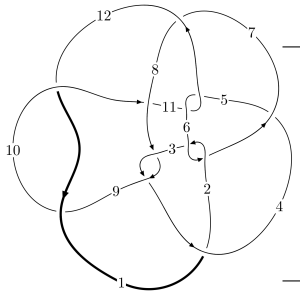
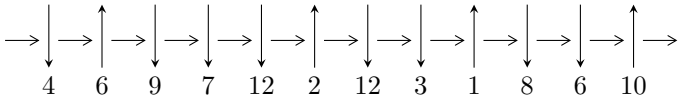
$12n_{0762}$ $(K12n_{0762})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -6.39438 \times 10^{155} u^{61} - 1.83142 \times 10^{156} u^{60} + \cdots + 1.27661 \times 10^{155} b + 4.88446 \times 10^{156}, \\ & - 4.08969 \times 10^{156} u^{61} - 1.17222 \times 10^{157} u^{60} + \cdots + 1.27661 \times 10^{155} a + 3.11795 \times 10^{157}, \\ & u^{62} + 3u^{61} + \cdots - 18u - 1 \rangle \\ I_2^u = \langle & -4390048992 u^{27} + 17294455334 u^{26} + \cdots + 1052877967 b - 16499967912, \\ & - 1778777089 u^{27} + 10103913125 u^{26} + \cdots + 1052877967 a - 14753500781, \\ & u^{28} - 2u^{27} + \cdots - 3u - 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 90 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. $\boldsymbol{I_1^u = \langle -6.39 \times 10^{155} u^{61} - 1.83 \times 10^{156} u^{60} + \cdots + 1.28 \times 10^{155} b + 4.88 \times 10^{156},\ -4.09 \times 10^{156} u^{61} - 1.17 \times 10^{157} u^{60} + \cdots + 1.28 \times 10^{155} a + 3.12 \times 10^{157},\ u^{62} + 3u^{61} + \cdots - 18u - 1 \rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

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

$$a_7 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 32.0357u^{61} + 91.8228u^{60} + \cdots - 2497.42u - 244.237 \\ 5.00889u^{61} + 14.3460u^{60} + \cdots - 387.238u - 38.2613 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -5.65842u^{61} - 16.2812u^{60} + \cdots + 456.306u + 40.1573 \\ 3.01761u^{61} + 8.66285u^{60} + \cdots - 242.152u - 24.6253 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -8.58616u^{61} - 24.6845u^{60} + \cdots + 691.623u + 64.0885 \\ 3.06626u^{61} + 8.80184u^{60} + \cdots - 246.062u - 25.0051 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1.10750u^{61} + 3.21521u^{60} + \cdots - 87.7707u - 3.39247 \\ -4.55092u^{61} - 13.0660u^{60} + \cdots + 368.535u + 36.7648 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1.01763u^{61} + 2.95572u^{60} + \cdots - 80.9356u - 2.69839 \\ -4.64079u^{61} - 13.3255u^{60} + \cdots + 375.370u + 37.4589 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 14.0757u^{61} + 40.4062u^{60} + \cdots - 1167.51u - 118.139 \\ 3.44249u^{61} + 9.89638u^{60} + \cdots - 294.292u - 28.6685 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 32.0357u^{61} + 91.8228u^{60} + \cdots - 2497.42u - 244.237 \\ 4.46323u^{61} + 12.7861u^{60} + \cdots - 342.159u - 33.9771 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 18.5714u^{61} + 53.2721u^{60} + \cdots - 1400.80u - 141.560 \\ -0.0553237u^{61} - 0.161959u^{60} + \cdots + 11.9855u - 0.335246 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -5.41881u^{61} - 15.7513u^{60} + \cdots + 462.106u + 47.0844$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{62} - 8u^{61} + \cdots - 14573u - 2354$
c_2, c_6	$u^{62} - 3u^{61} + \cdots + 18u - 1$
c_3, c_8	$u^{62} - u^{61} + \cdots - 1064u + 127$
c_4	$u^{62} - 7u^{61} + \cdots + 2345u - 631$
c_5, c_{11}	$u^{62} - u^{61} + \cdots - 67775u + 24008$
c_7	$u^{62} + 3u^{61} + \cdots - 11203u + 18287$
c_9, c_{12}	$u^{62} + 5u^{61} + \cdots + 7u + 1$
c_{10}	$u^{62} - 13u^{61} + \cdots + 690763u - 71359$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{62} - 30y^{61} + \cdots + 87051763y + 5541316$
c_2, c_6	$y^{62} + 59y^{61} + \cdots - 98y + 1$
c_3, c_8	$y^{62} - 57y^{61} + \cdots - 252240y + 16129$
c_4	$y^{62} - 95y^{61} + \cdots - 19707883y + 398161$
c_5, c_{11}	$y^{62} - 99y^{61} + \cdots - 7503268241y + 576384064$
c_7	$y^{62} - 89y^{61} + \cdots - 6246385553y + 334414369$
c_9, c_{12}	$y^{62} + 51y^{61} + \cdots - 37y + 1$
c_{10}	$y^{62} - 81y^{61} + \cdots + 2924033206473y + 5092106881$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.333052+0.944555I$ $a=\ \ 0.389031-0.384339I$ $b=-0.154212-0.620844I$	$-0.62353-1.46430I$	0
$u=-0.333052-0.944555I$ $a=\ \ 0.389031+0.384339I$ $b=-0.154212+0.620844I$	$-0.62353+1.46430I$	0
$u=\ \ 0.832713+0.485235I$ $a=-0.254095+0.534839I$ $b=-0.07870+1.70723I$	$0.80228+3.34364I$	0
$u=\ \ 0.832713-0.485235I$ $a=-0.254095-0.534839I$ $b=-0.07870-1.70723I$	$0.80228-3.34364I$	0
$u=-0.589027+0.853031I$ $a=\ \ 0.727906+0.227126I$ $b=\ \ 0.309790-0.219659I$	$-0.90701-2.10996I$	0
$u=-0.589027-0.853031I$ $a=\ \ 0.727906-0.227126I$ $b=\ \ 0.309790+0.219659I$	$-0.90701+2.10996I$	0
$u=-0.183155+1.090710I$ $a=-0.870044+0.673371I$ $b=-0.590651+1.128490I$	$-4.41723-3.27563I$	0
$u=-0.183155-1.090710I$ $a=-0.870044-0.673371I$ $b=-0.590651-1.128490I$	$-4.41723+3.27563I$	0
$u=-0.958678+0.626520I$ $a=\ \ 0.093398-0.975017I$ $b=-0.24619-1.53004I$	$0.14869-2.80498I$	0
$u=-0.958678-0.626520I$ $a=\ \ 0.093398+0.975017I$ $b=-0.24619+1.53004I$	$0.14869+2.80498I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.807646 + 0.092651I$ $a = -0.386650 + 0.557445I$ $b = 0.224777 - 0.223097I$	$-5.34851 - 2.44220I$	0
$u = 0.807646 - 0.092651I$ $a = -0.386650 - 0.557445I$ $b = 0.224777 + 0.223097I$	$-5.34851 + 2.44220I$	0
$u = 0.770858$ $a = 1.84196$ $b = -0.196952$	-3.55600	0
$u = -0.350668 + 1.211440I$ $a = -0.074129 + 0.331633I$ $b = 1.006790 + 0.617776I$	$-3.91833 - 0.86784I$	0
$u = -0.350668 - 1.211440I$ $a = -0.074129 - 0.331633I$ $b = 1.006790 - 0.617776I$	$-3.91833 + 0.86784I$	0
$u = 0.066377 + 0.729220I$ $a = 0.474227 - 0.548295I$ $b = -0.416502 - 0.022118I$	$-0.903631 - 1.036690I$	$-6.98552 + 4.12911I$
$u = 0.066377 - 0.729220I$ $a = 0.474227 + 0.548295I$ $b = -0.416502 + 0.022118I$	$-0.903631 + 1.036690I$	$-6.98552 - 4.12911I$
$u = 0.454755 + 1.195890I$ $a = -0.313664 + 0.218835I$ $b = -0.336580 + 0.566077I$	$-4.85375 + 4.25052I$	0
$u = 0.454755 - 1.195890I$ $a = -0.313664 - 0.218835I$ $b = -0.336580 - 0.566077I$	$-4.85375 - 4.25052I$	0
$u = 0.698392 + 0.177356I$ $a = -1.92419 + 0.75830I$ $b = 0.236377 + 0.216993I$	$-7.74561 + 4.18757I$	$-4.00000 - 3.79519I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.698392 - 0.177356I$ $a = -1.92419 - 0.75830I$ $b = 0.236377 - 0.216993I$	$-7.74561 - 4.18757I$	$-4.00000 + 3.79519I$
$u = 0.459690 + 1.195230I$ $a = 0.548483 + 0.114412I$ $b = 0.911400 - 0.215151I$	$-8.60885 + 7.03690I$	0
$u = 0.459690 - 1.195230I$ $a = 0.548483 - 0.114412I$ $b = 0.911400 + 0.215151I$	$-8.60885 - 7.03690I$	0
$u = 0.435856 + 1.211820I$ $a = 0.098938 - 0.576576I$ $b = -0.278422 - 1.000790I$	$-9.25216 + 1.84332I$	0
$u = 0.435856 - 1.211820I$ $a = 0.098938 + 0.576576I$ $b = -0.278422 + 1.000790I$	$-9.25216 - 1.84332I$	0
$u = 0.696310$ $a = 0.539160$ $b = -0.210110$	-1.50281	-7.64330
$u = 0.12810 + 1.44057I$ $a = 0.39257 + 1.87823I$ $b = 0.23423 + 2.96746I$	$-15.6787 + 2.6099I$	0
$u = 0.12810 - 1.44057I$ $a = 0.39257 - 1.87823I$ $b = 0.23423 - 2.96746I$	$-15.6787 - 2.6099I$	0
$u = 0.28124 + 1.49021I$ $a = 0.29340 - 1.43793I$ $b = 0.35314 - 2.63889I$	$-12.38030 - 0.46591I$	0
$u = 0.28124 - 1.49021I$ $a = 0.29340 + 1.43793I$ $b = 0.35314 + 2.63889I$	$-12.38030 + 0.46591I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.14213 + 1.52049I$ $a = -0.27464 - 1.43449I$ $b = 0.01746 - 2.61143I$	$-12.42090 + 1.93692I$	0
$u = 0.14213 - 1.52049I$ $a = -0.27464 + 1.43449I$ $b = 0.01746 + 2.61143I$	$-12.42090 - 1.93692I$	0
$u = 0.26991 + 1.53473I$ $a = -0.180066 + 1.299350I$ $b = -0.17141 + 2.61130I$	$-9.12418 + 3.84227I$	0
$u = 0.26991 - 1.53473I$ $a = -0.180066 - 1.299350I$ $b = -0.17141 - 2.61130I$	$-9.12418 - 3.84227I$	0
$u = -0.08283 + 1.56880I$ $a = -1.068300 - 0.728241I$ $b = -0.589996 - 1.278450I$	$-9.51760 + 5.08658I$	0
$u = -0.08283 - 1.56880I$ $a = -1.068300 + 0.728241I$ $b = -0.589996 + 1.278450I$	$-9.51760 - 5.08658I$	0
$u = 0.27775 + 1.56012I$ $a = 0.132678 - 1.236370I$ $b = 0.09558 - 2.68981I$	$-13.8317 + 7.8929I$	0
$u = 0.27775 - 1.56012I$ $a = 0.132678 + 1.236370I$ $b = 0.09558 + 2.68981I$	$-13.8317 - 7.8929I$	0
$u = 0.15046 + 1.60424I$ $a = 0.160295 + 1.146520I$ $b = -0.31811 + 2.51871I$	$-17.6021 + 1.1585I$	0
$u = 0.15046 - 1.60424I$ $a = 0.160295 - 1.146520I$ $b = -0.31811 - 2.51871I$	$-17.6021 - 1.1585I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.341402 + 0.171738I$ $a = 4.13096 - 1.61392I$ $b = 0.675184 - 0.592840I$	$-11.05090 - 0.90973I$	$-10.78531 - 1.39456I$
$u = 0.341402 - 0.171738I$ $a = 4.13096 + 1.61392I$ $b = 0.675184 + 0.592840I$	$-11.05090 + 0.90973I$	$-10.78531 + 1.39456I$
$u = 0.03842 + 1.63568I$ $a = -0.527691 - 0.462807I$ $b = 0.451791 - 1.092900I$	$-10.48550 - 5.71222I$	0
$u = 0.03842 - 1.63568I$ $a = -0.527691 + 0.462807I$ $b = 0.451791 + 1.092900I$	$-10.48550 + 5.71222I$	0
$u = 0.359374$ $a = -4.34971$ $b = -0.676883$	-6.85123	-16.8270
$u = -1.63565 + 0.23135I$ $a = -1.293770 - 0.085038I$ $b = -0.0375020 + 0.0652272I$	$-14.1359 - 7.0273I$	0
$u = -1.63565 - 0.23135I$ $a = -1.293770 + 0.085038I$ $b = -0.0375020 - 0.0652272I$	$-14.1359 + 7.0273I$	0
$u = -0.02899 + 1.68061I$ $a = 0.815326 + 0.498354I$ $b = 0.070018 + 1.005780I$	$-5.54238 - 0.38545I$	0
$u = -0.02899 - 1.68061I$ $a = 0.815326 - 0.498354I$ $b = 0.070018 - 1.005780I$	$-5.54238 + 0.38545I$	0
$u = -0.280510 + 0.151518I$ $a = -0.50395 - 2.20616I$ $b = -0.683528 - 0.071725I$	$-0.97360 - 1.69901I$	$-2.82413 + 3.98750I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.280510-0.151518I$ $a=-0.50395+2.20616I$ $b=-0.683528+0.071725I$	$-0.97360+1.69901I$	$-2.82413-3.98750I$
$u=-0.63741+1.66286I$ $a=\ \ 0.172192+1.286190I$ $b=\ \ 0.29163+2.50361I$	$19.3723-14.9543I$	0
$u=-0.63741-1.66286I$ $a=\ \ 0.172192-1.286190I$ $b=\ \ 0.29163-2.50361I$	$19.3723+14.9543I$	0
$u=-1.82775$ $a=\ \ 1.25873$ $b=\ \ 0.0527036$	-9.14724	0
$u=-0.1296520+0.0012514I$ $a=-0.05922-4.98520I$ $b=\ \ 1.113010-0.819545I$	$1.23431-1.93321I$	$3.80958+0.69705I$
$u=-0.1296520-0.0012514I$ $a=-0.05922+4.98520I$ $b=\ \ 1.113010+0.819545I$	$1.23431+1.93321I$	$3.80958-0.69705I$
$u=-0.0707850+0.0951134I$ $a=-3.35295+6.50987I$ $b=-1.65303+0.74429I$	$-3.99047-6.24706I$	$-0.93942+7.90678I$
$u=-0.0707850-0.0951134I$ $a=-3.35295-6.50987I$ $b=-1.65303-0.74429I$	$-3.99047+6.24706I$	$-0.93942-7.90678I$
$u=-0.70822+1.75594I$ $a=-0.122804-1.218420I$ $b=-0.26978-2.37851I$	$-14.8352-9.0166I$	0
$u=-0.70822-1.75594I$ $a=-0.122804+1.218420I$ $b=-0.26978+2.37851I$	$-14.8352+9.0166I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.89562+1.71883I$ $a=\quad 0.131696+1.125940I$ $b=\quad 0.34909+2.24166I$	$-18.4977-2.0999I$	0
$u=-0.89562-1.71883I$ $a=\quad 0.131696-1.125940I$ $b=\quad 0.34909-2.24166I$	$-18.4977+2.0999I$	0

II.

$\boldsymbol{I_2^u = \langle -4.39\times 10^9 u^{27} + 1.73\times 10^{10} u^{26} + \cdots + 1.05\times 10^9 b - 1.65\times 10^{10},\ -1.78\times 10^9 u^{27} + 1.01\times 10^{10} u^{26} + \cdots + 1.05\times 10^9 a - 1.48\times 10^{10},\ u^{28} - 2u^{27} + \cdots - 3u - 1\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

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

$$a_7 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1.68944u^{27} - 9.59647u^{26} + \cdots + 24.1792u + 14.0125 \\ 4.16957u^{27} - 16.4259u^{26} + \cdots + 32.1745u + 15.6713 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -2.24104u^{27} + 7.12886u^{26} + \cdots - 3.77423u - 5.73930 \\ 2.94974u^{27} - 7.15613u^{26} + \cdots - 15.1617u - 2.88782 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -4.88782u^{27} + 13.7254u^{26} + \cdots + 5.68818u - 5.49827 \\ 2.90344u^{27} - 6.26923u^{26} + \cdots - 16.4238u - 4.19078 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.706864u^{27} + 0.0240004u^{26} + \cdots + 5.39279u + 5.52854 \\ -2.94790u^{27} + 7.15286u^{26} + \cdots + 1.61856u - 0.210764 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -1.00982u^{27} + 0.583605u^{26} + \cdots + 11.0921u + 8.17533 \\ -3.25085u^{27} + 7.71247u^{26} + \cdots + 7.31789u + 2.43602 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.0543874u^{27} + 4.91254u^{26} + \cdots - 27.6210u - 16.4249 \\ -0.355447u^{27} - 3.74364u^{26} + \cdots + 2.08328u - 0.417512 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1.68944u^{27} - 9.59647u^{26} + \cdots + 24.1792u + 14.0125 \\ 2.50358u^{27} - 14.8480u^{26} + \cdots + 49.1378u + 21.8889 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 6.69021u^{27} - 18.1519u^{26} + \cdots - 16.4160u - 3.40215 \\ 0.584244u^{27} - 13.8628u^{26} + \cdots + 64.1728u + 26.2558 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{2679606931}{1052877967}u^{27} - \frac{15977495031}{1052877967}u^{26} + \cdots + \frac{130752365383}{1052877967}u + \frac{40877254048}{1052877967}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{28} - 3u^{27} + \cdots - 23u - 1$
c_2	$u^{28} - 2u^{27} + \cdots - 3u - 1$
c_3	$u^{28} - 11u^{26} + \cdots - 3u + 9$
c_4	$u^{28} - 12u^{27} + \cdots - 334u + 61$
c_5	$u^{28} - 12u^{26} + \cdots - 15u - 9$
c_6	$u^{28} + 2u^{27} + \cdots + 3u - 1$
c_7	$u^{28} + 2u^{27} + \cdots - 2u - 1$
c_8	$u^{28} - 11u^{26} + \cdots + 3u + 9$
c_9	$u^{28} + 6u^{27} + \cdots + 40u + 7$
c_{10}	$u^{28} - 2u^{27} + \cdots - 22u - 1$
c_{11}	$u^{28} - 12u^{26} + \cdots + 15u - 9$
c_{12}	$u^{28} - 6u^{27} + \cdots - 40u + 7$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{28} - 3y^{27} + \cdots - 785y + 1$
c_2, c_6	$y^{28} + 18y^{27} + \cdots + 13y + 1$
c_3, c_8	$y^{28} - 22y^{27} + \cdots - 1017y + 81$
c_4	$y^{28} - 36y^{27} + \cdots + 37772y + 3721$
c_5, c_{11}	$y^{28} - 24y^{27} + \cdots + 1143y + 81$
c_7	$y^{28} - 18y^{27} + \cdots + 10y + 1$
c_9, c_{12}	$y^{28} + 22y^{27} + \cdots + 206y + 49$
c_{10}	$y^{28} - 22y^{27} + \cdots - 84y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.828405+0.452191I$ $a=\ \ 0.028306-0.670431I$ $b=\ \ 0.05021-1.69084I$	$1.19357-3.29942I$	$7.01162+4.13444I$
$u=-0.828405-0.452191I$ $a=\ \ 0.028306+0.670431I$ $b=\ \ 0.05021+1.69084I$	$1.19357+3.29942I$	$7.01162-4.13444I$
$u=-0.244046+1.060440I$ $a=-0.504268+0.829036I$ $b=\ \ 0.360086+1.027120I$	$-3.07097-2.47420I$	$-8.69591+2.72420I$
$u=-0.244046-1.060440I$ $a=-0.504268-0.829036I$ $b=\ \ 0.360086-1.027120I$	$-3.07097+2.47420I$	$-8.69591-2.72420I$
$u=\ \ 0.440560+0.777431I$ $a=-0.85713+1.51445I$ $b=-0.300793+0.409666I$	$-11.55490+2.10708I$	$-14.0670-3.9463I$
$u=\ \ 0.440560-0.777431I$ $a=-0.85713-1.51445I$ $b=-0.300793-0.409666I$	$-11.55490-2.10708I$	$-14.0670+3.9463I$
$u=-0.181263+0.870571I$ $a=-0.625474-0.654885I$ $b=-1.36669-0.40888I$	$-2.30932+0.72869I$	$-9.84041-0.97767I$
$u=-0.181263-0.870571I$ $a=-0.625474+0.654885I$ $b=-1.36669+0.40888I$	$-2.30932-0.72869I$	$-9.84041+0.97767I$
$u=\ \ 0.868921$ $a=\ \ 2.03119$ $b=\ \ 0.370017$	-6.20668	-3.53400
$u=-0.464589+1.065340I$ $a=\ \ 0.498147-0.250055I$ $b=-0.298592-0.642842I$	$-0.928502-0.756039I$	$-7.92403-2.74336I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.464589-1.065340I$ $a=\ \ 0.498147+0.250055I$ $b=-0.298592+0.642842I$	$-0.928502+0.756039I$	$-7.92403+2.74336I$
$u=-0.193282+0.717392I$ $a=\ \ 0.726013-0.070993I$ $b=\ \ 1.250320-0.616788I$	$0.70335-2.38577I$	$-5.36948+6.65379I$
$u=-0.193282-0.717392I$ $a=\ \ 0.726013+0.070993I$ $b=\ \ 1.250320+0.616788I$	$0.70335+2.38577I$	$-5.36948-6.65379I$
$u=\ \ 0.311418+1.272500I$ $a=-0.759828-0.331562I$ $b=-0.314202+0.008550I$	$-7.48839+7.54015I$	$-7.59672-6.45984I$
$u=\ \ 0.311418-1.272500I$ $a=-0.759828+0.331562I$ $b=-0.314202-0.008550I$	$-7.48839-7.54015I$	$-7.59672+6.45984I$
$u=\ \ 0.003913+0.661555I$ $a=-1.182080+0.471507I$ $b=-1.88693+1.20938I$	$-4.54720-6.17336I$	$-15.2173+5.6644I$
$u=\ \ 0.003913-0.661555I$ $a=-1.182080-0.471507I$ $b=-1.88693-1.20938I$	$-4.54720+6.17336I$	$-15.2173-5.6644I$
$u=\ \ 1.325390+0.413589I$ $a=-0.144604+0.859044I$ $b=-0.27440+1.56013I$	$-0.99658+3.41956I$	$-11.11044-4.64179I$
$u=\ \ 1.325390-0.413589I$ $a=-0.144604-0.859044I$ $b=-0.27440-1.56013I$	$-0.99658-3.41956I$	$-11.11044+4.64179I$
$u=-0.258149+0.502688I$ $a=-0.38944-2.12090I$ $b=\ \ 0.930879+0.071120I$	$-8.76882-4.01982I$	$-13.72838+2.52464I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.258149-0.502688I$ $a=-0.38944+2.12090I$ $b=\ \ 0.930879-0.071120I$	$-8.76882+4.01982I$	$-13.72838-2.52464I$
$u=\ \ 0.56341+1.32038I$ $a=\ \ 0.654369-0.176621I$ $b=\ \ 0.154007-0.126542I$	$-4.61292+3.39320I$	$-8.40856+0.I$
$u=\ \ 0.56341-1.32038I$ $a=\ \ 0.654369+0.176621I$ $b=\ \ 0.154007+0.126542I$	$-4.61292-3.39320I$	$-8.40856+0.I$
$u=\ \ 0.27803+1.44237I$ $a=-0.07083-1.57790I$ $b=\ \ 0.21421-2.70805I$	$-14.3357+1.1241I$	$-11.79638+0.I$
$u=\ \ 0.27803-1.44237I$ $a=-0.07083+1.57790I$ $b=\ \ 0.21421+2.70805I$	$-14.3357-1.1241I$	$-11.79638+0.I$
$u=-0.471793$ $a=\ \ 2.53420$ $b=-0.699654$	-4.37150	-10.4710
$u=\ \ 0.04846+1.54491I$ $a=\ \ 0.34412+1.45356I$ $b=\ \ 0.14671+2.63714I$	$-13.66150+2.95733I$	$-11.75419-3.36100I$
$u=\ \ 0.04846-1.54491I$ $a=\ \ 0.34412-1.45356I$ $b=\ \ 0.14671-2.63714I$	$-13.66150-2.95733I$	$-11.75419+3.36100I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{28}-3u^{27}+\cdots-23u-1)(u^{62}-8u^{61}+\cdots-14573u-2354)$
c_2	$(u^{28}-2u^{27}+\cdots-3u-1)(u^{62}-3u^{61}+\cdots+18u-1)$
c_3	$(u^{28}-11u^{26}+\cdots-3u+9)(u^{62}-u^{61}+\cdots-1064u+127)$
c_4	$(u^{28}-12u^{27}+\cdots-334u+61)(u^{62}-7u^{61}+\cdots+2345u-631)$
c_5	$(u^{28}-12u^{26}+\cdots-15u-9)(u^{62}-u^{61}+\cdots-67775u+24008)$
c_6	$(u^{28}+2u^{27}+\cdots+3u-1)(u^{62}-3u^{61}+\cdots+18u-1)$
c_7	$(u^{28}+2u^{27}+\cdots-2u-1)(u^{62}+3u^{61}+\cdots-11203u+18287)$
c_8	$(u^{28}-11u^{26}+\cdots+3u+9)(u^{62}-u^{61}+\cdots-1064u+127)$
c_9	$(u^{28}+6u^{27}+\cdots+40u+7)(u^{62}+5u^{61}+\cdots+7u+1)$
c_{10}	$(u^{28}-2u^{27}+\cdots-22u-1)(u^{62}-13u^{61}+\cdots+690763u-71359)$
c_{11}	$(u^{28}-12u^{26}+\cdots+15u-9)(u^{62}-u^{61}+\cdots-67775u+24008)$
c_{12}	$(u^{28}-6u^{27}+\cdots-40u+7)(u^{62}+5u^{61}+\cdots+7u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{28} - 3y^{27} + \cdots - 785y + 1)$ $\cdot (y^{62} - 30y^{61} + \cdots + 87051763y + 5541316)$
c_2, c_6	$(y^{28} + 18y^{27} + \cdots + 13y + 1)(y^{62} + 59y^{61} + \cdots - 98y + 1)$
c_3, c_8	$(y^{28} - 22y^{27} + \cdots - 1017y + 81)$ $\cdot (y^{62} - 57y^{61} + \cdots - 252240y + 16129)$
c_4	$(y^{28} - 36y^{27} + \cdots + 37772y + 3721)$ $\cdot (y^{62} - 95y^{61} + \cdots - 19707883y + 398161)$
c_5, c_{11}	$(y^{28} - 24y^{27} + \cdots + 1143y + 81)$ $\cdot (y^{62} - 99y^{61} + \cdots - 7503268241y + 576384064)$
c_7	$(y^{28} - 18y^{27} + \cdots + 10y + 1)$ $\cdot (y^{62} - 89y^{61} + \cdots - 6246385553y + 334414369)$
c_9, c_{12}	$(y^{28} + 22y^{27} + \cdots + 206y + 49)(y^{62} + 51y^{61} + \cdots - 37y + 1)$
c_{10}	$(y^{28} - 22y^{27} + \cdots - 84y + 1)$ $\cdot (y^{62} - 81y^{61} + \cdots + 2924033206473y + 5092106881)$