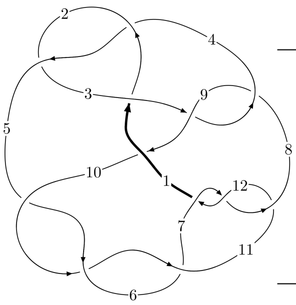
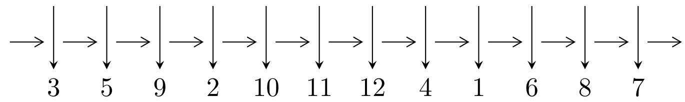
$12a_{0144}$ ($K12a_{0144}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -1.00279 \times 10^{169} u^{80} + 6.54285 \times 10^{169} u^{79} + \cdots + 5.58362 \times 10^{170} b - 5.37338 \times 10^{170}, \\ & 2.70498 \times 10^{170} u^{80} + 4.42960 \times 10^{170} u^{79} + \cdots + 1.67509 \times 10^{171} a + 1.36068 \times 10^{171},\ u^{81} + 2u^{80} + \cdots - 27u \end{aligned}$$

$$I_2^u = \langle b+1,\ a+1,\ u^6 - u^5 - 3u^4 + 2u^3 + 2u^2 + u - 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 87 representations.

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[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. $I^u_1 = \langle -1.00\times10^{169}u^{80} + 6.54\times10^{169}u^{79} + \cdots + 5.58\times10^{170}b - 5.37\times10^{170},\ 2.70\times10^{170}u^{80} + 4.43\times10^{170}u^{79} + \cdots + 1.68\times10^{171}a + 1.36\times10^{171},\ u^{81} + 2u^{80} + \cdots - 27u - 9\rangle$

(i) Arc colorings

$$a_5 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_6 = \begin{pmatrix}1\\u^2\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-u\\-u^3+u\end{pmatrix}$$
$$a_3 = \begin{pmatrix}-0.161483u^{80} - 0.264440u^{79} + \cdots - 4.05452u - 0.812307\\0.0179595u^{80} - 0.117179u^{79} + \cdots - 1.66032u + 0.962347\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-u^2+1\\-u^4+2u^2\end{pmatrix}$$
$$a_2 = \begin{pmatrix}-0.143524u^{80} - 0.381620u^{79} + \cdots - 5.71484u + 0.150039\\0.0179595u^{80} - 0.117179u^{79} + \cdots - 1.66032u + 0.962347\end{pmatrix}$$
$$a_1 = \begin{pmatrix}-0.428496u^{80} - 0.583915u^{79} + \cdots + 12.7602u + 6.52385\\-0.131228u^{80} - 0.0542263u^{79} + \cdots + 3.05402u + 0.800318\end{pmatrix}$$
$$a_4 = \begin{pmatrix}0.259446u^{80} + 0.204971u^{79} + \cdots - 18.6233u - 5.57768\\0.157772u^{80} + 0.183340u^{79} + \cdots - 4.83114u - 3.19296\end{pmatrix}$$
$$a_9 = \begin{pmatrix}0.111704u^{80} + 0.397558u^{79} + \cdots - 6.23678u - 4.64153\\0.0545258u^{80} + 0.0419649u^{79} + \cdots - 0.269902u - 0.998356\end{pmatrix}$$
$$a_8 = \begin{pmatrix}0.184153u^{80} + 0.220811u^{79} + \cdots - 11.7267u - 4.50953\\0.273077u^{80} + 0.267431u^{79} + \cdots - 5.04554u - 3.85646\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}-0.493301u^{80} - 0.569619u^{79} + \cdots + 16.6789u + 6.41142\\0.0147144u^{80} + 0.0729091u^{79} + \cdots + 0.464872u - 0.795811\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.191745u^{80} - 0.688940u^{79} + \cdots + 3.61897u - 7.41512$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{81} + 39u^{80} + \cdots + 52u + 1$
c_2, c_4	$u^{81} - 7u^{80} + \cdots + 2u + 1$
c_3, c_8	$u^{81} - u^{80} + \cdots + 64u + 64$
c_5, c_6, c_{10}	$u^{81} - 2u^{80} + \cdots - 27u + 9$
c_7, c_{11}, c_{12}	$u^{81} + 2u^{80} + \cdots + 3u + 1$
c_9	$u^{81} + 8u^{80} + \cdots - 3141u + 2537$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{81} + 13y^{80} + \cdots + 3164y - 1$
c_2, c_4	$y^{81} - 39y^{80} + \cdots + 52y - 1$
c_3, c_8	$y^{81} + 39y^{80} + \cdots - 40960y - 4096$
c_5, c_6, c_{10}	$y^{81} - 80y^{80} + \cdots - 693y - 81$
c_7, c_{11}, c_{12}	$y^{81} + 64y^{80} + \cdots + 11y - 1$
c_9	$y^{81} + 4y^{80} + \cdots + 43125951y - 6436369$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.549854 + 0.817265I$ $a = -0.668883 + 0.232142I$ $b = -1.240880 + 0.079920I$	$2.18909 - 2.68944I$	0
$u = 0.549854 - 0.817265I$ $a = -0.668883 - 0.232142I$ $b = -1.240880 - 0.079920I$	$2.18909 + 2.68944I$	0
$u = -0.423119 + 0.878378I$ $a = 0.92747 + 1.27632I$ $b = -0.735616 - 0.474491I$	$3.90058 + 0.83925I$	0
$u = -0.423119 - 0.878378I$ $a = 0.92747 - 1.27632I$ $b = -0.735616 + 0.474491I$	$3.90058 - 0.83925I$	0
$u = -0.629386 + 0.882957I$ $a = 0.11503 - 1.99991I$ $b = -0.920437 + 0.512641I$	$3.30143 + 4.94717I$	0
$u = -0.629386 - 0.882957I$ $a = 0.11503 + 1.99991I$ $b = -0.920437 - 0.512641I$	$3.30143 - 4.94717I$	0
$u = 0.871043 + 0.244839I$ $a = 0.226267 - 0.008099I$ $b = 0.923001 - 0.532162I$	$-1.18559 + 2.18588I$	0
$u = 0.871043 - 0.244839I$ $a = 0.226267 + 0.008099I$ $b = 0.923001 + 0.532162I$	$-1.18559 - 2.18588I$	0
$u = 0.285149 + 1.085700I$ $a = -0.262963 + 1.112650I$ $b = 1.035310 - 0.663440I$	$7.49110 + 4.12587I$	0
$u = 0.285149 - 1.085700I$ $a = -0.262963 - 1.112650I$ $b = 1.035310 + 0.663440I$	$7.49110 - 4.12587I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.404547 + 1.051810I$ $a = -0.220162 - 1.151750I$ $b = 0.573320 + 0.814273I$	$8.88154 - 1.39549I$	0
$u = 0.404547 - 1.051810I$ $a = -0.220162 + 1.151750I$ $b = 0.573320 - 0.814273I$	$8.88154 + 1.39549I$	0
$u = 0.669709 + 0.987448I$ $a = -0.659904 + 0.714844I$ $b = 0.453835 - 0.861154I$	$8.12466 - 5.17001I$	0
$u = 0.669709 - 0.987448I$ $a = -0.659904 - 0.714844I$ $b = 0.453835 + 0.861154I$	$8.12466 + 5.17001I$	0
$u = -0.743128 + 0.238456I$ $a = 0.936570 - 0.552245I$ $b = 0.670993 + 0.510713I$	$2.69972 + 1.11767I$	$-8.46846 - 0.34647I$
$u = -0.743128 - 0.238456I$ $a = 0.936570 + 0.552245I$ $b = 0.670993 - 0.510713I$	$2.69972 - 1.11767I$	$-8.46846 + 0.34647I$
$u = -0.528811 + 0.566420I$ $a = 0.30265 + 2.22515I$ $b = 1.101470 - 0.618329I$	$0.93164 + 8.30570I$	$-13.1243 - 9.3739I$
$u = -0.528811 - 0.566420I$ $a = 0.30265 - 2.22515I$ $b = 1.101470 + 0.618329I$	$0.93164 - 8.30570I$	$-13.1243 + 9.3739I$
$u = 0.761650 + 0.974344I$ $a = 0.37235 - 1.64135I$ $b = 1.113920 + 0.647715I$	$6.14001 - 10.75700I$	0
$u = 0.761650 - 0.974344I$ $a = 0.37235 + 1.64135I$ $b = 1.113920 - 0.647715I$	$6.14001 + 10.75700I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.245470 + 0.133358I$ $a = 0.291110 - 0.847829I$ $b = 0.746809 + 0.711067I$	$-0.83961 - 2.58594I$	0
$u = 1.245470 - 0.133358I$ $a = 0.291110 + 0.847829I$ $b = 0.746809 - 0.711067I$	$-0.83961 + 2.58594I$	0
$u = -1.202630 + 0.422167I$ $a = 0.159393 - 0.613266I$ $b = 0.866243 + 0.666328I$	$2.92901 + 1.26794I$	0
$u = -1.202630 - 0.422167I$ $a = 0.159393 + 0.613266I$ $b = 0.866243 - 0.666328I$	$2.92901 - 1.26794I$	0
$u = -0.434384 + 0.537078I$ $a = -1.142120 - 0.805181I$ $b = 0.438054 + 0.799462I$	$2.90437 + 2.98477I$	$-9.55591 - 5.23848I$
$u = -0.434384 - 0.537078I$ $a = -1.142120 + 0.805181I$ $b = 0.438054 - 0.799462I$	$2.90437 - 2.98477I$	$-9.55591 + 5.23848I$
$u = -1.312810 + 0.029010I$ $a = -0.553493 - 0.125261I$ $b = 0.324181 + 0.863693I$	$0.185868 + 1.219880I$	0
$u = -1.312810 - 0.029010I$ $a = -0.553493 + 0.125261I$ $b = 0.324181 - 0.863693I$	$0.185868 - 1.219880I$	0
$u = 1.359630 + 0.023425I$ $a = -0.90230 - 1.79054I$ $b = -1.053060 + 0.510916I$	$-4.34022 + 0.45005I$	0
$u = 1.359630 - 0.023425I$ $a = -0.90230 + 1.79054I$ $b = -1.053060 - 0.510916I$	$-4.34022 - 0.45005I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.364690 + 0.077002I$ $a = 1.17174 + 1.47880I$ $b = 1.160950 - 0.604080I$	$-2.30932 + 6.62917I$	0
$u = -1.364690 - 0.077002I$ $a = 1.17174 - 1.47880I$ $b = 1.160950 + 0.604080I$	$-2.30932 - 6.62917I$	0
$u = 0.457361 + 0.415520I$ $a = 0.10898 + 2.86219I$ $b = -0.946808 - 0.440327I$	$-1.58018 - 2.82736I$	$-15.3914 + 7.4030I$
$u = 0.457361 - 0.415520I$ $a = 0.10898 - 2.86219I$ $b = -0.946808 + 0.440327I$	$-1.58018 + 2.82736I$	$-15.3914 - 7.4030I$
$u = -1.383020 + 0.067923I$ $a = -1.162760 + 0.218155I$ $b = -1.266990 + 0.222352I$	$-5.03426 + 2.16541I$	0
$u = -1.383020 - 0.067923I$ $a = -1.162760 - 0.218155I$ $b = -1.266990 - 0.222352I$	$-5.03426 - 2.16541I$	0
$u = 1.378230 + 0.145858I$ $a = 0.679555 + 0.442834I$ $b = -0.377108 - 0.555718I$	$-2.43296 - 3.85164I$	0
$u = 1.378230 - 0.145858I$ $a = 0.679555 - 0.442834I$ $b = -0.377108 + 0.555718I$	$-2.43296 + 3.85164I$	0
$u = -0.327143 + 0.472697I$ $a = 0.912647 + 0.072753I$ $b = 0.063180 + 0.313296I$	$2.85428 + 1.54452I$	$-7.25846 - 4.25517I$
$u = -0.327143 - 0.472697I$ $a = 0.912647 - 0.072753I$ $b = 0.063180 - 0.313296I$	$2.85428 - 1.54452I$	$-7.25846 + 4.25517I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.44455+0.07637I$ $a=\ \ 0.681802+0.524693I$ $b=-0.430423-0.562966I$	$-6.23300+0.57167I$	0
$u=-1.44455-0.07637I$ $a=\ \ 0.681802-0.524693I$ $b=-0.430423+0.562966I$	$-6.23300-0.57167I$	0
$u=-1.38481+0.42788I$ $a=\ \ 0.190392+0.906474I$ $b=\ \ 0.729122-0.763915I$	$3.37635+6.67232I$	0
$u=-1.38481-0.42788I$ $a=\ \ 0.190392-0.906474I$ $b=\ \ 0.729122+0.763915I$	$3.37635-6.67232I$	0
$u=-0.166020+0.514578I$ $a=-0.44693+1.85551I$ $b=\ \ 0.518731-0.743814I$	$3.42589+0.03376I$	$-7.43382-3.19727I$
$u=-0.166020-0.514578I$ $a=-0.44693-1.85551I$ $b=\ \ 0.518731+0.743814I$	$3.42589-0.03376I$	$-7.43382+3.19727I$
$u=-0.442772+0.285049I$ $a=-0.529533-0.735122I$ $b=-1.155150-0.126670I$	$-2.38286+0.75626I$	$-14.3003-8.7966I$
$u=-0.442772-0.285049I$ $a=-0.529533+0.735122I$ $b=-1.155150+0.126670I$	$-2.38286-0.75626I$	$-14.3003+8.7966I$
$u=-0.050728+0.520709I$ $a=-1.27689-1.67775I$ $b=\ \ 1.053540+0.606874I$	$1.82638-5.10869I$	$-10.33632+2.79274I$
$u=-0.050728-0.520709I$ $a=-1.27689+1.67775I$ $b=\ \ 1.053540-0.606874I$	$1.82638+5.10869I$	$-10.33632-2.79274I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.48422 + 0.11960I$ $a = -1.091750 + 0.198604I$ $b = -1.280200 + 0.207550I$	$-8.74917 - 2.34681I$	0
$u = 1.48422 - 0.11960I$ $a = -1.091750 - 0.198604I$ $b = -1.280200 - 0.207550I$	$-8.74917 + 2.34681I$	0
$u = 1.48081 + 0.20261I$ $a = -0.517683 + 0.219188I$ $b = 0.336394 - 0.886288I$	$-3.35067 - 5.75212I$	0
$u = 1.48081 - 0.20261I$ $a = -0.517683 - 0.219188I$ $b = 0.336394 + 0.886288I$	$-3.35067 + 5.75212I$	0
$u = -1.48858 + 0.15570I$ $a = -0.76126 - 1.73875I$ $b = -1.043700 + 0.528714I$	$-7.98070 + 4.98123I$	0
$u = -1.48858 - 0.15570I$ $a = -0.76126 + 1.73875I$ $b = -1.043700 - 0.528714I$	$-7.98070 - 4.98123I$	0
$u = 1.47731 + 0.29233I$ $a = 0.676255 - 0.600632I$ $b = -0.476333 + 0.571535I$	$-2.13437 - 4.97965I$	0
$u = 1.47731 - 0.29233I$ $a = 0.676255 + 0.600632I$ $b = -0.476333 - 0.571535I$	$-2.13437 + 4.97965I$	0
$u = 1.53297 + 0.07025I$ $a = 0.938110 + 0.143254I$ $b = 0.984287 + 0.354066I$	$-5.50382 - 5.89106I$	0
$u = 1.53297 - 0.07025I$ $a = 0.938110 - 0.143254I$ $b = 0.984287 - 0.354066I$	$-5.50382 + 5.89106I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.52594 + 0.21463I$ $a = 1.05573 - 1.41124I$ $b = 1.166350 + 0.614109I$	$-5.84280 - 11.26350I$	0
$u = 1.52594 - 0.21463I$ $a = 1.05573 + 1.41124I$ $b = 1.166350 - 0.614109I$	$-5.84280 + 11.26350I$	0
$u = -0.438199 + 0.090942I$ $a = -0.71864 + 1.28993I$ $b = 1.023580 + 0.544299I$	$1.40601 - 5.44440I$	$-11.95126 + 6.52227I$
$u = -0.438199 - 0.090942I$ $a = -0.71864 - 1.28993I$ $b = 1.023580 - 0.544299I$	$1.40601 + 5.44440I$	$-11.95126 - 6.52227I$
$u = -1.53643 + 0.30203I$ $a = -1.038800 - 0.184797I$ $b = -1.290020 - 0.193740I$	$-4.57501 + 6.82873I$	0
$u = -1.53643 - 0.30203I$ $a = -1.038800 + 0.184797I$ $b = -1.290020 + 0.193740I$	$-4.57501 - 6.82873I$	0
$u = -1.58629 + 0.05555I$ $a = 0.930451 + 0.108721I$ $b = 0.969777 + 0.339351I$	$-9.36860 - 1.19827I$	0
$u = -1.58629 - 0.05555I$ $a = 0.930451 - 0.108721I$ $b = 0.969777 - 0.339351I$	$-9.36860 + 1.19827I$	0
$u = 1.56074 + 0.32973I$ $a = -0.65568 + 1.70420I$ $b = -1.033980 - 0.542121I$	$-3.74298 - 9.47180I$	0
$u = 1.56074 - 0.32973I$ $a = -0.65568 - 1.70420I$ $b = -1.033980 + 0.542121I$	$-3.74298 + 9.47180I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.59535 + 0.18384I$ $a = 0.922475 - 0.080974I$ $b = 0.953038 - 0.328264I$	$-5.30238 - 3.47210I$	0
$u = 1.59535 - 0.18384I$ $a = 0.922475 + 0.080974I$ $b = 0.953038 + 0.328264I$	$-5.30238 + 3.47210I$	0
$u = -1.57920 + 0.37233I$ $a = -0.496415 - 0.282202I$ $b = 0.348581 + 0.901087I$	$0.96810 + 10.23090I$	0
$u = -1.57920 - 0.37233I$ $a = -0.496415 + 0.282202I$ $b = 0.348581 - 0.901087I$	$0.96810 - 10.23090I$	0
$u = 0.164890 + 0.328364I$ $a = 2.32898 - 1.39189I$ $b = -0.829025 + 0.304193I$	$-0.893071 + 0.448349I$	$-12.04732 + 1.92652I$
$u = 0.164890 - 0.328364I$ $a = 2.32898 + 1.39189I$ $b = -0.829025 - 0.304193I$	$-0.893071 - 0.448349I$	$-12.04732 - 1.92652I$
$u = 0.361635$ $a = 1.02021$ $b = -0.134399$	-0.560922	-17.5600
$u = -1.62225 + 0.36056I$ $a = 0.97081 + 1.37626I$ $b = 1.168610 - 0.622869I$	$-1.5044 + 15.8184I$	0
$u = -1.62225 - 0.36056I$ $a = 0.97081 - 1.37626I$ $b = 1.168610 + 0.622869I$	$-1.5044 - 15.8184I$	0
$u = 0.103264 + 0.221522I$ $a = -4.46938 - 1.58365I$ $b = -1.076350 - 0.292667I$	$-0.176220 - 1.062730I$	$-15.2379 + 0.1443I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.103264 - 0.221522I$		
$a = -4.46938 + 1.58365I$	$-0.176220 + 1.062730I$	$-15.2379 - 0.1443I$
$b = -1.076350 + 0.292667I$		

II. $I^u_2 = \langle b+1,\ a+1,\ u^6 - u^5 - 3u^4 + 2u^3 + 2u^2 + u - 1\rangle$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -1 \\ -1 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -2 \\ -1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -1 \\ -1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u^5 - 2u^3 - u \\ u^5 - 3u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= u^5 - 4u - 15$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2	$(u-1)^6$
c_3, c_8	u^6
c_4	$(u+1)^6$
c_5, c_6, c_9	$u^6 - u^5 - 3u^4 + 2u^3 + 2u^2 + u - 1$
c_7	$u^6 + u^5 + 3u^4 + 2u^3 + 2u^2 + u - 1$
c_{10}	$u^6 + u^5 - 3u^4 - 2u^3 + 2u^2 - u - 1$
c_{11}, c_{12}	$u^6 - u^5 + 3u^4 - 2u^3 + 2u^2 - u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4	$(y-1)^6$
c_3, c_8	y^6
c_5, c_6, c_9 c_{10}	$y^6 - 7y^5 + 17y^4 - 16y^3 + 6y^2 - 5y + 1$
c_7, c_{11}, c_{12}	$y^6 + 5y^5 + 9y^4 + 4y^3 - 6y^2 - 5y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.493180 + 0.575288I$ $a = -1.00000$ $b = -1.00000$	$1.31531 + 1.97241I$	$-12.92955 - 2.53106I$
$u = -0.493180 - 0.575288I$ $a = -1.00000$ $b = -1.00000$	$1.31531 - 1.97241I$	$-12.92955 + 2.53106I$
$u = 0.483672$ $a = -1.00000$ $b = -1.00000$	-2.38379	-16.9080
$u = 1.52087 + 0.16310I$ $a = -1.00000$ $b = -1.00000$	$-5.34051 - 4.59213I$	$-13.8770 + 3.6103I$
$u = 1.52087 - 0.16310I$ $a = -1.00000$ $b = -1.00000$	$-5.34051 + 4.59213I$	$-13.8770 - 3.6103I$
$u = -1.53904$ $a = -1.00000$ $b = -1.00000$	-9.30502	-17.4790

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^6)(u^{81}+39u^{80}+\cdots+52u+1)$
c_2	$((u-1)^6)(u^{81}-7u^{80}+\cdots+2u+1)$
c_3, c_8	$u^6(u^{81}-u^{80}+\cdots+64u+64)$
c_4	$((u+1)^6)(u^{81}-7u^{80}+\cdots+2u+1)$
c_5, c_6	$(u^6-u^5-3u^4+2u^3+2u^2+u-1)(u^{81}-2u^{80}+\cdots-27u+9)$
c_7	$(u^6+u^5+3u^4+2u^3+2u^2+u-1)(u^{81}+2u^{80}+\cdots+3u+1)$
c_9	$(u^6-u^5-3u^4+2u^3+2u^2+u-1)(u^{81}+8u^{80}+\cdots-3141u+2537)$
c_{10}	$(u^6+u^5-3u^4-2u^3+2u^2-u-1)(u^{81}-2u^{80}+\cdots-27u+9)$
c_{11}, c_{12}	$(u^6-u^5+3u^4-2u^3+2u^2-u-1)(u^{81}+2u^{80}+\cdots+3u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^6)(y^{81}+13y^{80}+\cdots+3164y-1)$
c_2, c_4	$((y-1)^6)(y^{81}-39y^{80}+\cdots+52y-1)$
c_3, c_8	$y^6(y^{81}+39y^{80}+\cdots-40960y-4096)$
c_5, c_6, c_{10}	$(y^6-7y^5+\cdots-5y+1)(y^{81}-80y^{80}+\cdots-693y-81)$
c_7, c_{11}, c_{12}	$(y^6+5y^5+\cdots-5y+1)(y^{81}+64y^{80}+\cdots+11y-1)$
c_9	$(y^6-7y^5+17y^4-16y^3+6y^2-5y+1)$ $\cdot(y^{81}+4y^{80}+\cdots+43125951y-6436369)$