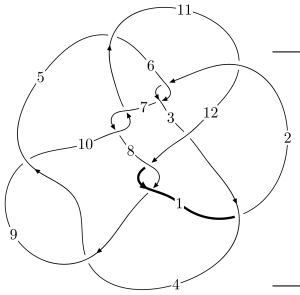
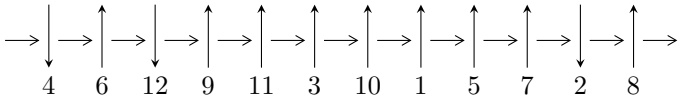
$12a_{1003}$ $(K12a_{1003})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & 3.15863 \times 10^{750} u^{156} - 2.01624 \times 10^{751} u^{155} + \cdots + 4.47851 \times 10^{751} b - 4.21387 \times 10^{753}, \\
& 1.25451 \times 10^{754} u^{156} - 7.61396 \times 10^{754} u^{155} + \cdots + 3.94557 \times 10^{754} a - 1.13568 \times 10^{757}, \\
& u^{157} - 7u^{156} + \cdots - 3640u + 881 \rangle \\
I_2^u = \langle & -5.77380 \times 10^{36} u^{40} + 1.80943 \times 10^{37} u^{39} + \cdots + 5.47191 \times 10^{35} b + 1.17964 \times 10^{37}, \\
& 9.19806 \times 10^{36} u^{40} - 2.98786 \times 10^{37} u^{39} + \cdots + 5.47191 \times 10^{35} a - 2.34136 \times 10^{37},\ u^{41} - 4u^{40} + \cdots - 14u +
\end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 198 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. $\boldsymbol{I_1^u = \langle 3.16 \times 10^{750} u^{156} - 2.02 \times 10^{751} u^{155} + \cdots + 4.48 \times 10^{751} b - 4.21 \times 10^{753},\ 1.25 \times 10^{754} u^{156} - 7.61 \times 10^{754} u^{155} + \cdots + 3.95 \times 10^{754} a - 1.14 \times 10^{757},\ u^{157} - 7u^{156} + \cdots - 3640u + 881 \rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.317955u^{156} + 1.92975u^{155} + \cdots - 902.978u + 287.837 \\ -0.0705285u^{156} + 0.450203u^{155} + \cdots - 249.968u + 94.0908 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.229475u^{156} + 1.38551u^{155} + \cdots - 632.399u + 196.980 \\ -0.0987142u^{156} + 0.620635u^{155} + \cdots - 325.032u + 118.759 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.501830u^{156} + 3.22052u^{155} + \cdots - 1801.63u + 674.638 \\ 0.244119u^{156} - 1.55615u^{155} + \cdots + 854.846u - 312.508 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.247427u^{156} + 1.47955u^{155} + \cdots - 653.011u + 193.746 \\ -0.0705285u^{156} + 0.450203u^{155} + \cdots - 249.968u + 94.0908 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.370563u^{156} - 2.33817u^{155} + \cdots + 1251.94u - 440.591 \\ -0.146125u^{156} + 0.920638u^{155} + \cdots - 493.697u + 177.241 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.0734131u^{156} - 0.454194u^{155} + \cdots + 248.277u - 72.3291 \\ -0.125171u^{156} + 0.773007u^{155} + \cdots - 392.350u + 134.951 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.216606u^{156} - 1.39291u^{155} + \cdots + 853.988u - 318.131 \\ -0.197723u^{156} + 1.25043u^{155} + \cdots - 704.186u + 256.408 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.300574u^{156} + 1.94196u^{155} + \cdots - 1166.78u + 446.927 \\ 0.100662u^{156} - 0.649408u^{155} + \cdots + 395.009u - 145.897 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.305069u^{156} - 2.01170u^{155} + \cdots + 1338.49u - 547.708$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$3(3u^{157} - 52u^{156} + \cdots + 6.59843 \times 10^9 u - 2.50543 \times 10^8)$
c_2, c_6	$u^{157} - 7u^{156} + \cdots - 3640u + 881$
c_3	$u^{157} + 4u^{156} + \cdots - 39323u + 2377$
c_4, c_9	$u^{157} + 2u^{156} + \cdots - 10946982u - 5026927$
c_5	$u^{157} - 2u^{156} + \cdots + 20131088u + 6493917$
c_7, c_{10}	$3(3u^{157} + u^{156} + \cdots + 1673953u + 321907)$
c_8, c_{12}	$u^{157} + u^{156} + \cdots - 122125u - 35417$
c_{11}	$3(3u^{157} - 25u^{156} + \cdots + 1.08396 \times 10^7 u - 673853)$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$9(9y^{157}+458y^{156}+\cdots+1.96481\times10^{19}y-6.27716\times10^{16})$
c_2, c_6	$y^{157}-87y^{156}+\cdots+13639002y-776161$
c_3	$y^{157}-4y^{156}+\cdots-64518507y-5650129$
c_4, c_9	$y^{157}-126y^{156}+\cdots+601275991429812y-25269995063329$
c_5	$y^{157}-18y^{156}+\cdots+2705906604634768y-42170958002889$
c_7, c_{10}	$9(9y^{157}+761y^{156}+\cdots+9.60988\times10^{11}y-1.03624\times10^{11})$
c_8, c_{12}	$y^{157}-97y^{156}+\cdots-7583991957y-1254363889$
c_{11}	$9(9y^{157}+359y^{156}+\cdots+1.54068\times10^{13}y-4.54078\times10^{11})$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.940068 + 0.379267I$ $a = -1.98273 - 0.79700I$ $b = -0.718037 - 0.916494I$	$-0.33928 + 4.05548I$	0
$u = \quad 0.940068 - 0.379267I$ $a = -1.98273 + 0.79700I$ $b = -0.718037 + 0.916494I$	$-0.33928 - 4.05548I$	0
$u = -1.002940 + 0.147287I$ $a = \quad 0.31203 - 2.13291I$ $b = -0.47861 - 2.71346I$	$3.42442 - 0.50214I$	0
$u = -1.002940 - 0.147287I$ $a = \quad 0.31203 + 2.13291I$ $b = -0.47861 + 2.71346I$	$3.42442 + 0.50214I$	0
$u = \quad 0.978634 + 0.274923I$ $a = -2.60228 - 0.80680I$ $b = -0.273961 - 1.107650I$	$-1.97541 + 2.97021I$	0
$u = \quad 0.978634 - 0.274923I$ $a = -2.60228 + 0.80680I$ $b = -0.273961 + 1.107650I$	$-1.97541 - 2.97021I$	0
$u = \quad 0.265237 + 0.981962I$ $a = -0.240104 - 0.491612I$ $b = -0.504910 + 1.246390I$	$-0.38275 - 7.61433I$	0
$u = \quad 0.265237 - 0.981962I$ $a = -0.240104 + 0.491612I$ $b = -0.504910 - 1.246390I$	$-0.38275 + 7.61433I$	0
$u = -0.211521 + 1.002810I$ $a = \quad 0.126460 + 0.448466I$ $b = -0.492969 - 1.161370I$	$-2.21196 + 2.93997I$	0
$u = -0.211521 - 1.002810I$ $a = \quad 0.126460 - 0.448466I$ $b = -0.492969 + 1.161370I$	$-2.21196 - 2.93997I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.930229 + 0.430709I$ $a = 0.861377 - 0.858328I$ $b = 0.301793 + 1.181610I$	$1.63307 + 3.70200I$	0
$u = 0.930229 - 0.430709I$ $a = 0.861377 + 0.858328I$ $b = 0.301793 - 1.181610I$	$1.63307 - 3.70200I$	0
$u = 0.954419 + 0.407482I$ $a = 2.25466 + 0.43323I$ $b = 0.87448 + 1.23260I$	$3.50050 + 10.88190I$	0
$u = 0.954419 - 0.407482I$ $a = 2.25466 - 0.43323I$ $b = 0.87448 - 1.23260I$	$3.50050 - 10.88190I$	0
$u = 0.936944 + 0.189916I$ $a = -1.28703 + 0.78530I$ $b = -0.16370 - 1.41273I$	$-0.01793 + 4.21639I$	0
$u = 0.936944 - 0.189916I$ $a = -1.28703 - 0.78530I$ $b = -0.16370 + 1.41273I$	$-0.01793 - 4.21639I$	0
$u = -0.859317 + 0.409708I$ $a = 1.85769 - 0.47809I$ $b = 0.349445 - 1.015990I$	$-3.38204 - 1.28289I$	0
$u = -0.859317 - 0.409708I$ $a = 1.85769 + 0.47809I$ $b = 0.349445 + 1.015990I$	$-3.38204 + 1.28289I$	0
$u = -0.960538 + 0.419471I$ $a = -2.17983 - 0.60646I$ $b = -0.14648 + 1.45067I$	$0.36542 - 5.39045I$	0
$u = -0.960538 - 0.419471I$ $a = -2.17983 + 0.60646I$ $b = -0.14648 - 1.45067I$	$0.36542 + 5.39045I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.992190+0.354514I$ $a=\ \ 2.28833-1.24116I$ $b=-0.047051-0.824743I$	$-0.018463-1.000730I$	0
$u=-0.992190-0.354514I$ $a=\ \ 2.28833+1.24116I$ $b=-0.047051+0.824743I$	$-0.018463+1.000730I$	0
$u=-0.926433+0.168451I$ $a=-0.57961+1.98870I$ $b=\ \ 0.41787+2.35059I$	$3.26391-0.62070I$	0
$u=-0.926433-0.168451I$ $a=-0.57961-1.98870I$ $b=\ \ 0.41787-2.35059I$	$3.26391+0.62070I$	0
$u=-0.980262+0.428091I$ $a=-1.80985+0.31282I$ $b=-0.495296+1.319170I$	$-1.48693-6.48155I$	0
$u=-0.980262-0.428091I$ $a=-1.80985-0.31282I$ $b=-0.495296-1.319170I$	$-1.48693+6.48155I$	0
$u=\ \ 0.315999+0.874305I$ $a=\ \ 0.104004+0.663777I$ $b=-0.142592-1.028540I$	$-2.03809+2.27481I$	0
$u=\ \ 0.315999-0.874305I$ $a=\ \ 0.104004-0.663777I$ $b=-0.142592+1.028540I$	$-2.03809-2.27481I$	0
$u=-0.892387+0.605370I$ $a=-1.32596-1.08784I$ $b=-0.026964+0.698522I$	$7.95098+0.39175I$	0
$u=-0.892387-0.605370I$ $a=-1.32596+1.08784I$ $b=-0.026964-0.698522I$	$7.95098-0.39175I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.991081+0.435230I$		
$a=$	$1.83298+0.02853I$	$0.06925+2.18252I$	0
$b=$	$0.065159+0.986675I$		
$u=$	$0.991081-0.435230I$		
$a=$	$1.83298-0.02853I$	$0.06925-2.18252I$	0
$b=$	$0.065159-0.986675I$		
$u=$	$-0.886814+0.221578I$		
$a=$	$0.12838+1.89687I$	$4.12367-9.20788I$	0
$b=$	$0.209064-1.216420I$		
$u=$	$-0.886814-0.221578I$		
$a=$	$0.12838-1.89687I$	$4.12367+9.20788I$	0
$b=$	$0.209064+1.216420I$		
$u=$	$-0.099493+0.902011I$		
$a=$	$-0.112461-0.621935I$	$6.76073-7.93427I$	0
$b=$	$1.007580+0.245193I$		
$u=$	$-0.099493-0.902011I$		
$a=$	$-0.112461+0.621935I$	$6.76073+7.93427I$	0
$b=$	$1.007580-0.245193I$		
$u=$	$0.145222+0.883203I$		
$a=$	$-0.054889-0.346944I$	$1.84082+3.69658I$	0
$b=$	$-0.480987-0.231183I$		
$u=$	$0.145222-0.883203I$		
$a=$	$-0.054889+0.346944I$	$1.84082-3.69658I$	0
$b=$	$-0.480987+0.231183I$		
$u=$	$1.084780+0.276644I$		
$a=$	$1.45784-0.01347I$	$6.32272-0.59511I$	0
$b=$	$1.38168+0.42360I$		
$u=$	$1.084780-0.276644I$		
$a=$	$1.45784+0.01347I$	$6.32272+0.59511I$	0
$b=$	$1.38168-0.42360I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.832564+0.276094I$ $a=-2.75557+1.24139I$ $b=\ \ 0.192524+0.825234I$	$4.07125+6.86786I$	0
$u=-0.832564-0.276094I$ $a=-2.75557-1.24139I$ $b=\ \ 0.192524-0.825234I$	$4.07125-6.86786I$	0
$u=\ \ 0.850835+0.208150I$ $a=\ \ 2.37851+0.82111I$ $b=\ \ 0.019601+1.135210I$	$-0.23173-2.34391I$	0
$u=\ \ 0.850835-0.208150I$ $a=\ \ 2.37851-0.82111I$ $b=\ \ 0.019601-1.135210I$	$-0.23173+2.34391I$	0
$u=\ \ 1.12981$ $a=-3.99219$ $b=-4.88139$	3.09144	0
$u=-0.365591+1.071290I$ $a=\ \ 0.186799-0.445736I$ $b=\ \ 0.227281+1.054610I$	$-3.89586+2.83855I$	0
$u=-0.365591-1.071290I$ $a=\ \ 0.186799+0.445736I$ $b=\ \ 0.227281-1.054610I$	$-3.89586-2.83855I$	0
$u=\ \ 0.478428+1.032730I$ $a=\ \ 0.435406-0.192254I$ $b=\ \ 0.258703+1.148930I$	$3.36390+5.17164I$	0
$u=\ \ 0.478428-1.032730I$ $a=\ \ 0.435406+0.192254I$ $b=\ \ 0.258703-1.148930I$	$3.36390-5.17164I$	0
$u=-0.237037+1.121450I$ $a=-0.106545-0.177285I$ $b=\ \ 0.686097+1.017130I$	$-0.84670+4.70707I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.237037-1.121450I$ $a=-0.106545+0.177285I$ $b=\ 0.686097-1.017130I$	$-0.84670-4.70707I$	0
$u=\ 1.104340+0.348730I$ $a=\ 1.46389-0.72900I$ $b=\ 0.937774-0.617346I$	$10.37710+0.95074I$	0
$u=\ 1.104340-0.348730I$ $a=\ 1.46389+0.72900I$ $b=\ 0.937774+0.617346I$	$10.37710-0.95074I$	0
$u=-0.841215$ $a=-2.76910$ $b=-1.75348$	2.54729	0
$u=-1.136070+0.230671I$ $a=-1.29900-0.66394I$ $b=-1.30305-0.67519I$	$4.27709-0.89813I$	0
$u=-1.136070-0.230671I$ $a=-1.29900+0.66394I$ $b=-1.30305+0.67519I$	$4.27709+0.89813I$	0
$u=\ 0.251700+1.132310I$ $a=\ 0.104662+0.399000I$ $b=\ 0.605145-1.263170I$	$3.5771-13.7736I$	0
$u=\ 0.251700-1.132310I$ $a=\ 0.104662-0.399000I$ $b=\ 0.605145+1.263170I$	$3.5771+13.7736I$	0
$u=\ 1.149430+0.195951I$ $a=\ 0.767670-0.224887I$ $b=\ 0.326737-0.396732I$	$2.24833+0.22726I$	0
$u=\ 1.149430-0.195951I$ $a=\ 0.767670+0.224887I$ $b=\ 0.326737+0.396732I$	$2.24833-0.22726I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.672945 + 0.969555I$ $a = -0.264643 + 0.570375I$ $b = 0.136864 - 1.248680I$	$-1.78286 + 2.99407I$	0
$u = 0.672945 - 0.969555I$ $a = -0.264643 - 0.570375I$ $b = 0.136864 + 1.248680I$	$-1.78286 - 2.99407I$	0
$u = -0.010867 + 0.811017I$ $a = 0.511690 + 0.149434I$ $b = 0.432928 - 1.084160I$	$4.97082 - 2.02878I$	0
$u = -0.010867 - 0.811017I$ $a = 0.511690 - 0.149434I$ $b = 0.432928 + 1.084160I$	$4.97082 + 2.02878I$	0
$u = 0.085142 + 0.800877I$ $a = -0.243327 + 0.386628I$ $b = -0.902161 - 0.085459I$	$3.15585 - 2.56260I$	0
$u = 0.085142 - 0.800877I$ $a = -0.243327 - 0.386628I$ $b = -0.902161 + 0.085459I$	$3.15585 + 2.56260I$	0
$u = -1.004230 + 0.683340I$ $a = 0.97985 + 1.09057I$ $b = 0.303988 - 0.921871I$	$8.33164 - 5.55456I$	0
$u = -1.004230 - 0.683340I$ $a = 0.97985 - 1.09057I$ $b = 0.303988 + 0.921871I$	$8.33164 + 5.55456I$	0
$u = -1.145370 + 0.409179I$ $a = 0.975786 + 0.319146I$ $b = 0.683907 + 0.293022I$	$1.48505 - 4.76360I$	0
$u = -1.145370 - 0.409179I$ $a = 0.975786 - 0.319146I$ $b = 0.683907 - 0.293022I$	$1.48505 + 4.76360I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.202660+0.183165I$ $a=\ \ 1.61782+0.22186I$ $b=\ \ 0.898146+0.290670I$	$11.72880-4.15665I$	0
$u=-1.202660-0.183165I$ $a=\ \ 1.61782-0.22186I$ $b=\ \ 0.898146-0.290670I$	$11.72880+4.15665I$	0
$u=\ \ 0.588847+1.087180I$ $a=\ \ 0.224007-0.403410I$ $b=-0.470988+0.978656I$	$-1.74500-0.96923I$	0
$u=\ \ 0.588847-1.087180I$ $a=\ \ 0.224007+0.403410I$ $b=-0.470988-0.978656I$	$-1.74500+0.96923I$	0
$u=\ \ 0.746225+0.148692I$ $a=\ \ 0.10192-1.63298I$ $b=-0.112447+1.272250I$	$-2.96443-0.78009I$	0
$u=\ \ 0.746225-0.148692I$ $a=\ \ 0.10192+1.63298I$ $b=-0.112447-1.272250I$	$-2.96443+0.78009I$	0
$u=-0.651169+0.358375I$ $a=\ \ 0.0686270+0.1063040I$ $b=\ \ 0.099793+1.322930I$	$-4.02210-2.18252I$	0
$u=-0.651169-0.358375I$ $a=\ \ 0.0686270-0.1063040I$ $b=\ \ 0.099793-1.322930I$	$-4.02210+2.18252I$	0
$u=\ \ 0.741751$ $a=-2.68029$ $b=-0.520214$	0.202774	0
$u=\ \ 1.230640+0.312614I$ $a=-0.509647+0.563531I$ $b=-0.806516+0.810081I$	$2.89561+0.98168I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.230640 - 0.312614I$ $a = -0.509647 - 0.563531I$ $b = -0.806516 - 0.810081I$	$2.89561 - 0.98168I$	0
$u = -1.212490 + 0.378927I$ $a = -1.36189 - 0.50506I$ $b = -0.936228 + 0.342973I$	$7.09906 - 1.53094I$	0
$u = -1.212490 - 0.378927I$ $a = -1.36189 + 0.50506I$ $b = -0.936228 - 0.342973I$	$7.09906 + 1.53094I$	0
$u = 0.558577 + 0.455748I$ $a = 0.179935 - 0.395736I$ $b = 0.53765 - 1.34383I$	$2.34201 - 7.23201I$	0
$u = 0.558577 - 0.455748I$ $a = 0.179935 + 0.395736I$ $b = 0.53765 + 1.34383I$	$2.34201 + 7.23201I$	0
$u = 1.192890 + 0.477029I$ $a = -1.24954 + 0.68647I$ $b = -1.112830 + 0.099371I$	$6.43229 + 7.19422I$	0
$u = 1.192890 - 0.477029I$ $a = -1.24954 - 0.68647I$ $b = -1.112830 - 0.099371I$	$6.43229 - 7.19422I$	0
$u = -1.221780 + 0.411210I$ $a = -1.174480 + 0.753815I$ $b = -0.038183 + 0.577436I$	$6.83236 - 7.95836I$	0
$u = -1.221780 - 0.411210I$ $a = -1.174480 - 0.753815I$ $b = -0.038183 - 0.577436I$	$6.83236 + 7.95836I$	0
$u = -0.395248 + 0.575371I$ $a = 0.470642 + 0.159566I$ $b = -0.241293 - 1.308030I$	$-3.07407 + 2.55513I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.395248-0.575371I$ $a=\ \ 0.470642-0.159566I$ $b=-0.241293+1.308030I$	$-3.07407-2.55513I$	0
$u=-0.303975+1.268120I$ $a=-0.074618+0.413208I$ $b=-0.324522-1.163040I$	$-1.80731+6.48795I$	0
$u=-0.303975-1.268120I$ $a=-0.074618-0.413208I$ $b=-0.324522+1.163040I$	$-1.80731-6.48795I$	0
$u=-1.282640+0.235647I$ $a=-0.542191-0.790232I$ $b=-0.572683-1.001490I$	$5.05464+3.67482I$	0
$u=-1.282640-0.235647I$ $a=-0.542191+0.790232I$ $b=-0.572683+1.001490I$	$5.05464-3.67482I$	0
$u=\ \ 1.150710+0.622498I$ $a=\ \ 1.365570-0.160083I$ $b=\ \ 0.304017+1.166240I$	$-0.01137+2.86857I$	0
$u=\ \ 1.150710-0.622498I$ $a=\ \ 1.365570+0.160083I$ $b=\ \ 0.304017-1.166240I$	$-0.01137-2.86857I$	0
$u=\ \ 0.652610+0.228509I$ $a=-1.45929+0.45221I$ $b=-0.491252+1.211040I$	$-1.40841-1.03482I$	0
$u=\ \ 0.652610-0.228509I$ $a=-1.45929-0.45221I$ $b=-0.491252-1.211040I$	$-1.40841+1.03482I$	0
$u=\ \ 1.230150+0.457183I$ $a=\ \ 1.86862+0.30880I$ $b=\ \ 0.595300+1.112310I$	$8.63806+6.58263I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$1.230150-0.457183I$		
$a=$	$1.86862-0.30880I$	$8.63806-6.58263I$	0
$b=$	$0.595300-1.112310I$		
$u=$	$-1.221880+0.483922I$		
$a=$	$0.118880+0.850668I$	$8.47557-2.60885I$	0
$b=$	$0.413748+0.836255I$		
$u=$	$-1.221880-0.483922I$		
$a=$	$0.118880-0.850668I$	$8.47557+2.60885I$	0
$b=$	$0.413748-0.836255I$		
$u=$	$-0.002924+0.668001I$		
$a=$	$-0.954122-0.485700I$	$3.24415+3.94333I$	$6.66242-2.43245I$
$b=$	$0.490361-0.836450I$		
$u=$	$-0.002924-0.668001I$		
$a=$	$-0.954122+0.485700I$	$3.24415-3.94333I$	$6.66242+2.43245I$
$b=$	$0.490361+0.836450I$		
$u=$	$1.335730+0.026665I$		
$a=$	$-0.766227-0.149316I$	$5.90993-1.81141I$	0
$b=$	$-0.575550+0.484274I$		
$u=$	$1.335730-0.026665I$		
$a=$	$-0.766227+0.149316I$	$5.90993+1.81141I$	0
$b=$	$-0.575550-0.484274I$		
$u=$	$-1.297560+0.347143I$		
$a=$	$1.67211-0.54276I$	$8.77602-9.22171I$	0
$b=$	$0.498888-1.215030I$		
$u=$	$-1.297560-0.347143I$		
$a=$	$1.67211+0.54276I$	$8.77602+9.22171I$	0
$b=$	$0.498888+1.215030I$		
$u=$	$1.272610+0.446499I$		
$a=$	$1.29018-0.61789I$	$10.8950+12.6205I$	0
$b=$	$1.49289-0.13590I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.272610 - 0.446499I$ $a = 1.29018 + 0.61789I$ $b = 1.49289 + 0.13590I$	$10.8950 - 12.6205I$	0
$u = -1.276700 + 0.442942I$ $a = -1.205910 - 0.120530I$ $b = -0.917739 + 0.240078I$	$6.06059 - 8.31394I$	0
$u = -1.276700 - 0.442942I$ $a = -1.205910 + 0.120530I$ $b = -0.917739 - 0.240078I$	$6.06059 + 8.31394I$	0
$u = -1.246350 + 0.566226I$ $a = -1.55700 - 0.00197I$ $b = -0.67386 + 1.38478I$	$1.02219 - 8.52879I$	0
$u = -1.246350 - 0.566226I$ $a = -1.55700 + 0.00197I$ $b = -0.67386 - 1.38478I$	$1.02219 + 8.52879I$	0
$u = 1.233860 + 0.594092I$ $a = -1.76189 + 0.07564I$ $b = -0.60762 - 1.33298I$	$2.62811 + 13.31030I$	0
$u = 1.233860 - 0.594092I$ $a = -1.76189 - 0.07564I$ $b = -0.60762 + 1.33298I$	$2.62811 - 13.31030I$	0
$u = -1.240350 + 0.632271I$ $a = 1.43435 + 0.05998I$ $b = 0.431199 - 1.141240I$	$-1.05661 - 8.93991I$	0
$u = -1.240350 - 0.632271I$ $a = 1.43435 - 0.05998I$ $b = 0.431199 + 1.141240I$	$-1.05661 + 8.93991I$	0
$u = 0.494053 + 0.335352I$ $a = -2.52144 + 0.77520I$ $b = 0.358875 - 0.463582I$	$0.494586 - 0.137656I$	$7.45584 - 1.59904I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.494053 - 0.335352I$ $a = -2.52144 - 0.77520I$ $b = 0.358875 + 0.463582I$	$0.494586 + 0.137656I$	$7.45584 + 1.59904I$
$u = 0.385856 + 1.352480I$ $a = -0.053478 - 0.324748I$ $b = 0.121422 + 0.675308I$	$1.23920 + 4.73510I$	0
$u = 0.385856 - 1.352480I$ $a = -0.053478 + 0.324748I$ $b = 0.121422 - 0.675308I$	$1.23920 - 4.73510I$	0
$u = 1.224880 + 0.697393I$ $a = -1.236250 + 0.323383I$ $b = -0.599822 - 1.246190I$	$0.49490 + 7.51247I$	0
$u = 1.224880 - 0.697393I$ $a = -1.236250 - 0.323383I$ $b = -0.599822 + 1.246190I$	$0.49490 - 7.51247I$	0
$u = -1.310030 + 0.532093I$ $a = 1.105320 + 0.488741I$ $b = 0.985273 - 0.830058I$	$10.35490 + 2.57565I$	0
$u = -1.310030 - 0.532093I$ $a = 1.105320 - 0.488741I$ $b = 0.985273 + 0.830058I$	$10.35490 - 2.57565I$	0
$u = -1.27900 + 0.61571I$ $a = 1.48471 + 0.10969I$ $b = 0.93189 - 1.31791I$	$2.45284 - 10.82650I$	0
$u = -1.27900 - 0.61571I$ $a = 1.48471 - 0.10969I$ $b = 0.93189 + 1.31791I$	$2.45284 + 10.82650I$	0
$u = -0.165472 + 0.550175I$ $a = 0.767560 + 0.697747I$ $b = 0.216684 + 0.026415I$	$-1.35785 + 0.98752I$	$-1.29117 - 3.08551I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.165472-0.550175I$ $a=\ 0.767560-0.697747I$ $b=\ 0.216684-0.026415I$	$-1.35785-0.98752I$	$-1.29117+3.08551I$
$u=-0.545304+0.159279I$ $a=\ 1.95040-1.87491I$ $b=-0.169129+1.173590I$	$-1.50821-1.86231I$	$6.40525+3.46383I$
$u=-0.545304-0.159279I$ $a=\ 1.95040+1.87491I$ $b=-0.169129-1.173590I$	$-1.50821+1.86231I$	$6.40525-3.46383I$
$u=\ 1.29038+0.63282I$ $a=\ 1.60527-0.08443I$ $b=\ 0.70327+1.41141I$	$6.8673+20.0217I$	0
$u=\ 1.29038-0.63282I$ $a=\ 1.60527+0.08443I$ $b=\ 0.70327-1.41141I$	$6.8673-20.0217I$	0
$u=\ 1.43902$ $a=\ 0.780025$ $b=\ 1.03725$	5.83550	0
$u=\ 1.35818+0.53888I$ $a=-0.523752+0.129492I$ $b=-0.373814-0.226537I$	$5.33089+1.99737I$	0
$u=\ 1.35818-0.53888I$ $a=-0.523752-0.129492I$ $b=-0.373814+0.226537I$	$5.33089-1.99737I$	0
$u=-1.31789+0.66541I$ $a=-1.332690-0.031115I$ $b=-0.475609+1.322890I$	$1.52411-13.21170I$	0
$u=-1.31789-0.66541I$ $a=-1.332690+0.031115I$ $b=-0.475609-1.322890I$	$1.52411+13.21170I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.47475+0.19041I$ $a=\ \ 0.545867+0.521383I$ $b=\ \ 0.732973+0.913287I$	$9.88142+8.82156I$	0
$u=-1.47475-0.19041I$ $a=\ \ 0.545867-0.521383I$ $b=\ \ 0.732973-0.913287I$	$9.88142-8.82156I$	0
$u=\ \ 1.14686+0.96038I$ $a=-0.605008+0.398906I$ $b=-0.040711-0.781129I$	$5.56411+4.17240I$	0
$u=\ \ 1.14686-0.96038I$ $a=-0.605008-0.398906I$ $b=-0.040711+0.781129I$	$5.56411-4.17240I$	0
$u=\ \ 1.43125+0.50049I$ $a=-0.783624-0.155756I$ $b=-0.357655-0.747380I$	$5.30313+2.18170I$	0
$u=\ \ 1.43125-0.50049I$ $a=-0.783624+0.155756I$ $b=-0.357655+0.747380I$	$5.30313-2.18170I$	0
$u=-0.251646+0.406807I$ $a=\ \ 0.33318+2.40544I$ $b=-0.299432-1.319180I$	$-1.29282+1.80020I$	$4.94387-1.81085I$
$u=-0.251646-0.406807I$ $a=\ \ 0.33318-2.40544I$ $b=-0.299432+1.319180I$	$-1.29282-1.80020I$	$4.94387+1.81085I$
$u=\ \ 0.148503+0.430126I$ $a=\ \ 1.72457-0.16017I$ $b=\ \ 0.757884+0.163023I$	$7.69657+2.17921I$	$12.55242-1.74361I$
$u=\ \ 0.148503-0.430126I$ $a=\ \ 1.72457+0.16017I$ $b=\ \ 0.757884-0.163023I$	$7.69657-2.17921I$	$12.55242+1.74361I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.51878 + 0.52537I$ $a = 0.084289 - 0.175239I$ $b = 0.196709 - 0.743397I$	$6.81087 + 2.00402I$	0
$u = 1.51878 - 0.52537I$ $a = 0.084289 + 0.175239I$ $b = 0.196709 + 0.743397I$	$6.81087 - 2.00402I$	0
$u = 1.31809 + 0.95094I$ $a = 0.658199 - 0.294699I$ $b = 0.224219 + 0.989431I$	$6.01781 + 4.00616I$	0
$u = 1.31809 - 0.95094I$ $a = 0.658199 + 0.294699I$ $b = 0.224219 - 0.989431I$	$6.01781 - 4.00616I$	0
$u = 0.287127$ $a = 0.871320$ $b = -0.364949$	0.698705	14.8840
$u = -0.079945 + 0.266084I$ $a = 1.26621 - 2.63233I$ $b = -0.627100 - 0.274595I$	$1.55586 - 0.49268I$	$7.54332 - 0.87240I$
$u = -0.079945 - 0.266084I$ $a = 1.26621 + 2.63233I$ $b = -0.627100 + 0.274595I$	$1.55586 + 0.49268I$	$7.54332 + 0.87240I$

II. $I_2^u = \langle -5.77\times10^{36}u^{40} + 1.81\times10^{37}u^{39} + \cdots + 5.47\times10^{35}b + 1.18\times10^{37},\ 9.20\times10^{36}u^{40} - 2.99\times10^{37}u^{39} + \cdots + 5.47\times10^{35}a - 2.34\times10^{37},\ u^{41} - 4u^{40} + \cdots - 14u + 1\rangle$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -16.8096u^{40} + 54.6037u^{39} + \cdots - 384.073u + 42.7887 \\ 10.5517u^{40} - 33.0677u^{39} + \cdots + 269.069u - 21.5581 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -16.9731u^{40} + 54.5664u^{39} + \cdots - 410.223u + 44.7456 \\ 11.0764u^{40} - 34.7335u^{39} + \cdots + 285.706u - 22.8237 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 30.5945u^{40} - 95.7357u^{39} + \cdots + 875.525u - 74.5861 \\ -8.61959u^{40} + 29.7151u^{39} + \cdots - 163.847u + 13.6794 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -27.3613u^{40} + 87.6713u^{39} + \cdots - 653.141u + 64.3468 \\ 10.5517u^{40} - 33.0677u^{39} + \cdots + 269.069u - 21.5581 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -20.1539u^{40} + 66.6605u^{39} + \cdots - 446.233u + 43.2720 \\ -0.275367u^{40} - 0.762074u^{39} + \cdots - 37.1858u + 2.13928 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -6.85898u^{40} + 28.4853u^{39} + \cdots - 34.2569u + 15.9890 \\ -1.93221u^{40} + 8.54124u^{39} + \cdots + 39.0987u - 2.84229 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -47.1489u^{40} + 168.905u^{39} + \cdots - 560.928u + 56.2909 \\ 9.62933u^{40} - 32.9306u^{39} + \cdots + 180.770u - 14.8886 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 28.0943u^{40} - 101.022u^{39} + \cdots + 359.949u - 43.5567 \\ -8.58248u^{40} + 29.6857u^{39} + \cdots - 152.110u + 12.8916 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 78.7593u^{40} - 271.272u^{39} + \cdots + 1093.59u - 89.1575$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$3(3u^{41}+13u^{40}+\cdots-13u+1)$
c_2	$u^{41}+4u^{40}+\cdots-14u-1$
c_3	$u^{41}-3u^{40}+\cdots+u+1$
c_4	$u^{41}+u^{40}+\cdots+4u+1$
c_5	$u^{41}-u^{40}+\cdots-98u+21$
c_6	$u^{41}-4u^{40}+\cdots-14u+1$
c_7	$3(3u^{41}+38u^{40}+\cdots+7u+1)$
c_8	$u^{41}-9u^{39}+\cdots-19u-1$
c_9	$u^{41}-u^{40}+\cdots+4u-1$
c_{10}	$3(3u^{41}-38u^{40}+\cdots+7u-1)$
c_{11}	$3(3u^{41}-26u^{40}+\cdots-3u+1)$
c_{12}	$u^{41}-9u^{39}+\cdots-19u+1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$9(9y^{41} - 343y^{40} + \cdots + 29y - 1)$
c_2, c_6	$y^{41} - 20y^{40} + \cdots + 164y - 1$
c_3	$y^{41} - 9y^{40} + \cdots + 15y - 1$
c_4, c_9	$y^{41} - 39y^{40} + \cdots + 14y - 1$
c_5	$y^{41} + 9y^{40} + \cdots + 14098y - 441$
c_7, c_{10}	$9(9y^{41} - 112y^{40} + \cdots - 245y - 1)$
c_8, c_{12}	$y^{41} - 18y^{40} + \cdots + 261y - 1$
c_{11}	$9(9y^{41} - 298y^{40} + \cdots + 23y - 1)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.967192+0.276575I$ $a=-2.34467+1.19064I$ $b=-0.513333+1.085480I$	$-0.05487-3.00795I$	$10.53277+3.04890I$
$u=-0.967192-0.276575I$ $a=-2.34467-1.19064I$ $b=-0.513333-1.085480I$	$-0.05487+3.00795I$	$10.53277-3.04890I$
$u=\ 0.917296+0.374401I$ $a=-1.93922+0.77186I$ $b=-0.235092-1.333590I$	$-1.07814+4.47132I$	$3.31883-6.44593I$
$u=\ 0.917296-0.374401I$ $a=-1.93922-0.77186I$ $b=-0.235092+1.333590I$	$-1.07814-4.47132I$	$3.31883+6.44593I$
$u=\ 0.957227+0.369955I$ $a=\ 2.11553+0.67760I$ $b=\ 0.047538+0.842774I$	$-1.28013+1.50111I$	$4.03097-2.30869I$
$u=\ 0.957227-0.369955I$ $a=\ 2.11553-0.67760I$ $b=\ 0.047538-0.842774I$	$-1.28013-1.50111I$	$4.03097+2.30869I$
$u=\ 0.530210+0.810440I$ $a=\ 0.710976-0.666761I$ $b=-0.315679+1.151370I$	$-2.42496-0.20996I$	$2.55692-2.02439I$
$u=\ 0.530210-0.810440I$ $a=\ 0.710976+0.666761I$ $b=-0.315679-1.151370I$	$-2.42496+0.20996I$	$2.55692+2.02439I$
$u=-0.957972+0.430465I$ $a=\ 1.41892+1.18660I$ $b=\ 0.646242-0.047894I$	$8.98186+0.39614I$	$15.1411+0.I$
$u=-0.957972-0.430465I$ $a=\ 1.41892-1.18660I$ $b=\ 0.646242+0.047894I$	$8.98186-0.39614I$	$15.1411+0.I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.10437$ $a=-5.17172$ $b=-6.08818$	3.11824	205.070
$u=\ \ 0.886514$ $a=-3.03550$ $b=-1.93867$	2.73703	29.8820
$u=\ \ 0.412391+0.751176I$ $a=-0.288581+1.215010I$ $b=-0.051027-1.286210I$	$-1.61210+4.07460I$	$5.53794-6.18665I$
$u=\ \ 0.412391-0.751176I$ $a=-0.288581-1.215010I$ $b=-0.051027+1.286210I$	$-1.61210-4.07460I$	$5.53794+6.18665I$
$u=-1.034310+0.494300I$ $a=-0.892975-0.699136I$ $b=-0.0244412+0.0814704I$	$9.25914-4.28800I$	$14.2709+3.4191I$
$u=-1.034310-0.494300I$ $a=-0.892975+0.699136I$ $b=-0.0244412-0.0814704I$	$9.25914+4.28800I$	$14.2709-3.4191I$
$u=-0.286646+1.124780I$ $a=\ \ 0.054480+0.327935I$ $b=-0.559946-1.046810I$	$-2.21574+3.68999I$	$6.00000-8.07545I$
$u=-0.286646-1.124780I$ $a=\ \ 0.054480-0.327935I$ $b=-0.559946+1.046810I$	$-2.21574-3.68999I$	$6.00000+8.07545I$
$u=-0.800978+0.205134I$ $a=-1.065430+0.712656I$ $b=-0.367763-1.235220I$	$-0.769602+0.776118I$	$12.89317+1.67571I$
$u=-0.800978-0.205134I$ $a=-1.065430-0.712656I$ $b=-0.367763+1.235220I$	$-0.769602-0.776118I$	$12.89317-1.67571I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.386012 + 0.663461I$ $a = 0.444495 + 0.472978I$ $b = -0.147129 - 1.096260I$	$-2.95452 + 2.14772I$	$-0.86553 - 3.38082I$
$u = 0.386012 - 0.663461I$ $a = 0.444495 - 0.472978I$ $b = -0.147129 + 1.096260I$	$-2.95452 - 2.14772I$	$-0.86553 + 3.38082I$
$u = 1.231620 + 0.160871I$ $a = -1.124090 + 0.424481I$ $b = -1.302950 + 0.441045I$	$4.15697 + 0.17532I$	0
$u = 1.231620 - 0.160871I$ $a = -1.124090 - 0.424481I$ $b = -1.302950 - 0.441045I$	$4.15697 - 0.17532I$	0
$u = -1.266290 + 0.322271I$ $a = 1.39309 - 0.89120I$ $b = 0.518096 - 0.955301I$	$6.90593 - 9.52644I$	0
$u = -1.266290 - 0.322271I$ $a = 1.39309 + 0.89120I$ $b = 0.518096 + 0.955301I$	$6.90593 + 9.52644I$	0
$u = 0.279885 + 1.313700I$ $a = 0.066965 - 0.177930I$ $b = 0.252183 + 0.794730I$	$1.00126 + 5.06650I$	0
$u = 0.279885 - 1.313700I$ $a = 0.066965 + 0.177930I$ $b = 0.252183 - 0.794730I$	$1.00126 - 5.06650I$	0
$u = 0.655115 + 0.018638I$ $a = 1.52419 + 1.39024I$ $b = -0.034102 - 1.225130I$	$-3.06353 + 1.37351I$	$2.29163 - 5.49510I$
$u = 0.655115 - 0.018638I$ $a = 1.52419 - 1.39024I$ $b = -0.034102 + 1.225130I$	$-3.06353 - 1.37351I$	$2.29163 + 5.49510I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.643826+0.045739I$ $a=\ \ 2.09848+1.89990I$ $b=\ \ 0.380025-1.158640I$	$3.72596-8.23668I$	$8.54707+5.16332I$
$u=-0.643826-0.045739I$ $a=\ \ 2.09848-1.89990I$ $b=\ \ 0.380025+1.158640I$	$3.72596+8.23668I$	$8.54707-5.16332I$
$u=-1.267810+0.617591I$ $a=-1.46734-0.11750I$ $b=-0.73768+1.30815I$	$0.95752-9.82258I$	0
$u=-1.267810-0.617591I$ $a=-1.46734+0.11750I$ $b=-0.73768-1.30815I$	$0.95752+9.82258I$	0
$u=\ \ 1.39694+0.47967I$ $a=\ \ 0.174461-0.228758I$ $b=\ \ 0.304501-0.460096I$	$5.36194+1.49175I$	0
$u=\ \ 1.39694-0.47967I$ $a=\ \ 0.174461+0.228758I$ $b=\ \ 0.304501+0.460096I$	$5.36194-1.49175I$	0
$u=\ \ 1.11046+1.02409I$ $a=\ \ 0.522862-0.518226I$ $b=\ \ 0.196296+0.895503I$	$5.34780+4.81823I$	0
$u=\ \ 1.11046-1.02409I$ $a=\ \ 0.522862+0.518226I$ $b=\ \ 0.196296-0.895503I$	$5.34780-4.81823I$	0
$u=\ \ 1.41533+0.76051I$ $a=-0.735876+0.009228I$ $b=-0.123930-0.841675I$	$6.57758+3.22162I$	0
$u=\ \ 1.41533-0.76051I$ $a=-0.735876-0.009228I$ $b=-0.123930+0.841675I$	$6.57758-3.22162I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.0829231$		
$a = 12.2081$	-0.543185	0.991690
$b = -0.503450$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$9(3u^{41}+13u^{40}+\cdots-13u+1)$ $\cdot(3u^{157}-52u^{156}+\cdots+6598433823u-250542571)$
c_2	$(u^{41}+4u^{40}+\cdots-14u-1)(u^{157}-7u^{156}+\cdots-3640u+881)$
c_3	$(u^{41}-3u^{40}+\cdots+u+1)(u^{157}+4u^{156}+\cdots-39323u+2377)$
c_4	$(u^{41}+u^{40}+\cdots+4u+1)(u^{157}+2u^{156}+\cdots-1.09470\times10^{7}u-5026927)$
c_5	$(u^{41}-u^{40}+\cdots-98u+21)$ $\cdot(u^{157}-2u^{156}+\cdots+20131088u+6493917)$
c_6	$(u^{41}-4u^{40}+\cdots-14u+1)(u^{157}-7u^{156}+\cdots-3640u+881)$
c_7	$9(3u^{41}+38u^{40}+\cdots+7u+1)$ $\cdot(3u^{157}+u^{156}+\cdots+1673953u+321907)$
c_8	$(u^{41}-9u^{39}+\cdots-19u-1)(u^{157}+u^{156}+\cdots-122125u-35417)$
c_9	$(u^{41}-u^{40}+\cdots+4u-1)(u^{157}+2u^{156}+\cdots-1.09470\times10^{7}u-5026927)$
c_{10}	$9(3u^{41}-38u^{40}+\cdots+7u-1)$ $\cdot(3u^{157}+u^{156}+\cdots+1673953u+321907)$
c_{11}	$9(3u^{41}-26u^{40}+\cdots-3u+1)$ $\cdot(3u^{157}-25u^{156}+\cdots+10839641u-673853)$
c_{12}	$(u^{41}-9u^{39}+\cdots-19u+1)(u^{157}+u^{156}+\cdots-122125u-35417)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$81(9y^{41}-343y^{40}+\cdots+29y-1)$ $\cdot(9y^{157}+458y^{156}+\cdots+1.96\times10^{19}y-6.28\times10^{16})$
c_2, c_6	$(y^{41}-20y^{40}+\cdots+164y-1)$ $\cdot(y^{157}-87y^{156}+\cdots+13639002y-776161)$
c_3	$(y^{41}-9y^{40}+\cdots+15y-1)$ $\cdot(y^{157}-4y^{156}+\cdots-64518507y-5650129)$
c_4, c_9	$(y^{41}-39y^{40}+\cdots+14y-1)$ $\cdot(y^{157}-126y^{156}+\cdots+601275991429812y-25269995063329)$
c_5	$(y^{41}+9y^{40}+\cdots+14098y-441)$ $\cdot(y^{157}-18y^{156}+\cdots+2705906604634768y-42170958002889)$
c_7, c_{10}	$81(9y^{41}-112y^{40}+\cdots-245y-1)$ $\cdot(9y^{157}+761y^{156}+\cdots+960988298873y-103624116649)$
c_8, c_{12}	$(y^{41}-18y^{40}+\cdots+261y-1)$ $\cdot(y^{157}-97y^{156}+\cdots-7583991957y-1254363889)$
c_{11}	$81(9y^{41}-298y^{40}+\cdots+23y-1)$ $\cdot(9y^{157}+359y^{156}+\cdots+15406796408681y-454077865609)$