = 0.680053 + 0.166258I$ $b = 0.259476 - 0.310609I$	$-0.212950 + 0.924843I$	$-4.32360 - 7.27675I$
$u = 0.012338 - 0.390395I$ $a = 0.680053 - 0.166258I$ $b = 0.259476 + 0.310609I$	$-0.212950 - 0.924843I$	$-4.32360 + 7.27675I$

II.

$\boldsymbol{I_2^u = \langle -u^{11}-2u^{10}+\cdots+b+5,\ -2u^{12}+10u^{10}+\cdots+a-12,\ u^{13}+u^{12}+\cdots+u+1\rangle}$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} 2u^{12} - 10u^{10} + \cdots - 41u^2 + 12 \\ u^{11} + 2u^{10} + \cdots - u - 5 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 2u^{12} + u^{11} + \cdots - u + 7 \\ u^{11} + 2u^{10} + \cdots - u - 5 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -6u^{12} + 29u^{10} + \cdots - u - 21 \\ 4u^{12} - 19u^{10} + \cdots + u + 9 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^{12} - 5u^{10} - u^9 + 16u^8 + 2u^7 - 29u^6 - 3u^5 + 33u^4 + u^3 - 21u^2 + 7 \\ u^{11} + 2u^{10} + \cdots - u - 5 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 7u^{12} + 6u^{11} + \cdots - 21u + 7 \\ -5u^{12} - 5u^{11} + \cdots + 10u - 4 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 7u^{12} - u^{11} + \cdots + 3u + 20 \\ -6u^{12} - 3u^{11} + \cdots + 3u - 4 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 7u^{12} + u^{11} + \cdots + 6u + 2 \\ 5u^{12} + 3u^{11} + \cdots - 9u + 10 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -15u^{12} - 10u^{11} + \cdots + 17u - 14 \\ 5u^{12} + 2u^{11} + \cdots + 3u + 4 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $=$
$-22u^{12}-4u^{11}+96u^{10}+37u^9-287u^8-73u^7+450u^6+101u^5-431u^4-33u^3+190u^2+9u-35$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{13} - 4u^{10} + 4u^9 + 3u^8 - 3u^7 - 5u^6 + 7u^5 + u^4 - 8u^3 + 8u^2 - 4u + 1$
c_2	$u^{13} + u^{12} + \cdots + u + 1$
c_3	$u^{13} + 2u^{11} + u^{10} - u^9 + 3u^8 + 3u^6 + u^5 + 5u^4 + u^3 + 2u^2 + 1$
c_4, c_5, c_6	$u^{13} + 10u^{11} + 38u^9 + 68u^7 + 57u^5 + u^4 + 18u^3 + 3u^2 + 1$
c_7	$u^{13} - u^{12} + \cdots + u - 1$
c_8	$u^{13} - u^{12} + \cdots + u - 1$
c_9	$u^{13} + 2u^{11} + u^{10} + 5u^9 + u^8 + 3u^7 + 3u^5 - u^4 + u^3 + 2u^2 + 1$
c_{10}, c_{11}	$u^{13} + 10u^{11} + 38u^9 + 68u^7 + 57u^5 - u^4 + 18u^3 - 3u^2 - 1$
c_{12}	$u^{13} + u^{12} + \cdots + u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{13} + 8y^{11} + \cdots - 2y^2 - 1$
c_2, c_7	$y^{13} - 13y^{12} + \cdots + 9y - 1$
c_3	$y^{13} + 4y^{12} + \cdots - 4y - 1$
c_4, c_5, c_6 c_{10}, c_{11}	$y^{13} + 20y^{12} + \cdots - 6y - 1$
c_8, c_{12}	$y^{13} - 9y^{12} + \cdots + 13y - 1$
c_9	$y^{13} + 4y^{12} + \cdots - 4y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.948079 + 0.324385I$ $a = 0.368012 - 0.605111I$ $b = -0.09053 + 1.45630I$	$4.91032 - 1.37133I$	$-0.29295 + 5.20513I$
$u = 0.948079 - 0.324385I$ $a = 0.368012 + 0.605111I$ $b = -0.09053 - 1.45630I$	$4.91032 + 1.37133I$	$-0.29295 - 5.20513I$
$u = -1.065680 + 0.520913I$ $a = -0.262500 + 0.011383I$ $b = -0.192457 - 0.338010I$	$-1.17515 + 2.48894I$	$-1.25946 + 0.71875I$
$u = -1.065680 - 0.520913I$ $a = -0.262500 - 0.011383I$ $b = -0.192457 + 0.338010I$	$-1.17515 - 2.48894I$	$-1.25946 - 0.71875I$
$u = -0.694325$ $a = 2.63071$ $b = 0.374429$	2.39492	-13.5690
$u = 0.675349 + 0.131621I$ $a = 2.35416 - 1.40865I$ $b = 0.222851 + 1.128390I$	$6.17686 - 2.12086I$	$1.85400 + 1.87010I$
$u = 0.675349 - 0.131621I$ $a = 2.35416 + 1.40865I$ $b = 0.222851 - 1.128390I$	$6.17686 + 2.12086I$	$1.85400 - 1.87010I$
$u = -0.599201 + 0.212216I$ $a = 2.16027 + 2.86084I$ $b = 0.04446 - 1.77839I$	$16.8528 + 3.2097I$	$1.39084 + 0.39958I$
$u = -0.599201 - 0.212216I$ $a = 2.16027 - 2.86084I$ $b = 0.04446 + 1.77839I$	$16.8528 - 3.2097I$	$1.39084 - 0.39958I$
$u = 1.21798 + 0.74418I$ $a = -0.622349 + 0.939240I$ $b = -0.132288 - 0.825196I$	$0.45906 - 3.58419I$	$-3.02279 + 8.10522I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.21798 - 0.74418I$ $a = -0.622349 - 0.939240I$ $b = -0.132288 + 0.825196I$	$0.45906 + 3.58419I$	$-3.02279 - 8.10522I$
$u = -1.32936 + 0.92121I$ $a = -0.81295 - 1.73337I$ $b = -0.03925 + 1.68347I$	$9.41212 + 4.26962I$	$-4.38533 - 8.77522I$
$u = -1.32936 - 0.92121I$ $a = -0.81295 + 1.73337I$ $b = -0.03925 - 1.68347I$	$9.41212 - 4.26962I$	$-4.38533 + 8.77522I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{13}-4u^{10}+4u^9+3u^8-3u^7-5u^6+7u^5+u^4-8u^3+8u^2-4u+1)$ $\cdot(u^{67}-11u^{66}+\cdots+187u-13)$
c_2	$(u^{13}+u^{12}+\cdots+u+1)(u^{67}-28u^{65}+\cdots-926u-317)$
c_3	$(u^{13}+2u^{11}+u^{10}-u^9+3u^8+3u^6+u^5+5u^4+u^3+2u^2+1)$ $\cdot(u^{67}-u^{66}+\cdots-5u-1)$
c_4, c_5, c_6	$(u^{13}+10u^{11}+38u^9+68u^7+57u^5+u^4+18u^3+3u^2+1)$ $\cdot(u^{67}+u^{66}+\cdots+15u-1)$
c_7	$(u^{13}-u^{12}+\cdots+u-1)(u^{67}-28u^{65}+\cdots-926u-317)$
c_8	$(u^{13}-u^{12}+\cdots+u-1)(u^{67}-18u^{65}+\cdots+34u-29)$
c_9	$(u^{13}+2u^{11}+u^{10}+5u^9+u^8+3u^7+3u^5-u^4+u^3+2u^2+1)$ $\cdot(u^{67}+3u^{66}+\cdots+82237u+97193)$
c_{10}, c_{11}	$(u^{13}+10u^{11}+38u^9+68u^7+57u^5-u^4+18u^3-3u^2-1)$ $\cdot(u^{67}+u^{66}+\cdots+15u-1)$
c_{12}	$(u^{13}+u^{12}+\cdots+u+1)(u^{67}-18u^{65}+\cdots+34u-29)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{13}+8y^{11}+\cdots-2y^2-1)(y^{67}+5y^{66}+\cdots-3199y-169)$
c_2, c_7	$(y^{13}-13y^{12}+\cdots+9y-1)(y^{67}-56y^{66}+\cdots+1949858y-100489)$
c_3	$(y^{13}+4y^{12}+\cdots-4y-1)(y^{67}+5y^{66}+\cdots+13y-1)$
c_4, c_5, c_6 c_{10}, c_{11}	$(y^{13}+20y^{12}+\cdots-6y-1)(y^{67}+93y^{66}+\cdots+75y-1)$
c_8, c_{12}	$(y^{13}-9y^{12}+\cdots+13y-1)(y^{67}-36y^{66}+\cdots+4694y-841)$
c_9	$(y^{13}+4y^{12}+\cdots-4y-1)$ $\cdot(y^{67}-31y^{66}+\cdots+176544321833y-9446479249)$