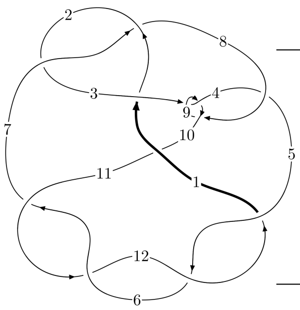
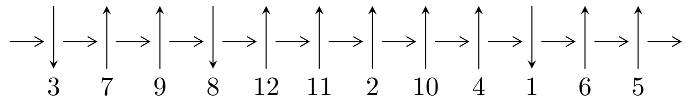
$12a_{0566}$ ($K12a_{0566}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 1.48359 \times 10^{42} u^{84} + 1.49960 \times 10^{42} u^{83} + \cdots + 3.29594 \times 10^{42} b - 1.20784 \times 10^{43}, \\ & 2.21165 \times 10^{41} u^{84} + 2.55434 \times 10^{41} u^{83} + \cdots + 8.23985 \times 10^{41} a + 1.14680 \times 10^{42},\ u^{85} + u^{84} + \cdots + 5u + 1 \rangle \\ I_2^u = \langle & -u^2 a + u^3 + b - a + 3u,\ -2u^3 a + u^3 + a^2 - 8au - a + 4u - 4,\ u^4 + 3u^2 + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 93 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.

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$\boldsymbol{I_1^u = \langle 1.48\times10^{42}u^{84}+1.50\times10^{42}u^{83}+\cdots+3.30\times10^{42}b-1.21\times10^{43},\ 2.21\times10^{41}u^{84}+2.55\times10^{41}u^{83}+\cdots+8.24\times10^{41}a+1.15\times10^{42},\ u^{85}+u^{84}+\cdots+5u+1\rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_5 = \begin{pmatrix}1\\u^2\end{pmatrix}$$
$$a_1 = \begin{pmatrix}u\\u^3+u\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-u\\u\end{pmatrix}$$
$$a_2 = \begin{pmatrix}-0.268409u^{84}-0.309998u^{83}+\cdots-2.53477u-1.39178\\-0.450127u^{84}-0.454986u^{83}+\cdots+16.2601u+3.66462\end{pmatrix}$$
$$a_7 = \begin{pmatrix}u^2+1\\-u^2\end{pmatrix}$$
$$a_3 = \begin{pmatrix}0.706834u^{84}+0.799119u^{83}+\cdots+14.4948u+2.69792\\0.649070u^{84}+0.131711u^{83}+\cdots+16.4414u+3.28599\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-4.29653u^{84}-2.10680u^{83}+\cdots-24.9777u+0.363311\\0.945075u^{84}-0.221620u^{83}+\cdots+0.773811u+0.688980\end{pmatrix}$$
$$a_4 = \begin{pmatrix}3.13890u^{84}+2.19012u^{83}+\cdots+23.1159u+1.31435\\1.00849u^{84}-0.279889u^{83}+\cdots-14.1954u-4.54399\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}u^5+2u^3-u\\u^7+3u^5+2u^3+u\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-2.98788u^{84}-2.09995u^{83}+\cdots-26.9778u-1.05953\\-0.483470u^{84}-0.327238u^{83}+\cdots+1.60308u+1.52630\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 3.44824u^{84}+3.41811u^{83}+\cdots+56.6384u+20.3411$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{85} + 43u^{84} + \cdots + 72u - 16$
c_2, c_7	$u^{85} + u^{84} + \cdots - 12u - 4$
c_3, c_9	$u^{85} + u^{84} + \cdots - u - 5$
c_4	$u^{85} + 3u^{84} + \cdots - 6487u - 28835$
c_5, c_6, c_{11} c_{12}	$u^{85} - u^{84} + \cdots + 5u - 1$
c_8	$u^{85} - 41u^{84} + \cdots + 131u - 25$
c_{10}	$u^{85} - 23u^{84} + \cdots + 41u - 283$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{85} + 7y^{84} + \cdots + 31264y - 256$
c_2, c_7	$y^{85} + 43y^{84} + \cdots + 72y - 16$
c_3, c_9	$y^{85} - 41y^{84} + \cdots + 131y - 25$
c_4	$y^{85} + 19y^{84} + \cdots - 11204895241y - 831457225$
c_5, c_6, c_{11} c_{12}	$y^{85} + 99y^{84} + \cdots - 9y - 1$
c_8	$y^{85} + 11y^{84} + \cdots - 6589y - 625$
c_{10}	$y^{85} - 9y^{84} + \cdots + 1664023y - 80089$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.269016+0.961532I$ $a=1.34501+0.86076I$ $b=-0.677659+0.501079I$	$-1.44363+5.72996I$	0
$u=-0.269016-0.961532I$ $a=1.34501-0.86076I$ $b=-0.677659-0.501079I$	$-1.44363-5.72996I$	0
$u=-0.015593+0.966863I$ $a=0.574880+0.741720I$ $b=-0.201759+0.491321I$	$-0.320817-1.348260I$	0
$u=-0.015593-0.966863I$ $a=0.574880-0.741720I$ $b=-0.201759-0.491321I$	$-0.320817+1.348260I$	0
$u=-0.547823+0.722739I$ $a=-1.92103-1.40701I$ $b=0.484593-0.384674I$	$0.66837-12.95260I$	0
$u=-0.547823-0.722739I$ $a=-1.92103+1.40701I$ $b=0.484593+0.384674I$	$0.66837+12.95260I$	0
$u=0.244367+0.865284I$ $a=-1.22863+1.21755I$ $b=0.628112+0.266767I$	$-3.62434-1.21550I$	0
$u=0.244367-0.865284I$ $a=-1.22863-1.21755I$ $b=0.628112-0.266767I$	$-3.62434+1.21550I$	0
$u=0.519121+0.704971I$ $a=1.90749-1.30014I$ $b=-0.328379-0.431956I$	$-1.71613+7.78904I$	0
$u=0.519121-0.704971I$ $a=1.90749+1.30014I$ $b=-0.328379+0.431956I$	$-1.71613-7.78904I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.539376 + 0.649975I$ $a = 0.680041 + 0.389729I$ $b = -0.387247 + 0.236701I$	$3.03875 + 7.48933I$	0
$u = 0.539376 - 0.649975I$ $a = 0.680041 - 0.389729I$ $b = -0.387247 - 0.236701I$	$3.03875 - 7.48933I$	0
$u = -0.546508 + 0.643529I$ $a = -1.67110 - 1.27874I$ $b = 0.206900 - 0.158340I$	$3.10332 - 4.91778I$	0
$u = -0.546508 - 0.643529I$ $a = -1.67110 + 1.27874I$ $b = 0.206900 + 0.158340I$	$3.10332 + 4.91778I$	0
$u = -0.484151 + 0.617500I$ $a = -0.521809 + 0.347871I$ $b = 0.314853 + 0.334436I$	$0.50765 - 2.73435I$	$6.00000 + 0.I$
$u = -0.484151 - 0.617500I$ $a = -0.521809 - 0.347871I$ $b = 0.314853 - 0.334436I$	$0.50765 + 2.73435I$	$6.00000 + 0.I$
$u = 0.413512 + 0.660509I$ $a = 2.03352 - 0.95008I$ $b = 0.195673 - 0.590485I$	$-3.42447 + 5.19941I$	$0. - 9.00516I$
$u = 0.413512 - 0.660509I$ $a = 2.03352 + 0.95008I$ $b = 0.195673 + 0.590485I$	$-3.42447 - 5.19941I$	$0. + 9.00516I$
$u = 0.550405 + 0.534191I$ $a = 0.588864 + 0.053000I$ $b = -0.474416 + 0.464089I$	$4.58369 - 0.40025I$	$10.99009 + 0.I$
$u = 0.550405 - 0.534191I$ $a = 0.588864 - 0.053000I$ $b = -0.474416 - 0.464089I$	$4.58369 + 0.40025I$	$10.99009 + 0.I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.314976 + 0.689605I$ $a = -1.43860 + 1.93529I$ $b = 0.735061 - 0.199480I$	$-4.05679 - 0.01022I$	$-1.68650 - 2.48548I$
$u = 0.314976 - 0.689605I$ $a = -1.43860 - 1.93529I$ $b = 0.735061 + 0.199480I$	$-4.05679 + 0.01022I$	$-1.68650 + 2.48548I$
$u = -0.392985 + 0.613133I$ $a = 1.69591 + 2.23311I$ $b = -0.860634 - 0.456543I$	$-2.34167 - 4.34614I$	$3.43008 + 7.94130I$
$u = -0.392985 - 0.613133I$ $a = 1.69591 - 2.23311I$ $b = -0.860634 + 0.456543I$	$-2.34167 + 4.34614I$	$3.43008 - 7.94130I$
$u = -0.359208 + 0.617818I$ $a = -2.14589 - 0.65890I$ $b = -0.535781 - 0.510936I$	$-2.56438 - 0.05394I$	$2.49319 + 4.38221I$
$u = -0.359208 - 0.617818I$ $a = -2.14589 + 0.65890I$ $b = -0.535781 + 0.510936I$	$-2.56438 + 0.05394I$	$2.49319 - 4.38221I$
$u = 0.585676 + 0.405184I$ $a = 0.718348 - 0.889416I$ $b = 0.283524 + 0.302554I$	$4.96277 + 4.28677I$	$11.39976 - 6.82883I$
$u = 0.585676 - 0.405184I$ $a = 0.718348 + 0.889416I$ $b = 0.283524 - 0.302554I$	$4.96277 - 4.28677I$	$11.39976 + 6.82883I$
$u = -0.196837 + 0.670232I$ $a = -0.193639 + 0.601805I$ $b = 0.042269 + 0.380832I$	$-1.24323 - 1.82365I$	$3.45996 + 5.43784I$
$u = -0.196837 - 0.670232I$ $a = -0.193639 - 0.601805I$ $b = 0.042269 - 0.380832I$	$-1.24323 + 1.82365I$	$3.45996 - 5.43784I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.659136 + 0.185202I$ $a = 0.05845 - 1.55472I$ $b = 0.465484 + 1.313900I$	$2.25667 + 8.88522I$	$8.20811 - 6.10278I$
$u = -0.659136 - 0.185202I$ $a = 0.05845 + 1.55472I$ $b = 0.465484 - 1.313900I$	$2.25667 - 8.88522I$	$8.20811 + 6.10278I$
$u = -0.612889 + 0.281201I$ $a = -0.110132 - 0.982663I$ $b = 0.503598 + 1.053240I$	$4.16578 + 0.97431I$	$11.07134 + 0.36032I$
$u = -0.612889 - 0.281201I$ $a = -0.110132 + 0.982663I$ $b = 0.503598 - 1.053240I$	$4.16578 - 0.97431I$	$11.07134 - 0.36032I$
$u = 0.606559 + 0.273838I$ $a = 0.271560 - 0.649215I$ $b = 0.466788 + 0.311382I$	$4.14256 - 3.58567I$	$11.15367 + 1.13968I$
$u = 0.606559 - 0.273838I$ $a = 0.271560 + 0.649215I$ $b = 0.466788 - 0.311382I$	$4.14256 + 3.58567I$	$11.15367 - 1.13968I$
$u = 0.607167 + 0.185675I$ $a = -0.276334 - 1.351560I$ $b = -0.370556 + 1.231270I$	$-0.19692 - 3.95880I$	$5.21329 + 2.44859I$
$u = 0.607167 - 0.185675I$ $a = -0.276334 + 1.351560I$ $b = -0.370556 - 1.231270I$	$-0.19692 + 3.95880I$	$5.21329 - 2.44859I$
$u = -0.001468 + 1.366940I$ $a = 0.627049 + 0.005195I$ $b = -0.494432 + 0.813879I$	$-0.61240 - 1.33236I$	0
$u = -0.001468 - 1.366940I$ $a = 0.627049 - 0.005195I$ $b = -0.494432 - 0.813879I$	$-0.61240 + 1.33236I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.512315 + 0.314416I$ $a = -0.569207 - 0.470742I$ $b = -0.399479 + 0.238539I$	$1.39834 - 0.73943I$	$7.87386 + 3.67792I$
$u = -0.512315 - 0.314416I$ $a = -0.569207 + 0.470742I$ $b = -0.399479 - 0.238539I$	$1.39834 + 0.73943I$	$7.87386 - 3.67792I$
$u = 0.12437 + 1.43299I$ $a = 0.519499 - 0.493581I$ $b = -0.72793 + 1.70428I$	$-0.91192 + 6.79397I$	0
$u = 0.12437 - 1.43299I$ $a = 0.519499 + 0.493581I$ $b = -0.72793 - 1.70428I$	$-0.91192 - 6.79397I$	0
$u = -0.05687 + 1.44642I$ $a = -0.824931 - 0.226256I$ $b = 1.09810 + 1.10205I$	$-4.16478 - 2.54315I$	0
$u = -0.05687 - 1.44642I$ $a = -0.824931 + 0.226256I$ $b = 1.09810 - 1.10205I$	$-4.16478 + 2.54315I$	0
$u = 0.14350 + 1.53538I$ $a = -0.078894 + 0.187179I$ $b = -0.493019 - 0.204507I$	$-2.27580 + 2.04834I$	0
$u = 0.14350 - 1.53538I$ $a = -0.078894 - 0.187179I$ $b = -0.493019 + 0.204507I$	$-2.27580 - 2.04834I$	0
$u = -0.05600 + 1.54395I$ $a = -0.23000 + 2.11531I$ $b = 0.01046 - 4.55197I$	$-8.09582 + 0.73214I$	0
$u = -0.05600 - 1.54395I$ $a = -0.23000 - 2.11531I$ $b = 0.01046 + 4.55197I$	$-8.09582 - 0.73214I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.285398+0.344531I$ $a=\ \ 1.67817+3.05294I$ $b=-0.372607-0.839231I$	$-1.46071+1.72003I$	$7.87919+0.32865I$
$u=-0.285398-0.344531I$ $a=\ \ 1.67817-3.05294I$ $b=-0.372607+0.839231I$	$-1.46071-1.72003I$	$7.87919-0.32865I$
$u=\ \ 0.02780+1.55968I$ $a=-0.700925+1.104050I$ $b=\ \ 0.91776-1.54426I$	$-8.33632-2.21865I$	0
$u=\ \ 0.02780-1.55968I$ $a=-0.700925-1.104050I$ $b=\ \ 0.91776+1.54426I$	$-8.33632+2.21865I$	0
$u=-0.06585+1.57880I$ $a=\ \ 0.154107+0.916089I$ $b=\ \ 0.062457-1.376080I$	$-8.83591-2.80563I$	0
$u=-0.06585-1.57880I$ $a=\ \ 0.154107-0.916089I$ $b=\ \ 0.062457+1.376080I$	$-8.83591+2.80563I$	0
$u=-0.13776+1.57821I$ $a=-0.182103+0.360437I$ $b=\ \ 0.816779-0.596735I$	$-6.91236-4.99845I$	0
$u=-0.13776-1.57821I$ $a=-0.182103-0.360437I$ $b=\ \ 0.816779+0.596735I$	$-6.91236+4.99845I$	0
$u=-0.11131+1.58060I$ $a=-0.41436+2.41339I$ $b=-0.04646-4.81480I$	$-9.81048-6.18706I$	0
$u=-0.11131-1.58060I$ $a=-0.41436-2.41339I$ $b=-0.04646+4.81480I$	$-9.81048+6.18706I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.10182+1.58235I$ $a=-2.00225-2.08990I$ $b=3.40561+3.88332I$	$-10.07080-1.74204I$	0
$u=-0.10182-1.58235I$ $a=-2.00225+2.08990I$ $b=3.40561-3.88332I$	$-10.07080+1.74204I$	0
$u=-0.16062+1.58065I$ $a=-0.68149-2.27240I$ $b=1.42297+4.31766I$	$-4.36694-7.51892I$	0
$u=-0.16062-1.58065I$ $a=-0.68149+2.27240I$ $b=1.42297-4.31766I$	$-4.36694+7.51892I$	0
$u=0.15852+1.58458I$ $a=0.290858+0.225954I$ $b=-1.037120-0.437350I$	$-4.47968+10.06050I$	0
$u=0.15852-1.58458I$ $a=0.290858-0.225954I$ $b=-1.037120+0.437350I$	$-4.47968-10.06050I$	0
$u=0.11852+1.59189I$ $a=1.60651-2.45671I$ $b=-2.83027+4.48704I$	$-11.08450+7.16481I$	0
$u=0.11852-1.59189I$ $a=1.60651+2.45671I$ $b=-2.83027-4.48704I$	$-11.08450-7.16481I$	0
$u=0.387648+0.109053I$ $a=-1.68466-0.73928I$ $b=-0.018758+1.083720I$	$-1.97907-2.29985I$	$4.88318+3.39856I$
$u=0.387648-0.109053I$ $a=-1.68466+0.73928I$ $b=-0.018758-1.083720I$	$-1.97907+2.29985I$	$4.88318-3.39856I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.08984 + 1.59739I$ $a = 0.25529 + 2.42981I$ $b = 0.17555 - 4.73211I$	$-11.86500 + 1.49631I$	0
$u = 0.08984 - 1.59739I$ $a = 0.25529 - 2.42981I$ $b = 0.17555 + 4.73211I$	$-11.86500 - 1.49631I$	0
$u = 0.15414 + 1.60617I$ $a = 0.77240 - 2.77579I$ $b = -1.61416 + 5.04413I$	$-9.54162 + 10.30850I$	0
$u = 0.15414 - 1.60617I$ $a = 0.77240 + 2.77579I$ $b = -1.61416 - 5.04413I$	$-9.54162 - 10.30850I$	0
$u = -0.16479 + 1.61251I$ $a = -0.53819 - 2.86452I$ $b = 1.28223 + 5.19500I$	$-7.2310 - 15.6340I$	0
$u = -0.16479 - 1.61251I$ $a = -0.53819 + 2.86452I$ $b = 1.28223 - 5.19500I$	$-7.2310 + 15.6340I$	0
$u = 0.06386 + 1.64218I$ $a = -0.03654 + 2.49786I$ $b = 0.51461 - 4.55707I$	$-12.24450 - 0.05155I$	0
$u = 0.06386 - 1.64218I$ $a = -0.03654 - 2.49786I$ $b = 0.51461 + 4.55707I$	$-12.24450 + 0.05155I$	0
$u = -0.172519 + 0.303305I$ $a = 0.38817 + 1.99634I$ $b = -0.252299 + 0.998625I$	$-1.57085 - 2.23434I$	$7.54133 + 5.61184I$
$u = -0.172519 - 0.303305I$ $a = 0.38817 - 1.99634I$ $b = -0.252299 - 0.998625I$	$-1.57085 + 2.23434I$	$7.54133 - 5.61184I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.346155$ $a=-0.231708$ $b=-0.339336$	0.778740	13.6440
$u=-0.00938+1.65482I$ $a=0.19486+2.13079I$ $b=-0.47416-3.77161I$	$-9.25904-1.48114I$	0
$u=-0.00938-1.65482I$ $a=0.19486-2.13079I$ $b=-0.47416+3.77161I$	$-9.25904+1.48114I$	0
$u=-0.05603+1.66550I$ $a=0.20557+2.52921I$ $b=-0.76659-4.47074I$	$-10.52730+4.57594I$	0
$u=-0.05603-1.66550I$ $a=0.20557-2.52921I$ $b=-0.76659+4.47074I$	$-10.52730-4.57594I$	0

II.

$$\boldsymbol{I_2^u = \langle -u^2a+u^3+b-a+3u,\ -2u^3a+u^3+a^2-8au-a+4u-4,\ u^4+3u^2+1\rangle}$$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u \\ u^3+u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u \\ u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} a \\ u^2a-u^3+a-3u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^2+1 \\ -u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} a-u \\ u^2a-2u^3+a-4u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^3a+2au+u^2+1 \\ au+2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^3a-u^3+3au+u^2+a-4u+4 \\ u^2a-2u^3-au+u^2+a-3u-2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^3-2u \\ u^3+u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^2-2 \\ u^3a+2au+3u^2+4 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 4u^3-4a+16u$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u-1)^8$
c_2, c_7	$(u^2+1)^4$
c_3, c_4, c_9	$(u^4-u^2+1)^2$
c_5, c_6, c_{11} c_{12}	$(u^4+3u^2+1)^2$
c_8	$(u^2+u+1)^4$
c_{10}	$(u^2+u-1)^4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$(y-1)^8$
c_2, c_7	$(y+1)^8$
c_3, c_4, c_9	$(y^2-y+1)^4$
c_5, c_6, c_{11} c_{12}	$(y^2+3y+1)^4$
c_8	$(y^2+y+1)^4$
c_{10}	$(y^2-3y+1)^4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.618034I$ $a = 0.50000 + 1.37004I$ $b = 0.309017 - 0.771301I$	$-2.63189 - 2.02988I$	$-2.00000 + 3.46410I$
$u = 0.618034I$ $a = 0.50000 + 3.10209I$ $b = 0.309017 + 0.299165I$	$-2.63189 + 2.02988I$	$-2.00000 - 3.46410I$
$u = -0.618034I$ $a = 0.50000 - 1.37004I$ $b = 0.309017 + 0.771301I$	$-2.63189 + 2.02988I$	$-2.00000 - 3.46410I$
$u = -0.618034I$ $a = 0.50000 - 3.10209I$ $b = 0.309017 - 0.299165I$	$-2.63189 - 2.02988I$	$-2.00000 + 3.46410I$
$u = 1.61803I$ $a = 0.50000 + 1.37004I$ $b = -0.80902 - 2.83481I$	$-10.52760 - 2.02988I$	$-2.00000 + 3.46410I$
$u = 1.61803I$ $a = 0.50000 + 3.10209I$ $b = -0.80902 - 5.63733I$	$-10.52760 + 2.02988I$	$-2.00000 - 3.46410I$
$u = -1.61803I$ $a = 0.50000 - 1.37004I$ $b = -0.80902 + 2.83481I$	$-10.52760 + 2.02988I$	$-2.00000 - 3.46410I$
$u = -1.61803I$ $a = 0.50000 - 3.10209I$ $b = -0.80902 + 5.63733I$	$-10.52760 - 2.02988I$	$-2.00000 + 3.46410I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^8)(u^{85}+43u^{84}+\cdots+72u-16)$
c_2, c_7	$((u^2+1)^4)(u^{85}+u^{84}+\cdots-12u-4)$
c_3, c_9	$((u^4-u^2+1)^2)(u^{85}+u^{84}+\cdots-u-5)$
c_4	$((u^4-u^2+1)^2)(u^{85}+3u^{84}+\cdots-6487u-28835)$
c_5, c_6, c_{11} c_{12}	$((u^4+3u^2+1)^2)(u^{85}-u^{84}+\cdots+5u-1)$
c_8	$((u^2+u+1)^4)(u^{85}-41u^{84}+\cdots+131u-25)$
c_{10}	$((u^2+u-1)^4)(u^{85}-23u^{84}+\cdots+41u-283)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^8)(y^{85}+7y^{84}+\cdots+31264y-256)$
c_2, c_7	$((y+1)^8)(y^{85}+43y^{84}+\cdots+72y-16)$
c_3, c_9	$((y^2-y+1)^4)(y^{85}-41y^{84}+\cdots+131y-25)$
c_4	$((y^2-y+1)^4)(y^{85}+19y^{84}+\cdots-1.12049\times 10^{10}y-8.31457\times 10^{8})$
c_5, c_6, c_{11} c_{12}	$((y^2+3y+1)^4)(y^{85}+99y^{84}+\cdots-9y-1)$
c_8	$((y^2+y+1)^4)(y^{85}+11y^{84}+\cdots-6589y-625)$
c_{10}	$((y^2-3y+1)^4)(y^{85}-9y^{84}+\cdots+1664023y-80089)$