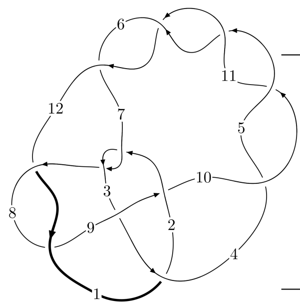
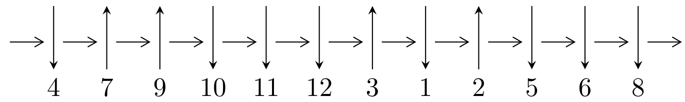
$12a_{1051}$ $(K12a_{1051})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & 3.30422 \times 10^{51} u^{68} + 3.51426 \times 10^{52} u^{67} + \cdots + 1.74141 \times 10^{53} b - 1.35897 \times 10^{53}, \\
& -7.04019 \times 10^{53} u^{68} + 7.16957 \times 10^{53} u^{67} + \cdots + 1.74141 \times 10^{53} a - 5.55666 \times 10^{54},\ u^{69} - u^{68} + \cdots + 16u -
\end{aligned}$$

$$\begin{aligned}
I_2^u = \langle & -u^{12} + 9u^{10} - 30u^8 - u^7 + 45u^6 + 5u^5 - 29u^4 - 7u^3 + 6u^2 + b + 2u, \\
& -u^{12} + 9u^{10} - 30u^8 - 2u^7 + 45u^6 + 11u^5 - 29u^4 - 18u^3 + 5u^2 + a + 8u + 2, \\
& u^{13} - 10u^{11} + 38u^9 + u^8 - 68u^7 - 6u^6 + 57u^5 + 11u^4 - 18u^3 - 6u^2 + 1 \rangle
\end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 82 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.

$\boldsymbol{I_1^u = \langle 3.30\times 10^{51}u^{68}+3.51\times 10^{52}u^{67}+\cdots+1.74\times 10^{53}b-1.36\times 10^{53},\ -7.04\times 10^{53}u^{68}+7.17\times 10^{53}u^{67}+\cdots+1.74\times 10^{53}a-5.56\times 10^{54},\ u^{69}-u^{68}+\cdots+16u+1\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u \\ -u^3+u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -u^2+1 \\ -u^4+2u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^3-2u \\ u^5-3u^3+u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 4.04281u^{68}-4.11711u^{67}+\cdots+265.966u+31.9090 \\ -0.0189744u^{68}-0.201805u^{67}+\cdots+5.33487u+0.780384 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 3.79040u^{68}-5.00863u^{67}+\cdots+272.372u+32.0554 \\ -0.271387u^{68}-1.09333u^{67}+\cdots+11.7404u+0.926866 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 2.63776u^{68}-3.52798u^{67}+\cdots+242.870u+30.7339 \\ -0.418007u^{68}-0.165084u^{67}+\cdots+29.6232u+2.50226 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 3.93419u^{68}-4.98353u^{67}+\cdots+286.492u+33.7569 \\ -0.370235u^{68}-0.800602u^{67}+\cdots+8.34849u+0.696586 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 3.11909u^{68}-4.03119u^{67}+\cdots+270.222u+39.5046 \\ -0.648080u^{68}-0.0452525u^{67}+\cdots+36.0775u+4.08566 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 6.92150u^{68}-8.70612u^{67}+\cdots+422.323u+41.9072$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{69} - 7u^{68} + \cdots + 6887u - 689$
c_2, c_7	$u^{69} - 18u^{67} + \cdots - u - 1$
c_3	$u^{69} - u^{68} + \cdots + 8u + 1$
c_4, c_5, c_6 c_{10}, c_{11}	$u^{69} + u^{68} + \cdots + 16u - 1$
c_8, c_{12}	$u^{69} - 26u^{67} + \cdots - 45u + 29$
c_9	$u^{69} + 3u^{68} + \cdots + 280u - 139$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{69} - 31y^{68} + \cdots + 26893057y - 474721$
c_2, c_7	$y^{69} - 36y^{68} + \cdots + 25y - 1$
c_3	$y^{69} + y^{68} + \cdots + 16y - 1$
c_4, c_5, c_6 c_{10}, c_{11}	$y^{69} - 95y^{68} + \cdots + 96y - 1$
c_8, c_{12}	$y^{69} - 52y^{68} + \cdots + 25341y - 841$
c_9	$y^{69} + 17y^{68} + \cdots - 608816y - 19321$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.970523 + 0.108303I$ $a = -0.854816 + 1.050670I$ $b = -0.104041 + 0.201502I$	$-1.13069 - 0.85474I$	0
$u = 0.970523 - 0.108303I$ $a = -0.854816 - 1.050670I$ $b = -0.104041 - 0.201502I$	$-1.13069 + 0.85474I$	0
$u = 1.033950 + 0.073948I$ $a = -0.51792 - 1.53260I$ $b = -1.21908 - 1.48587I$	$-5.24202 - 3.64411I$	0
$u = 1.033950 - 0.073948I$ $a = -0.51792 + 1.53260I$ $b = -1.21908 + 1.48587I$	$-5.24202 + 3.64411I$	0
$u = -0.960213$ $a = 0.604404$ $b = -1.23574$	-0.118191	0
$u = -0.922631 + 0.233585I$ $a = -0.75796 + 1.45099I$ $b = 0.403514 + 0.999659I$	$-3.71809 + 2.97804I$	0
$u = -0.922631 - 0.233585I$ $a = -0.75796 - 1.45099I$ $b = 0.403514 - 0.999659I$	$-3.71809 - 2.97804I$	0
$u = -0.917023 + 0.212783I$ $a = 0.08094 + 1.94171I$ $b = 0.374010 + 0.305925I$	$-2.30574 + 5.04357I$	0
$u = -0.917023 - 0.212783I$ $a = 0.08094 - 1.94171I$ $b = 0.374010 - 0.305925I$	$-2.30574 - 5.04357I$	0
$u = -0.900768 + 0.078956I$ $a = -0.69952 + 1.99893I$ $b = 0.389187 + 1.261770I$	$-3.54279 + 2.91613I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.900768 - 0.078956I$ $a = -0.69952 - 1.99893I$ $b = 0.389187 - 1.261770I$	$-3.54279 - 2.91613I$	0
$u = 1.093250 + 0.272776I$ $a = 0.19450 - 1.67030I$ $b = 1.09950 - 1.25535I$	$-1.31596 - 6.29242I$	0
$u = 1.093250 - 0.272776I$ $a = 0.19450 + 1.67030I$ $b = 1.09950 + 1.25535I$	$-1.31596 + 6.29242I$	0
$u = 1.044710 + 0.433897I$ $a = 0.686500 + 0.770259I$ $b = -0.021208 + 1.131490I$	$-5.90299 - 3.46414I$	0
$u = 1.044710 - 0.433897I$ $a = 0.686500 - 0.770259I$ $b = -0.021208 - 1.131490I$	$-5.90299 + 3.46414I$	0
$u = 1.127140 + 0.222152I$ $a = 0.52291 + 1.41806I$ $b = -0.862853 + 0.977792I$	$-8.33525 - 5.88314I$	0
$u = 1.127140 - 0.222152I$ $a = 0.52291 - 1.41806I$ $b = -0.862853 - 0.977792I$	$-8.33525 + 5.88314I$	0
$u = 0.480235 + 0.689334I$ $a = -0.568720 + 0.491028I$ $b = -0.450178 - 0.761446I$	$-1.51842 + 4.43214I$	0
$u = 0.480235 - 0.689334I$ $a = -0.568720 - 0.491028I$ $b = -0.450178 + 0.761446I$	$-1.51842 - 4.43214I$	0
$u = -1.115900 + 0.395594I$ $a = 0.24502 - 1.47620I$ $b = -1.00488 - 1.21839I$	$-5.66016 + 12.60390I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.115900-0.395594I$ $a=\ \ 0.24502+1.47620I$ $b=-1.00488+1.21839I$	$-5.66016-12.60390I$	0
$u=\ \ 0.337583+0.691942I$ $a=-0.659876-0.083894I$ $b=\ \ 0.778722-0.958452I$	$-1.13098-8.91114I$	$-4.00000+8.49340I$
$u=\ \ 0.337583-0.691942I$ $a=-0.659876+0.083894I$ $b=\ \ 0.778722+0.958452I$	$-1.13098+8.91114I$	$-4.00000-8.49340I$
$u=-1.278510+0.014060I$ $a=-0.530795-0.268501I$ $b=-1.083720-0.300872I$	$-7.37922-0.04313I$	0
$u=-1.278510-0.014060I$ $a=-0.530795+0.268501I$ $b=-1.083720+0.300872I$	$-7.37922+0.04313I$	0
$u=\ \ 0.655716+0.240239I$ $a=-0.291654-0.184454I$ $b=\ \ 0.966260+0.067900I$	$-1.031510+0.312804I$	$-8.34035+1.35782I$
$u=\ \ 0.655716-0.240239I$ $a=-0.291654+0.184454I$ $b=\ \ 0.966260-0.067900I$	$-1.031510-0.312804I$	$-8.34035-1.35782I$
$u=-0.165954+0.649062I$ $a=\ \ 0.003498-0.456639I$ $b=-0.255335+0.985701I$	$-2.17679-0.26649I$	$-8.08515-0.77789I$
$u=-0.165954-0.649062I$ $a=\ \ 0.003498+0.456639I$ $b=-0.255335-0.985701I$	$-2.17679+0.26649I$	$-8.08515+0.77789I$
$u=-0.468363+0.413877I$ $a=-1.59539+0.60353I$ $b=\ \ 0.496715+0.910892I$	$-3.36016+3.70048I$	$-9.81035-6.09222I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.468363-0.413877I$ $a=-1.59539-0.60353I$ $b=\ \ 0.496715-0.910892I$	$-3.36016-3.70048I$	$-9.81035+6.09222I$
$u=-1.337030+0.327168I$ $a=\ \ 0.464853-0.302329I$ $b=-0.078909-0.591498I$	$-7.29700-0.75484I$	0
$u=-1.337030-0.327168I$ $a=\ \ 0.464853+0.302329I$ $b=-0.078909+0.591498I$	$-7.29700+0.75484I$	0
$u=\ \ 0.607599$ $a=-0.226329$ $b=\ \ 0.516562$	-1.12956	-8.41060
$u=-0.314959+0.499815I$ $a=\ \ 0.599510-0.307709I$ $b=-0.951155-0.796839I$	$3.10870+3.65525I$	$-0.44555-7.33044I$
$u=-0.314959-0.499815I$ $a=\ \ 0.599510+0.307709I$ $b=-0.951155+0.796839I$	$3.10870-3.65525I$	$-0.44555+7.33044I$
$u=-0.371311+0.394330I$ $a=\ \ 0.97740+1.13892I$ $b=\ \ 0.739429-0.343891I$	$2.88878-0.59529I$	$0.335042-1.258913I$
$u=-0.371311-0.394330I$ $a=\ \ 0.97740-1.13892I$ $b=\ \ 0.739429+0.343891I$	$2.88878+0.59529I$	$0.335042+1.258913I$
$u=\ \ 1.51600$ $a=-0.972604$ $b=-0.823418$	-3.18079	0
$u=\ \ 0.083281+0.453009I$ $a=\ \ 1.35995+1.51466I$ $b=-0.724939+0.127054I$	$0.70817-2.77944I$	$-0.09198+6.13173I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.083281 - 0.453009I$ $a = 1.35995 - 1.51466I$ $b = -0.724939 - 0.127054I$	$0.70817 + 2.77944I$	$-0.09198 - 6.13173I$
$u = 0.195749 + 0.351698I$ $a = 1.169440 - 0.099926I$ $b = -0.278714 + 0.641393I$	$-0.314860 - 1.014580I$	$-5.61645 + 6.17705I$
$u = 0.195749 - 0.351698I$ $a = 1.169440 + 0.099926I$ $b = -0.278714 - 0.641393I$	$-0.314860 + 1.014580I$	$-5.61645 - 6.17705I$
$u = -1.66089$ $a = -0.179607$ $b = -1.14488$	-9.16005	0
$u = 1.70441 + 0.07129I$ $a = 0.22559 + 1.66331I$ $b = -0.494925 + 1.140110I$	$-13.04310 - 4.25845I$	0
$u = 1.70441 - 0.07129I$ $a = 0.22559 - 1.66331I$ $b = -0.494925 - 1.140110I$	$-13.04310 + 4.25845I$	0
$u = 1.70688 + 0.04723I$ $a = -0.15217 + 1.71603I$ $b = -0.216141 + 0.574577I$	$-11.67470 - 6.01387I$	0
$u = 1.70688 - 0.04723I$ $a = -0.15217 - 1.71603I$ $b = -0.216141 - 0.574577I$	$-11.67470 + 6.01387I$	0
$u = 1.71727 + 0.01724I$ $a = -0.14976 + 2.06323I$ $b = -0.76930 + 1.55036I$	$-13.04020 - 3.28190I$	0
$u = 1.71727 - 0.01724I$ $a = -0.14976 - 2.06323I$ $b = -0.76930 - 1.55036I$	$-13.04020 + 3.28190I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.72043 + 0.01720I$ $a = 0.319134 + 1.230620I$ $b = -0.152732 + 0.585019I$	$-10.78490 + 1.28215I$	0
$u = -1.72043 - 0.01720I$ $a = 0.319134 - 1.230620I$ $b = -0.152732 - 0.585019I$	$-10.78490 - 1.28215I$	0
$u = 1.72209$ $a = 0.327354$ $b = 1.49160$	-9.78852	0
$u = -1.73799 + 0.01931I$ $a = 1.08020 - 1.84615I$ $b = 1.55088 - 1.72505I$	$-15.2509 + 4.0310I$	0
$u = -1.73799 - 0.01931I$ $a = 1.08020 + 1.84615I$ $b = 1.55088 + 1.72505I$	$-15.2509 - 4.0310I$	0
$u = -1.74421 + 0.11729I$ $a = -0.28874 + 1.41097I$ $b = 0.263478 + 1.336250I$	$-15.7999 + 5.7580I$	0
$u = -1.74421 - 0.11729I$ $a = -0.28874 - 1.41097I$ $b = 0.263478 - 1.336250I$	$-15.7999 - 5.7580I$	0
$u = -1.75104 + 0.07156I$ $a = -0.67507 - 1.98321I$ $b = -1.25654 - 1.57527I$	$-11.53150 + 7.74332I$	0
$u = -1.75104 - 0.07156I$ $a = -0.67507 + 1.98321I$ $b = -1.25654 + 1.57527I$	$-11.53150 - 7.74332I$	0
$u = -1.75568 + 0.05812I$ $a = 0.13855 + 1.50571I$ $b = 1.11222 + 1.06448I$	$-18.7148 + 7.0816I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.75568 - 0.05812I$ $a = 0.13855 - 1.50571I$ $b = 1.11222 - 1.06448I$	$-18.7148 - 7.0816I$	0
$u = 1.75461 + 0.10664I$ $a = 0.32391 - 1.84018I$ $b = 1.17322 - 1.41872I$	$-15.8746 - 14.7349I$	0
$u = 1.75461 - 0.10664I$ $a = 0.32391 + 1.84018I$ $b = 1.17322 + 1.41872I$	$-15.8746 + 14.7349I$	0
$u = 1.79142 + 0.04126I$ $a = 0.376682 - 0.961683I$ $b = 0.885083 - 0.907630I$	$-18.8425 - 0.5002I$	0
$u = 1.79142 - 0.04126I$ $a = 0.376682 + 0.961683I$ $b = 0.885083 + 0.907630I$	$-18.8425 + 0.5002I$	0
$u = -0.153507 + 0.114938I$ $a = -3.62976 - 1.49255I$ $b = 0.550095 - 1.156120I$	$-1.43627 + 2.95426I$	$-9.8137 - 11.3357I$
$u = -0.153507 - 0.114938I$ $a = -3.62976 + 1.49255I$ $b = 0.550095 + 1.156120I$	$-1.43627 - 2.95426I$	$-9.8137 + 11.3357I$
$u = 1.80975$ $a = 1.20100$ $b = 1.65732$	-18.8871	0
$u = -0.117170$ $a = 11.4529$ $b = 0.823225$	2.72284	13.1210

II. $I_2^u =$ $\langle -u^{12}+9u^{10}+\cdots+b+2u,\ -u^{12}+9u^{10}+\cdots+a+2,\ u^{13}-10u^{11}+\cdots-6u^2+1\rangle$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^3 - 2u \\ u^5 - 3u^3 + u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^{12} - 9u^{10} + 30u^8 + 2u^7 - 45u^6 - 11u^5 + 29u^4 + 18u^3 - 5u^2 - 8u - 2 \\ u^{12} - 9u^{10} + 30u^8 + u^7 - 45u^6 - 5u^5 + 29u^4 + 7u^3 - 6u^2 - 2u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^{12} - 9u^{10} + \cdots - 8u - 2 \\ u^{12} - 9u^{10} - u^9 + 30u^8 + 7u^7 - 45u^6 - 16u^5 + 28u^4 + 13u^3 - 4u^2 - 2u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^{12} + 10u^{10} - 37u^8 - u^7 + 61u^6 + 6u^5 - 41u^4 - 11u^3 + 5u^2 + 5u + 3 \\ -u^3 + 2u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^{12} - 9u^{10} + \cdots - 10u - 3 \\ u^{12} - 9u^{10} + 30u^8 + u^7 - 45u^6 - 5u^5 + 29u^4 + 7u^3 - 6u^2 - u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^{12} + 10u^{10} + \cdots + 11u + 4 \\ u^{11} - 8u^9 - u^8 + 23u^7 + 7u^6 - 28u^5 - 15u^4 + 11u^3 + 10u^2 + 2u - 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= u^{12} + 5u^{11} - 10u^{10} - 44u^9 + 41u^8 + 143u^7 - 80u^6 - 210u^5 + 62u^4 + 133u^3 - 23u - 17$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{13} - 8y^{12} + \cdots + 9y - 1$
c_2, c_7	$y^{13} - 13y^{12} + \cdots + 13y - 1$
c_3	$y^{13} - 4y^{12} + 7y^{10} - 9y^8 + 6y^7 + 19y^6 - 9y^5 - 20y^4 + 3y^3 + 8y^2 - 1$
c_4, c_5, c_6 c_{10}, c_{11}	$y^{13} - 20y^{12} + \cdots + 12y - 1$
c_8, c_{12}	$y^{13} - 13y^{12} + \cdots + 13y - 1$
c_9	$y^{13} - 8y^{11} - 3y^{10} + 20y^9 + 9y^8 - 19y^7 - 6y^6 + 9y^5 - 7y^3 + 4y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.900642+0.211290I$ $a=-0.89953+1.86106I$ $b=-0.037612+1.092140I$	$-3.44781+4.22361I$	$-9.99869-7.63221I$
$u=-0.900642-0.211290I$ $a=-0.89953-1.86106I$ $b=-0.037612-1.092140I$	$-3.44781-4.22361I$	$-9.99869+7.63221I$
$u=\ \ 0.835287$ $a=-1.01640$ $b=\ \ 1.04297$	0.774317	-0.352240
$u=\ \ 1.349780+0.188354I$ $a=-0.360972+0.236906I$ $b=-0.753544+0.428711I$	$-6.62178+0.41146I$	$-4.17258-0.90590I$
$u=\ \ 1.349780-0.188354I$ $a=-0.360972-0.236906I$ $b=-0.753544-0.428711I$	$-6.62178-0.41146I$	$-4.17258+0.90590I$
$u=-1.48165$ $a=\ \ 1.01148$ $b=\ \ 0.537900$	-3.72558	-14.4700
$u=-0.246497+0.330591I$ $a=\ \ 0.528174-0.970691I$ $b=\ \ 0.379862+0.838529I$	$-1.26239-2.39614I$	$-4.80417-1.14749I$
$u=-0.246497-0.330591I$ $a=\ \ 0.528174+0.970691I$ $b=\ \ 0.379862-0.838529I$	$-1.26239+2.39614I$	$-4.80417+1.14749I$
$u=\ \ 0.333287$ $a=-4.29907$ $b=-0.793443$	2.47324	-19.8810
$u=-1.68760$ $a=\ \ 0.0537118$ $b=-1.19628$	-8.25610	-1.28480

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.70777 + 0.05845I$ $a = 0.29300 + 1.93652I$ $b = -0.157231 + 1.253940I$	$-12.79170 - 5.30924I$	$-11.13586 + 5.88346I$
$u = 1.70777 - 0.05845I$ $a = 0.29300 - 1.93652I$ $b = -0.157231 - 1.253940I$	$-12.79170 + 5.30924I$	$-11.13586 - 5.88346I$
$u = -1.82016$ $a = 1.12892$ $b = 1.54590$	-18.6855	11.2100

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{13}-4u^{11}+\cdots+5u-1)(u^{69}-7u^{68}+\cdots+6887u-689)$
c_2	$(u^{13}+u^{12}+\cdots+u+1)(u^{69}-18u^{67}+\cdots-u-1)$
c_3	$(u^{13}-2u^{11}-u^{10}-2u^9-3u^8+u^6+u^5+4u^4+u^3-1)$ $\cdot(u^{69}-u^{68}+\cdots+8u+1)$
c_4, c_5, c_6	$(u^{13}-10u^{11}+38u^9-u^8-68u^7+6u^6+57u^5-11u^4-18u^3+6u^2-1)$ $\cdot(u^{69}+u^{68}+\cdots+16u-1)$
c_7	$(u^{13}-u^{12}+\cdots+u-1)(u^{69}-18u^{67}+\cdots-u-1)$
c_8	$(u^{13}-u^{12}+\cdots+u-1)(u^{69}-26u^{67}+\cdots-45u+29)$
c_9	$(u^{13}-u^{10}-4u^9-u^8-u^7+3u^5+2u^4+u^3+2u^2-1)$ $\cdot(u^{69}+3u^{68}+\cdots+280u-139)$
c_{10}, c_{11}	$(u^{13}-10u^{11}+38u^9+u^8-68u^7-6u^6+57u^5+11u^4-18u^3-6u^2+1)$ $\cdot(u^{69}+u^{68}+\cdots+16u-1)$
c_{12}	$(u^{13}+u^{12}+\cdots+u+1)(u^{69}-26u^{67}+\cdots-45u+29)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{13} - 8y^{12} + \cdots + 9y - 1)(y^{69} - 31y^{68} + \cdots + 2.68931 \times 10^7 y - 474721)$
c_2, c_7	$(y^{13} - 13y^{12} + \cdots + 13y - 1)(y^{69} - 36y^{68} + \cdots + 25y - 1)$
c_3	$(y^{13} - 4y^{12} + 7y^{10} - 9y^8 + 6y^7 + 19y^6 - 9y^5 - 20y^4 + 3y^3 + 8y^2 - 1)$ $\cdot (y^{69} + y^{68} + \cdots + 16y - 1)$
c_4, c_5, c_6 c_{10}, c_{11}	$(y^{13} - 20y^{12} + \cdots + 12y - 1)(y^{69} - 95y^{68} + \cdots + 96y - 1)$
c_8, c_{12}	$(y^{13} - 13y^{12} + \cdots + 13y - 1)(y^{69} - 52y^{68} + \cdots + 25341y - 841)$
c_9	$(y^{13} - 8y^{11} - 3y^{10} + 20y^9 + 9y^8 - 19y^7 - 6y^6 + 9y^5 - 7y^3 + 4y - 1)$ $\cdot (y^{69} + 17y^{68} + \cdots - 608816y - 19321)$