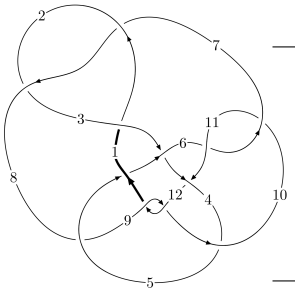
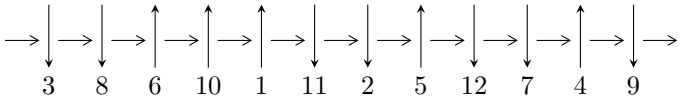
$12a_{0700}$ $(K12a_{0700})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 1.67707 \times 10^{517} u^{170} + 2.41772 \times 10^{516} u^{169} + \cdots + 4.22459 \times 10^{515} b + 4.07568 \times 10^{519}, \\ & - 1.58770 \times 10^{520} u^{170} + 3.63892 \times 10^{519} u^{169} + \cdots + 1.67716 \times 10^{518} a - 6.29761 \times 10^{522}, \\ & u^{171} - u^{170} + \cdots + 586u - 397 \rangle \\ I_2^u = \langle & -205536567 u^{44} + 2638046874 u^{43} + \cdots + 279594103 b - 13616934025, \\ & - 12067050844 u^{44} - 2918818158 u^{43} + \cdots + 838782309 a - 5408626830, \\ & u^{45} - 14 u^{43} + \cdots - 9u + 3 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 216 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. $\boldsymbol{I_1^u = \langle 1.68 \times 10^{517} u^{170} + 2.42 \times 10^{516} u^{169} + \cdots + 4.22 \times 10^{515} b + 4.08 \times 10^{519},\ -1.59 \times 10^{520} u^{170} + 3.64 \times 10^{519} u^{169} + \cdots + 1.68 \times 10^{518} a - 6.30 \times 10^{522},\ u^{171} - u^{170} + \cdots + 586u - 397 \rangle}$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^3 \\ u^5 - u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 94.6662u^{170} - 21.6969u^{169} + \cdots - 26585.7u + 37549.3 \\ -39.6979u^{170} - 5.72299u^{169} + \cdots + 13115.3u - 9647.53 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 45.9599u^{170} - 17.2381u^{169} + \cdots - 12547.3u + 20732.1 \\ -24.4709u^{170} - 5.37117u^{169} + \cdots + 8344.75u - 4907.67 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 11.3771u^{170} - 0.208651u^{169} + \cdots - 3186.44u + 3718.02 \\ -3.07513u^{170} - 1.79771u^{169} + \cdots + 1127.40u - 259.968 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 29.4345u^{170} - 32.1297u^{169} + \cdots - 4225.62u + 22195.0 \\ -32.0724u^{170} - 1.34218u^{169} + \cdots + 10101.1u - 9251.27 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 24.1839u^{170} - 23.7891u^{169} + \cdots - 4829.20u + 17221.1 \\ -24.8459u^{170} - 7.07327u^{169} + \cdots + 8647.31u - 4301.28 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 54.9682u^{170} - 27.4199u^{169} + \cdots - 13470.4u + 27901.7 \\ -39.6979u^{170} - 5.72299u^{169} + \cdots + 13115.3u - 9647.53 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -10.9228u^{170} - 8.36188u^{169} + \cdots + 4785.16u - 94.6923 \\ -19.2601u^{170} + 3.11046u^{169} + \cdots + 5477.55u - 7237.79 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 61.8148u^{170} + 26.9336u^{169} + \cdots - 21906.6u + 8391.20$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{171} + 79u^{170} + \cdots + 1899636u + 157609$
c_2, c_7	$u^{171} - u^{170} + \cdots + 586u - 397$
c_3	$u^{171} - 16u^{170} + \cdots - 105850260074u + 6222620143$
c_4	$u^{171} + u^{170} + \cdots + 6244268u + 1871863$
c_5	$u^{171} - 24u^{169} + \cdots - 319818841u - 22221569$
c_6, c_{10}	$u^{171} + 2u^{170} + \cdots - 92496u - 62927$
c_8	$u^{171} - 5u^{170} + \cdots + 7769088u + 837632$
c_9, c_{12}	$u^{171} - 6u^{170} + \cdots - 48u + 1$
c_{11}	$u^{171} - 3u^{170} + \cdots - 5954691744u + 869790560$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{171} + 41y^{170} + \cdots + 2670305620588y - 24840596881$
c_2, c_7	$y^{171} - 79y^{170} + \cdots + 1899636y - 157609$
c_3	$y^{171} - 60y^{170} + \cdots + 3.41 \times 10^{21}y - 3.87 \times 10^{19}$
c_4	$y^{171} - 39y^{170} + \cdots + 212094663334992y - 3503871090769$
c_5	$y^{171} - 48y^{170} + \cdots + 23054962778381399y - 493798128821761$
c_6, c_{10}	$y^{171} + 100y^{170} + \cdots - 122657730866y - 3959807329$
c_8	$y^{171} - 29y^{170} + \cdots + 26226872811520y - 701627367424$
c_9, c_{12}	$y^{171} + 124y^{170} + \cdots + 6y - 1$
c_{11}	$y^{171} - 61y^{170} + \cdots + 5.18 \times 10^{19}y - 7.57 \times 10^{17}$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.956826 + 0.287603I$ $a = -0.214990 + 0.039118I$ $b = 0.617261 - 1.256480I$	$2.51554 + 4.66422I$	0
$u = 0.956826 - 0.287603I$ $a = -0.214990 - 0.039118I$ $b = 0.617261 + 1.256480I$	$2.51554 - 4.66422I$	0
$u = 0.878636 + 0.466670I$ $a = -1.81779 + 3.02433I$ $b = -0.127767 - 0.933514I$	$-2.23105 - 1.90040I$	0
$u = 0.878636 - 0.466670I$ $a = -1.81779 - 3.02433I$ $b = -0.127767 + 0.933514I$	$-2.23105 + 1.90040I$	0
$u = -0.797590 + 0.613927I$ $a = 0.36054 + 1.81675I$ $b = -0.495385 - 1.175970I$	$7.74690 + 0.58892I$	0
$u = -0.797590 - 0.613927I$ $a = 0.36054 - 1.81675I$ $b = -0.495385 + 1.175970I$	$7.74690 - 0.58892I$	0
$u = 0.897140 + 0.461300I$ $a = -0.222009 - 1.350370I$ $b = 1.236070 + 0.216738I$	$-1.24696 - 4.30194I$	0
$u = 0.897140 - 0.461300I$ $a = -0.222009 + 1.350370I$ $b = 1.236070 - 0.216738I$	$-1.24696 + 4.30194I$	0
$u = 0.868052 + 0.461448I$ $a = 0.76462 + 1.23283I$ $b = -1.314450 + 0.413646I$	$-1.156070 + 0.546217I$	0
$u = 0.868052 - 0.461448I$ $a = 0.76462 - 1.23283I$ $b = -1.314450 - 0.413646I$	$-1.156070 - 0.546217I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.975014 + 0.100724I$ $a = -0.197692 - 0.624980I$ $b = -0.324228 + 1.176300I$	$4.48921 + 2.47656I$	0
$u = 0.975014 - 0.100724I$ $a = -0.197692 + 0.624980I$ $b = -0.324228 - 1.176300I$	$4.48921 - 2.47656I$	0
$u = -0.546543 + 0.862927I$ $a = -0.257752 + 0.432459I$ $b = 1.257840 - 0.106489I$	$0.67913 - 2.32400I$	0
$u = -0.546543 - 0.862927I$ $a = -0.257752 - 0.432459I$ $b = 1.257840 + 0.106489I$	$0.67913 + 2.32400I$	0
$u = -0.491789 + 0.845790I$ $a = 0.401471 - 0.341501I$ $b = -1.148200 + 0.080607I$	$5.73401 - 8.33723I$	0
$u = -0.491789 - 0.845790I$ $a = 0.401471 + 0.341501I$ $b = -1.148200 - 0.080607I$	$5.73401 + 8.33723I$	0
$u = -0.608462 + 0.761738I$ $a = 0.47379 + 2.13450I$ $b = -0.297301 - 1.222780I$	$5.48470 - 3.12328I$	0
$u = -0.608462 - 0.761738I$ $a = 0.47379 - 2.13450I$ $b = -0.297301 + 1.222780I$	$5.48470 + 3.12328I$	0
$u = 0.934716 + 0.439830I$ $a = 2.64369 - 1.69700I$ $b = 0.224833 + 0.839728I$	$1.55184 - 5.66028I$	0
$u = 0.934716 - 0.439830I$ $a = 2.64369 + 1.69700I$ $b = 0.224833 - 0.839728I$	$1.55184 + 5.66028I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$1.026210+0.132140I$		
$a=$	$0.94526-1.12379I$	$-2.33748-4.36060I$	0
$b=$	$0.682948+0.550960I$		
$u=$	$1.026210-0.132140I$		
$a=$	$0.94526+1.12379I$	$-2.33748+4.36060I$	0
$b=$	$0.682948-0.550960I$		
$u=$	$0.853301+0.448186I$		
$a=$	$0.83149-3.63508I$	$1.80141+2.02979I$	0
$b=$	$0.078705+0.937908I$		
$u=$	$0.853301-0.448186I$		
$a=$	$0.83149+3.63508I$	$1.80141-2.02979I$	0
$b=$	$0.078705-0.937908I$		
$u=$	$-0.459919+0.838834I$		
$a=$	$0.003273-0.141996I$	$5.64380+4.62745I$	0
$b=$	$-1.007690+0.303161I$		
$u=$	$-0.459919-0.838834I$		
$a=$	$0.003273+0.141996I$	$5.64380-4.62745I$	0
$b=$	$-1.007690-0.303161I$		
$u=$	$-0.921616+0.490534I$		
$a=$	$-0.735283-0.208805I$	$-1.89895+2.67491I$	0
$b=$	$-0.550307-0.688727I$		
$u=$	$-0.921616-0.490534I$		
$a=$	$-0.735283+0.208805I$	$-1.89895-2.67491I$	0
$b=$	$-0.550307+0.688727I$		
$u=$	$-0.907689+0.517824I$		
$a=$	$-0.92556-1.31095I$	$-0.69875+4.90531I$	0
$b=$	$-1.165630+0.699508I$		
$u=$	$-0.907689-0.517824I$		
$a=$	$-0.92556+1.31095I$	$-0.69875-4.90531I$	0
$b=$	$-1.165630-0.699508I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.877483+0.376347I$ $a=\ \ 0.667543+0.222189I$ $b=\ \ 0.671106-0.312724I$	$-1.40660+0.95422I$	0
$u=-0.877483-0.376347I$ $a=\ \ 0.667543-0.222189I$ $b=\ \ 0.671106+0.312724I$	$-1.40660-0.95422I$	0
$u=-0.900009+0.536045I$ $a=\ \ 1.356680-0.146144I$ $b=\ \ 0.456857+0.768723I$	$2.43989+6.24179I$	0
$u=-0.900009-0.536045I$ $a=\ \ 1.356680+0.146144I$ $b=\ \ 0.456857-0.768723I$	$2.43989-6.24179I$	0
$u=-0.789179+0.530446I$ $a=-1.53402+0.29766I$ $b=-0.532062+0.537487I$	$2.78965-1.92572I$	0
$u=-0.789179-0.530446I$ $a=-1.53402-0.29766I$ $b=-0.532062-0.537487I$	$2.78965+1.92572I$	0
$u=\ \ 0.448529+0.949574I$ $a=-0.00572-1.62100I$ $b=-0.57346+1.34895I$	$9.7363+14.3889I$	0
$u=\ \ 0.448529-0.949574I$ $a=-0.00572+1.62100I$ $b=-0.57346-1.34895I$	$9.7363-14.3889I$	0
$u=\ \ 0.355744+0.993600I$ $a=-0.142783-1.263270I$ $b=-0.66863+1.35759I$	$8.71974+1.76736I$	0
$u=\ \ 0.355744-0.993600I$ $a=-0.142783+1.263270I$ $b=-0.66863-1.35759I$	$8.71974-1.76736I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.657732 + 0.829253I$ $a = -0.62813 + 1.85085I$ $b = -0.41368 - 1.49142I$	$10.95280 + 2.50693I$	0
$u = 0.657732 - 0.829253I$ $a = -0.62813 - 1.85085I$ $b = -0.41368 + 1.49142I$	$10.95280 - 2.50693I$	0
$u = -0.423891 + 0.974839I$ $a = 0.09072 - 1.71356I$ $b = 0.099083 + 1.055390I$	$3.39888 - 0.77235I$	0
$u = -0.423891 - 0.974839I$ $a = 0.09072 + 1.71356I$ $b = 0.099083 - 1.055390I$	$3.39888 + 0.77235I$	0
$u = 0.444365 + 0.969023I$ $a = -0.02205 + 1.50059I$ $b = 0.57395 - 1.36722I$	$4.81458 + 8.62639I$	0
$u = 0.444365 - 0.969023I$ $a = -0.02205 - 1.50059I$ $b = 0.57395 + 1.36722I$	$4.81458 - 8.62639I$	0
$u = 0.863125 + 0.350401I$ $a = 0.238619 + 0.673714I$ $b = -0.722226 + 1.021860I$	$0.55593 + 1.81783I$	0
$u = 0.863125 - 0.350401I$ $a = 0.238619 - 0.673714I$ $b = -0.722226 - 1.021860I$	$0.55593 - 1.81783I$	0
$u = 0.419292 + 0.829504I$ $a = 0.083582 + 0.849301I$ $b = -0.212142 - 0.509063I$	$3.81399 + 2.47640I$	0
$u = 0.419292 - 0.829504I$ $a = 0.083582 - 0.849301I$ $b = -0.212142 + 0.509063I$	$3.81399 - 2.47640I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.893807+0.590700I$ $a=\ \ 1.98942+2.00045I$ $b=\ \ 0.599518-1.103710I$	$7.44851+4.15937I$	0
$u=-0.893807-0.590700I$ $a=\ \ 1.98942-2.00045I$ $b=\ \ 0.599518+1.103710I$	$7.44851-4.15937I$	0
$u=-0.731601+0.786359I$ $a=-0.60679-1.96764I$ $b=\ \ 0.402401+1.167230I$	$8.68265-3.67599I$	0
$u=-0.731601-0.786359I$ $a=-0.60679+1.96764I$ $b=\ \ 0.402401-1.167230I$	$8.68265+3.67599I$	0
$u=-0.997567+0.422352I$ $a=\ \ 0.318505+0.536245I$ $b=\ \ 0.916995-0.035295I$	$-1.11246+1.02477I$	0
$u=-0.997567-0.422352I$ $a=\ \ 0.318505-0.536245I$ $b=\ \ 0.916995+0.035295I$	$-1.11246-1.02477I$	0
$u=-0.715901+0.558446I$ $a=-0.96085-1.69301I$ $b=\ \ 0.53387+1.35453I$	$2.74819-2.02548I$	0
$u=-0.715901-0.558446I$ $a=-0.96085+1.69301I$ $b=\ \ 0.53387-1.35453I$	$2.74819+2.02548I$	0
$u=-0.769705+0.481037I$ $a=-0.205971+0.066204I$ $b=\ \ 0.928769+0.717151I$	$-0.257115-0.769190I$	0
$u=-0.769705-0.481037I$ $a=-0.205971-0.066204I$ $b=\ \ 0.928769-0.717151I$	$-0.257115+0.769190I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.629651 + 0.653076I$ $a = -0.684637 - 0.601316I$ $b = 0.515604 + 0.038534I$	$5.48230 - 0.00666I$	0
$u = 0.629651 - 0.653076I$ $a = -0.684637 + 0.601316I$ $b = 0.515604 - 0.038534I$	$5.48230 + 0.00666I$	0
$u = -1.055510 + 0.289408I$ $a = -0.156422 - 0.303114I$ $b = -0.783991 - 0.413477I$	$-0.154658 + 0.882825I$	0
$u = -1.055510 - 0.289408I$ $a = -0.156422 + 0.303114I$ $b = -0.783991 + 0.413477I$	$-0.154658 - 0.882825I$	0
$u = 1.099160 + 0.059660I$ $a = -1.24839 + 0.84415I$ $b = -0.704221 - 0.285989I$	$-5.17273 + 1.06158I$	0
$u = 1.099160 - 0.059660I$ $a = -1.24839 - 0.84415I$ $b = -0.704221 + 0.285989I$	$-5.17273 - 1.06158I$	0
$u = -0.947361 + 0.564417I$ $a = -1.60462 - 1.97667I$ $b = -0.68096 + 1.33596I$	$2.01829 + 6.54575I$	0
$u = -0.947361 - 0.564417I$ $a = -1.60462 + 1.97667I$ $b = -0.68096 - 1.33596I$	$2.01829 - 6.54575I$	0
$u = -0.499183 + 0.740716I$ $a = -0.31445 - 2.53620I$ $b = 0.190700 + 1.321380I$	$9.35134 - 3.73596I$	0
$u = -0.499183 - 0.740716I$ $a = -0.31445 + 2.53620I$ $b = 0.190700 - 1.321380I$	$9.35134 + 3.73596I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.052171 + 0.890147I$ $a = 0.328412 - 1.158230I$ $b = -0.038467 + 0.913102I$	$2.43343 + 0.40201I$	0
$u = 0.052171 - 0.890147I$ $a = 0.328412 + 1.158230I$ $b = -0.038467 - 0.913102I$	$2.43343 - 0.40201I$	0
$u = 0.950646 + 0.605652I$ $a = 0.429186 + 0.558810I$ $b = -0.715465 + 0.031647I$	$4.56106 - 4.88116I$	0
$u = 0.950646 - 0.605652I$ $a = 0.429186 - 0.558810I$ $b = -0.715465 - 0.031647I$	$4.56106 + 4.88116I$	0
$u = 0.780546 + 0.387785I$ $a = -0.44848 - 1.91492I$ $b = 0.475862 - 0.756033I$	$6.07407 + 0.41324I$	0
$u = 0.780546 - 0.387785I$ $a = -0.44848 + 1.91492I$ $b = 0.475862 + 0.756033I$	$6.07407 - 0.41324I$	0
$u = 1.023490 + 0.478232I$ $a = 0.332231 - 0.663588I$ $b = 0.645889 + 0.477697I$	$-0.43257 - 4.81082I$	0
$u = 1.023490 - 0.478232I$ $a = 0.332231 + 0.663588I$ $b = 0.645889 - 0.477697I$	$-0.43257 + 4.81082I$	0
$u = 1.057740 + 0.397018I$ $a = 0.655901 - 0.082297I$ $b = -0.095713 - 0.808191I$	$5.03945 - 3.57385I$	0
$u = 1.057740 - 0.397018I$ $a = 0.655901 + 0.082297I$ $b = -0.095713 + 0.808191I$	$5.03945 + 3.57385I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.080720+0.333118I$ $a=\ \ 0.300920-0.879667I$ $b=-0.148834-0.810497I$	$-2.47482+0.35682I$	0
$u=-1.080720-0.333118I$ $a=\ \ 0.300920+0.879667I$ $b=-0.148834+0.810497I$	$-2.47482-0.35682I$	0
$u=-1.073620+0.371045I$ $a=-1.11411+1.47222I$ $b=\ \ 0.075761+0.967597I$	$1.88955-2.80465I$	0
$u=-1.073620-0.371045I$ $a=-1.11411-1.47222I$ $b=\ \ 0.075761-0.967597I$	$1.88955+2.80465I$	0
$u=-1.133280+0.097822I$ $a=\ \ 0.411402-0.098226I$ $b=\ \ 0.436494-0.750592I$	$-1.65161-0.28706I$	0
$u=-1.133280-0.097822I$ $a=\ \ 0.411402+0.098226I$ $b=\ \ 0.436494+0.750592I$	$-1.65161+0.28706I$	0
$u=-0.618815+0.956893I$ $a=\ \ 0.26610+1.73277I$ $b=-0.230480-1.025900I$	$5.27721-4.74019I$	0
$u=-0.618815-0.956893I$ $a=\ \ 0.26610-1.73277I$ $b=-0.230480+1.025900I$	$5.27721+4.74019I$	0
$u=-0.999315+0.557726I$ $a=\ \ 1.56045+1.97365I$ $b=\ \ 0.52231-1.47912I$	$4.25925+10.37730I$	0
$u=-0.999315-0.557726I$ $a=\ \ 1.56045-1.97365I$ $b=\ \ 0.52231+1.47912I$	$4.25925-10.37730I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.026620 + 0.515290I$ $a = 1.50980 - 1.23387I$ $b = 0.443325 + 0.968721I$	$1.66202 - 5.45117I$	0
$u = 1.026620 - 0.515290I$ $a = 1.50980 + 1.23387I$ $b = 0.443325 - 0.968721I$	$1.66202 + 5.45117I$	0
$u = 0.701585 + 0.909646I$ $a = 0.54255 - 1.65656I$ $b = 0.32908 + 1.44257I$	$6.51171 - 3.33192I$	0
$u = 0.701585 - 0.909646I$ $a = 0.54255 + 1.65656I$ $b = 0.32908 - 1.44257I$	$6.51171 + 3.33192I$	0
$u = 0.641433 + 0.954963I$ $a = -0.37001 + 1.68349I$ $b = -0.365328 - 1.355340I$	$10.9047 - 9.1848I$	0
$u = 0.641433 - 0.954963I$ $a = -0.37001 - 1.68349I$ $b = -0.365328 + 1.355340I$	$10.9047 + 9.1848I$	0
$u = -0.384231 + 0.752644I$ $a = -0.66156 + 2.15744I$ $b = 0.011068 - 1.169530I$	$8.86354 + 1.16409I$	0
$u = -0.384231 - 0.752644I$ $a = -0.66156 - 2.15744I$ $b = 0.011068 + 1.169530I$	$8.86354 - 1.16409I$	0
$u = 1.045440 + 0.500289I$ $a = 1.55631 + 0.79175I$ $b = 0.327276 + 0.894070I$	$2.70284 - 9.59229I$	0
$u = 1.045440 - 0.500289I$ $a = 1.55631 - 0.79175I$ $b = 0.327276 - 0.894070I$	$2.70284 + 9.59229I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.164600 + 0.035478I$ $a = 1.195810 - 0.452210I$ $b = 0.842116 + 0.153274I$	$-0.18274 + 6.37415I$	0
$u = 1.164600 - 0.035478I$ $a = 1.195810 + 0.452210I$ $b = 0.842116 - 0.153274I$	$-0.18274 - 6.37415I$	0
$u = 1.064200 + 0.493606I$ $a = -1.44542 + 0.00461I$ $b = -0.421817 - 0.851917I$	$-1.47247 - 6.67780I$	0
$u = 1.064200 - 0.493606I$ $a = -1.44542 - 0.00461I$ $b = -0.421817 + 0.851917I$	$-1.47247 + 6.67780I$	0
$u = -0.970071 + 0.691846I$ $a = -1.25517 - 2.24157I$ $b = -0.459137 + 1.200560I$	$7.92987 + 9.25535I$	0
$u = -0.970071 - 0.691846I$ $a = -1.25517 + 2.24157I$ $b = -0.459137 - 1.200560I$	$7.92987 - 9.25535I$	0
$u = 1.098540 + 0.464721I$ $a = -0.825490 + 0.965885I$ $b = -0.718239 - 0.822930I$	$0.98619 - 6.36772I$	0
$u = 1.098540 - 0.464721I$ $a = -0.825490 - 0.965885I$ $b = -0.718239 + 0.822930I$	$0.98619 + 6.36772I$	0
$u = -0.601887 + 0.524283I$ $a = 1.25899 + 2.22365I$ $b = -0.38381 - 1.43638I$	$5.47043 - 5.91272I$	0
$u = -0.601887 - 0.524283I$ $a = 1.25899 - 2.22365I$ $b = -0.38381 + 1.43638I$	$5.47043 + 5.91272I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.023600+0.643339I$ $a=\ \ 1.39465+1.97316I$ $b=\ \ 0.384228-1.268350I$	$4.21967+8.45540I$	0
$u=-1.023600-0.643339I$ $a=\ \ 1.39465-1.97316I$ $b=\ \ 0.384228+1.268350I$	$4.21967-8.45540I$	0
$u=\ \ 0.777227+0.129594I$ $a=\ \ 0.959945+0.223678I$ $b=\ \ 0.483962-1.070420I$	$0.68261+3.33658I$	0
$u=\ \ 0.777227-0.129594I$ $a=\ \ 0.959945-0.223678I$ $b=\ \ 0.483962+1.070420I$	$0.68261-3.33658I$	0
$u=\ \ 0.201653+0.748321I$ $a=-0.546846+1.052700I$ $b=\ \ 0.476959-0.637820I$	$3.73708+2.01591I$	0
$u=\ \ 0.201653-0.748321I$ $a=-0.546846-1.052700I$ $b=\ \ 0.476959+0.637820I$	$3.73708-2.01591I$	0
$u=-1.062810+0.610540I$ $a=-1.53245-1.90484I$ $b=-0.252757+1.365120I$	$7.67677+8.88951I$	0
$u=-1.062810-0.610540I$ $a=-1.53245+1.90484I$ $b=-0.252757-1.365120I$	$7.67677-8.88951I$	0
$u=\ \ 1.006210+0.701570I$ $a=-1.01339+1.03657I$ $b=\ \ 0.31039-1.54528I$	$9.88701-8.21353I$	0
$u=\ \ 1.006210-0.701570I$ $a=-1.01339-1.03657I$ $b=\ \ 0.31039+1.54528I$	$9.88701+8.21353I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.353560 + 0.686344I$ $a = 0.237192 - 1.370010I$ $b = -0.342356 + 0.951239I$	$3.56741 + 0.97425I$	0
$u = 0.353560 - 0.686344I$ $a = 0.237192 + 1.370010I$ $b = -0.342356 - 0.951239I$	$3.56741 - 0.97425I$	0
$u = 0.982207 + 0.762492I$ $a = 0.87896 - 1.13557I$ $b = -0.20604 + 1.45475I$	$5.64166 - 2.77773I$	0
$u = 0.982207 - 0.762492I$ $a = 0.87896 + 1.13557I$ $b = -0.20604 - 1.45475I$	$5.64166 + 2.77773I$	0
$u = 1.129400 + 0.523555I$ $a = 0.149966 - 0.149458I$ $b = -0.026911 + 0.536085I$	$-0.68138 - 4.96666I$	0
$u = 1.129400 - 0.523555I$ $a = 0.149966 + 0.149458I$ $b = -0.026911 - 0.536085I$	$-0.68138 + 4.96666I$	0
$u = 1.107220 + 0.614084I$ $a = -0.357940 + 0.030959I$ $b = 0.371437 - 0.389310I$	$1.75486 - 7.82536I$	0
$u = 1.107220 - 0.614084I$ $a = -0.357940 - 0.030959I$ $b = 0.371437 + 0.389310I$	$1.75486 + 7.82536I$	0
$u = -1.133710 + 0.580785I$ $a = 1.73765 + 1.14915I$ $b = 0.113348 - 1.120830I$	$6.62756 + 3.91886I$	0
$u = -1.133710 - 0.580785I$ $a = 1.73765 - 1.14915I$ $b = 0.113348 + 1.120830I$	$6.62756 - 3.91886I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.084830+0.668997I$ $a=-0.016927-0.887342I$ $b=-1.251400-0.246759I$	$-0.97454+8.00469I$	0
$u=-1.084830-0.668997I$ $a=-0.016927+0.887342I$ $b=-1.251400+0.246759I$	$-0.97454-8.00469I$	0
$u=-1.100450+0.654244I$ $a=\ \ 0.000708+0.931750I$ $b=\ \ 1.192120+0.180677I$	$3.8981+13.9221I$	0
$u=-1.100450-0.654244I$ $a=\ \ 0.000708-0.931750I$ $b=\ \ 1.192120-0.180677I$	$3.8981-13.9221I$	0
$u=\ \ 0.395128+0.577795I$ $a=\ \ 0.662352-0.202823I$ $b=-0.258732+0.154000I$	$1.50624+0.63678I$	0
$u=\ \ 0.395128-0.577795I$ $a=\ \ 0.662352+0.202823I$ $b=-0.258732-0.154000I$	$1.50624-0.63678I$	0
$u=-1.275160+0.288536I$ $a=\ \ 0.556265+0.526628I$ $b=\ \ 0.573912+1.173870I$	$3.17167+2.22003I$	0
$u=-1.275160-0.288536I$ $a=\ \ 0.556265-0.526628I$ $b=\ \ 0.573912-1.173870I$	$3.17167-2.22003I$	0
$u=\ \ 0.625907+0.283235I$ $a=-1.81089+0.52243I$ $b=-0.436916+1.066190I$	$4.37183+5.81068I$	0
$u=\ \ 0.625907-0.283235I$ $a=-1.81089-0.52243I$ $b=-0.436916-1.066190I$	$4.37183-5.81068I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.146160+0.641935I$ $a=\ 0.197611+0.829437I$ $b=\ 1.041370+0.540878I$	$3.57226+0.90902I$	0
$u=-1.146160-0.641935I$ $a=\ 0.197611-0.829437I$ $b=\ 1.041370-0.540878I$	$3.57226-0.90902I$	0
$u=-1.094860+0.734129I$ $a=\ 0.97485+1.67816I$ $b=\ 0.333132-1.066640I$	$3.76767+10.92770I$	0
$u=-1.094860-0.734129I$ $a=\ 0.97485-1.67816I$ $b=\ 0.333132+1.066640I$	$3.76767-10.92770I$	0
$u=\ 1.056010+0.805725I$ $a=-0.757862+1.005940I$ $b=\ 0.262911-1.335100I$	$9.66032+2.80712I$	0
$u=\ 1.056010-0.805725I$ $a=-0.757862-1.005940I$ $b=\ 0.262911+1.335100I$	$9.66032-2.80712I$	0
$u=-1.329700+0.052146I$ $a=\ 0.579672-0.017659I$ $b=\ 0.506227+1.251760I$	$3.21395-11.38510I$	0
$u=-1.329700-0.052146I$ $a=\ 0.579672+0.017659I$ $b=\ 0.506227-1.251760I$	$3.21395+11.38510I$	0
$u=\ 1.154050+0.675178I$ $a=\ 1.57792-1.47486I$ $b=\ 0.62611+1.33918I$	$7.5740-20.3185I$	0
$u=\ 1.154050-0.675178I$ $a=\ 1.57792+1.47486I$ $b=\ 0.62611-1.33918I$	$7.5740+20.3185I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.156650+0.684773I$ $a=-1.13854-1.37593I$ $b=-0.226020+1.073220I$	$1.17660+6.77733I$	0
$u=-1.156650-0.684773I$ $a=-1.13854+1.37593I$ $b=-0.226020-1.073220I$	$1.17660-6.77733I$	0
$u=1.159470+0.682039I$ $a=-1.51417+1.37920I$ $b=-0.64031-1.34487I$	$2.6220-14.6271I$	0
$u=1.159470-0.682039I$ $a=-1.51417-1.37920I$ $b=-0.64031+1.34487I$	$2.6220+14.6271I$	0
$u=-1.336180+0.318844I$ $a=-0.709587-0.177161I$ $b=-0.182692+0.997650I$	$-2.16590+4.01442I$	0
$u=-1.336180-0.318844I$ $a=-0.709587+0.177161I$ $b=-0.182692-0.997650I$	$-2.16590-4.01442I$	0
$u=1.203850+0.686808I$ $a=1.51283-1.12259I$ $b=0.71844+1.34366I$	$6.15942-7.85351I$	0
$u=1.203850-0.686808I$ $a=1.51283+1.12259I$ $b=0.71844-1.34366I$	$6.15942+7.85351I$	0
$u=-1.401290+0.064881I$ $a=-0.461300-0.060735I$ $b=-0.446894-1.275540I$	$-1.88291-5.32739I$	0
$u=-1.401290-0.064881I$ $a=-0.461300+0.060735I$ $b=-0.446894+1.275540I$	$-1.88291+5.32739I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.42131 + 0.16924I$ $a = -0.014903 - 0.702802I$ $b = -0.019227 + 0.865514I$	$-3.09989 - 2.97045I$	0
$u = 1.42131 - 0.16924I$ $a = -0.014903 + 0.702802I$ $b = -0.019227 - 0.865514I$	$-3.09989 + 2.97045I$	0
$u = 0.117927 + 0.534820I$ $a = 0.001465 + 0.307492I$ $b = 0.315676 - 1.013720I$	$0.81903 + 2.70073I$	$-2.00000 - 5.11544I$
$u = 0.117927 - 0.534820I$ $a = 0.001465 - 0.307492I$ $b = 0.315676 + 1.013720I$	$0.81903 - 2.70073I$	$-2.00000 + 5.11544I$
$u = -0.158677 + 0.456783I$ $a = 0.545024 - 1.146370I$ $b = -0.687236 + 0.017538I$	$0.93325 + 2.38158I$	$-1.41377 - 3.83906I$
$u = -0.158677 - 0.456783I$ $a = 0.545024 + 1.146370I$ $b = -0.687236 - 0.017538I$	$0.93325 - 2.38158I$	$-1.41377 + 3.83906I$
$u = -0.391840 + 0.251747I$ $a = 1.028240 - 0.267682I$ $b = 0.550906 - 0.430609I$	$-1.043840 + 0.852144I$	$-5.50407 - 3.87194I$
$u = -0.391840 - 0.251747I$ $a = 1.028240 + 0.267682I$ $b = 0.550906 + 0.430609I$	$-1.043840 - 0.852144I$	$-5.50407 + 3.87194I$
$u = 1.60607$ $a = -1.41368$ $b = -1.60425$	-7.39818	0
$u = -0.016009 + 0.338498I$ $a = 1.46867 + 1.31692I$ $b = -0.277602 + 1.151600I$	$4.63827 + 5.90569I$	$4.55439 - 6.54282I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.016009-0.338498I$		
$a=\ \ 1.46867-1.31692I$	$4.63827-5.90569I$	$4.55439+6.54282I$
$b=-0.277602-1.151600I$		

II.

$\boldsymbol{I_2^u = \langle -2.06\times 10^8 u^{44}+2.64\times 10^9 u^{43}+\cdots+2.80\times 10^8 b-1.36\times 10^{10},\ -1.21\times 10^{10}u^{44}-2.92\times 10^9 u^{43}+\cdots+8.39\times 10^8 a-5.41\times 10^9,\ u^{45}-14u^{43}+\cdots-9u+3\rangle}$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u \\ -u^3+u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^3 \\ u^5-u^3+u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 14.3864u^{44}+3.47983u^{43}+\cdots-62.0208u+6.44819 \\ 0.735125u^{44}-9.43527u^{43}+\cdots-113.429u+48.7025 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -21.3826u^{44}+23.2195u^{43}+\cdots+248.158u-57.7914 \\ -9.90995u^{44}+12.6579u^{43}+\cdots+112.152u-26.8012 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 70.0347u^{44}-55.1840u^{43}+\cdots-770.387u+194.200 \\ 9.35385u^{44}-7.39135u^{43}+\cdots-83.1329u+32.3156 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 11.0692u^{44}-42.3151u^{43}+\cdots-241.690u+88.9789 \\ -3.23793u^{44}-14.4606u^{43}+\cdots-44.0576u+20.6904 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -21.3826u^{44}+22.2195u^{43}+\cdots+248.158u-57.7914 \\ -9.90995u^{44}+12.6579u^{43}+\cdots+113.152u-26.8012 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 15.1215u^{44}-5.95545u^{43}+\cdots-175.449u+55.1507 \\ 0.735125u^{44}-9.43527u^{43}+\cdots-113.429u+48.7025 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 20.6422u^{44}-38.9962u^{43}+\cdots-106.634u+40.7160 \\ 8.21791u^{44}-1.90426u^{43}+\cdots+16.7274u-5.43927 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{11094634093}{279594103}u^{44}-\frac{7438644211}{279594103}u^{43}+\cdots-\frac{63794950288}{279594103}u-\frac{886923009}{279594103}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{45} - 28u^{44} + \cdots + 183u - 9$
c_2	$u^{45} - 14u^{43} + \cdots - 9u - 3$
c_3	$u^{45} + 21u^{44} + \cdots + 5u + 1$
c_4	$u^{45} - 6u^{43} + \cdots + 15u + 3$
c_5	$u^{45} + 3u^{44} + \cdots + 12u + 1$
c_6	$u^{45} + u^{44} + \cdots + u + 1$
c_7	$u^{45} - 14u^{43} + \cdots - 9u + 3$
c_8	$u^{45} - 3u^{43} + \cdots + 12u + 1$
c_9	$u^{45} - 7u^{44} + \cdots + 13u - 1$
c_{10}	$u^{45} - u^{44} + \cdots + u - 1$
c_{11}	$u^{45} - 2u^{44} + \cdots + 2u - 1$
c_{12}	$u^{45} + 7u^{44} + \cdots + 13u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{45} - 8y^{44} + \cdots - 1197y - 81$
c_2, c_7	$y^{45} - 28y^{44} + \cdots + 183y - 9$
c_3	$y^{45} - y^{44} + \cdots - 17y - 1$
c_4	$y^{45} - 12y^{44} + \cdots + 291y - 9$
c_5	$y^{45} - y^{44} + \cdots + 46y - 1$
c_6, c_{10}	$y^{45} + 19y^{44} + \cdots - 35y - 1$
c_8	$y^{45} - 6y^{44} + \cdots + 116y - 1$
c_9, c_{12}	$y^{45} + 31y^{44} + \cdots + 9y - 1$
c_{11}	$y^{45} - 6y^{44} + \cdots + 36y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.947809 + 0.305574I$ $a = 1.85682 + 0.07236I$ $b = 0.436192 + 1.130770I$	$3.52768 - 7.44394I$	$2.08118 + 8.77686I$
$u = 0.947809 - 0.305574I$ $a = 1.85682 - 0.07236I$ $b = 0.436192 - 1.130770I$	$3.52768 + 7.44394I$	$2.08118 - 8.77686I$
$u = -0.951159 + 0.284825I$ $a = -1.14322 - 1.22982I$ $b = -0.057179 - 0.558033I$	$-3.16927 + 1.13946I$	$-10.11592 - 1.44344I$
$u = -0.951159 - 0.284825I$ $a = -1.14322 + 1.22982I$ $b = -0.057179 + 0.558033I$	$-3.16927 - 1.13946I$	$-10.11592 + 1.44344I$
$u = -0.968011 + 0.338728I$ $a = -0.27699 + 2.42754I$ $b = -0.099732 + 0.609870I$	$0.76831 - 2.21148I$	$-6.70922 + 0.81167I$
$u = -0.968011 - 0.338728I$ $a = -0.27699 - 2.42754I$ $b = -0.099732 - 0.609870I$	$0.76831 + 2.21148I$	$-6.70922 - 0.81167I$
$u = -0.945626 + 0.411263I$ $a = 0.462338 - 0.816959I$ $b = -1.156440 - 0.490738I$	$-1.82207 - 0.41947I$	$-11.05625 + 0.63281I$
$u = -0.945626 - 0.411263I$ $a = 0.462338 + 0.816959I$ $b = -1.156440 + 0.490738I$	$-1.82207 + 0.41947I$	$-11.05625 - 0.63281I$
$u = -0.696855 + 0.771438I$ $a = -0.85194 - 1.88650I$ $b = 0.256428 + 1.233250I$	$6.90755 - 4.20805I$	$5.47212 + 3.72388I$
$u = -0.696855 - 0.771438I$ $a = -0.85194 + 1.88650I$ $b = 0.256428 - 1.233250I$	$6.90755 + 4.20805I$	$5.47212 - 3.72388I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.883323 + 0.332992I$ $a = -0.577896 - 0.899831I$ $b = -0.456747 + 1.219270I$	$3.71731 + 4.76539I$	$1.84468 - 3.19153I$
$u = 0.883323 - 0.332992I$ $a = -0.577896 + 0.899831I$ $b = -0.456747 - 1.219270I$	$3.71731 - 4.76539I$	$1.84468 + 3.19153I$
$u = 0.168187 + 0.919365I$ $a = -0.110980 + 1.250060I$ $b = 0.212712 - 0.861227I$	$2.04567 + 1.12246I$	$-4.60064 - 4.94131I$
$u = 0.168187 - 0.919365I$ $a = -0.110980 - 1.250060I$ $b = 0.212712 + 0.861227I$	$2.04567 - 1.12246I$	$-4.60064 + 4.94131I$
$u = 0.519147 + 0.775496I$ $a = -0.555425 - 0.961309I$ $b = -0.014988 + 0.724426I$	$4.43504 + 3.18421I$	$5.83087 - 4.61697I$
$u = 0.519147 - 0.775496I$ $a = -0.555425 + 0.961309I$ $b = -0.014988 - 0.724426I$	$4.43504 - 3.18421I$	$5.83087 + 4.61697I$
$u = -0.870562 + 0.255402I$ $a = 2.87733 + 0.42507I$ $b = 0.156480 + 0.655159I$	$1.26592 + 4.72462I$	$-2.87660 - 1.12758I$
$u = -0.870562 - 0.255402I$ $a = 2.87733 - 0.42507I$ $b = 0.156480 - 0.655159I$	$1.26592 - 4.72462I$	$-2.87660 + 1.12758I$
$u = -0.829031 + 0.351113I$ $a = 0.38762 + 1.64400I$ $b = 1.145070 - 0.427982I$	$-1.32778 + 3.62805I$	$-3.30796 + 1.26679I$
$u = -0.829031 - 0.351113I$ $a = 0.38762 - 1.64400I$ $b = 1.145070 + 0.427982I$	$-1.32778 - 3.62805I$	$-3.30796 - 1.26679I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.480627+0.716840I$ $a=-0.29200+2.11798I$ $b=-0.428740-1.152210I$	$7.42627-1.74440I$	$4.97155+1.28868I$
$u=-0.480627-0.716840I$ $a=-0.29200-2.11798I$ $b=-0.428740+1.152210I$	$7.42627+1.74440I$	$4.97155-1.28868I$
$u=0.557471+0.652043I$ $a=-0.448328-0.200747I$ $b=0.958388-0.320247I$	$0.58987+1.40557I$	$1.73054-1.77076I$
$u=0.557471-0.652043I$ $a=-0.448328+0.200747I$ $b=0.958388+0.320247I$	$0.58987-1.40557I$	$1.73054+1.77076I$
$u=1.019760+0.530315I$ $a=-0.668591+1.009670I$ $b=-0.924437-0.575905I$	$-0.83829-5.99730I$	$0.+9.88344I$
$u=1.019760-0.530315I$ $a=-0.668591-1.009670I$ $b=-0.924437+0.575905I$	$-0.83829+5.99730I$	$0.-9.88344I$
$u=-0.991698+0.639087I$ $a=-1.09594-2.10199I$ $b=-0.313964+1.302860I$	$5.96272+9.54800I$	0
$u=-0.991698-0.639087I$ $a=-1.09594+2.10199I$ $b=-0.313964-1.302860I$	$5.96272-9.54800I$	0
$u=1.097380+0.518347I$ $a=-0.887514+0.579345I$ $b=-0.442280-0.680263I$	$-0.85244-5.82908I$	0
$u=1.097380-0.518347I$ $a=-0.887514-0.579345I$ $b=-0.442280+0.680263I$	$-0.85244+5.82908I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.065530 + 0.584995I$ $a = 1.396940 + 0.095118I$ $b = 0.028170 + 0.637799I$	$2.73477 - 8.29362I$	0
$u = 1.065530 - 0.584995I$ $a = 1.396940 - 0.095118I$ $b = 0.028170 - 0.637799I$	$2.73477 + 8.29362I$	0
$u = 0.737026 + 0.256133I$ $a = -0.202223 - 0.024856I$ $b = 0.611294 - 1.091710I$	$1.04932 + 2.58085I$	$-0.29998 - 1.67276I$
$u = 0.737026 - 0.256133I$ $a = -0.202223 + 0.024856I$ $b = 0.611294 + 1.091710I$	$1.04932 - 2.58085I$	$-0.29998 + 1.67276I$
$u = -1.091430 + 0.645767I$ $a = 1.61926 + 1.52935I$ $b = 0.509078 - 1.270280I$	$5.59449 + 7.03942I$	0
$u = -1.091430 - 0.645767I$ $a = 1.61926 - 1.52935I$ $b = 0.509078 + 1.270280I$	$5.59449 - 7.03942I$	0
$u = 1.204020 + 0.488233I$ $a = 0.387300 - 0.777569I$ $b = 0.750937 - 0.894572I$	$3.68000 - 1.64209I$	0
$u = 1.204020 - 0.488233I$ $a = 0.387300 + 0.777569I$ $b = 0.750937 + 0.894572I$	$3.68000 + 1.64209I$	0
$u = 1.334470 + 0.143106I$ $a = -0.640922 + 0.104359I$ $b = -0.337684 - 1.142560I$	$-1.61470 - 4.60214I$	0
$u = 1.334470 - 0.143106I$ $a = -0.640922 - 0.104359I$ $b = -0.337684 + 1.142560I$	$-1.61470 + 4.60214I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.372060+0.215211I$ $a=\ \ 0.014569+0.615610I$ $b=-0.114960-0.783314I$	$-3.35910+2.77030I$	0
$u=-1.372060-0.215211I$ $a=\ \ 0.014569-0.615610I$ $b=-0.114960+0.783314I$	$-3.35910-2.77030I$	0
$u=\ \ 0.463195+0.252618I$ $a=-0.04059-1.77064I$ $b=-0.421227-0.880509I$	$6.46206-1.94074I$	$5.94293+2.99498I$
$u=\ \ 0.463195-0.252618I$ $a=-0.04059+1.77064I$ $b=-0.421227+0.880509I$	$6.46206+1.94074I$	$5.94293-2.99498I$
$u=-1.60052$ $a=-1.41929$ $b=-1.59274$	-7.40983	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{45}-28u^{44}+\cdots+183u-9)$ $\cdot(u^{171}+79u^{170}+\cdots+1899636u+157609)$
c_2	$(u^{45}-14u^{43}+\cdots-9u-3)(u^{171}-u^{170}+\cdots+586u-397)$
c_3	$(u^{45}+21u^{44}+\cdots+5u+1)$ $\cdot(u^{171}-16u^{170}+\cdots-105850260074u+6222620143)$
c_4	$(u^{45}-6u^{43}+\cdots+15u+3)(u^{171}+u^{170}+\cdots+6244268u+1871863)$
c_5	$(u^{45}+3u^{44}+\cdots+12u+1)$ $\cdot(u^{171}-24u^{169}+\cdots-319818841u-22221569)$
c_6	$(u^{45}+u^{44}+\cdots+u+1)(u^{171}+2u^{170}+\cdots-92496u-62927)$
c_7	$(u^{45}-14u^{43}+\cdots-9u+3)(u^{171}-u^{170}+\cdots+586u-397)$
c_8	$(u^{45}-3u^{43}+\cdots+12u+1)(u^{171}-5u^{170}+\cdots+7769088u+837632)$
c_9	$(u^{45}-7u^{44}+\cdots+13u-1)(u^{171}-6u^{170}+\cdots-48u+1)$
c_{10}	$(u^{45}-u^{44}+\cdots+u-1)(u^{171}+2u^{170}+\cdots-92496u-62927)$
c_{11}	$(u^{45}-2u^{44}+\cdots+2u-1)$ $\cdot(u^{171}-3u^{170}+\cdots-5954691744u+869790560)$
c_{12}	$(u^{45}+7u^{44}+\cdots+13u+1)(u^{171}-6u^{170}+\cdots-48u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{45} - 8y^{44} + \cdots - 1197y - 81)$ $\cdot (y^{171} + 41y^{170} + \cdots + 2670305620588y - 24840596881)$
c_2, c_7	$(y^{45} - 28y^{44} + \cdots + 183y - 9)$ $\cdot (y^{171} - 79y^{170} + \cdots + 1899636y - 157609)$
c_3	$(y^{45} - y^{44} + \cdots - 17y - 1)(y^{171} - 60y^{170} + \cdots + 3.40966 \times 10^{21}y - 3.87210 \times 10^{19})$
c_4	$(y^{45} - 12y^{44} + \cdots + 291y - 9)$ $\cdot (y^{171} - 39y^{170} + \cdots + 212094663334992y - 3503871090769)$
c_5	$(y^{45} - y^{44} + \cdots + 46y - 1)$ $\cdot (y^{171} - 48y^{170} + \cdots + 23054962778381399y - 493798128821761)$
c_6, c_{10}	$(y^{45} + 19y^{44} + \cdots - 35y - 1)$ $\cdot (y^{171} + 100y^{170} + \cdots - 122657730866y - 3959807329)$
c_8	$(y^{45} - 6y^{44} + \cdots + 116y - 1)$ $\cdot (y^{171} - 29y^{170} + \cdots + 26226872811520y - 701627367424)$
c_9, c_{12}	$(y^{45} + 31y^{44} + \cdots + 9y - 1)(y^{171} + 124y^{170} + \cdots + 6y - 1)$
c_{11}	$(y^{45} - 6y^{44} + \cdots + 36y - 1)$ $\cdot (y^{171} - 61y^{170} + \cdots + 5.18 \times 10^{19}y - 7.57 \times 10^{17})$