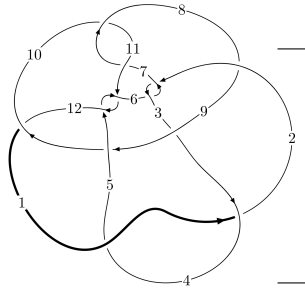
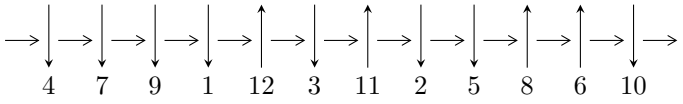
$12a_{1069}$ $(K12a_{1069})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -3.51005 \times 10^{774} u^{158} + 1.44047 \times 10^{775} u^{157} + \cdots + 1.24689 \times 10^{774} b + 4.06181 \times 10^{776}, \\ & - 3.52571 \times 10^{776} u^{158} + 1.70406 \times 10^{777} u^{157} + \cdots + 5.11223 \times 10^{775} a + 8.33651 \times 10^{778}, \\ & u^{159} - 5u^{158} + \cdots - 1836u + 41 \rangle \\ I_2^u = \langle & -1.15427 \times 10^{39} u^{41} - 3.52555 \times 10^{39} u^{40} + \cdots + 2.16791 \times 10^{39} b + 3.15442 \times 10^{39}, \\ & - 1.18323 \times 10^{38} u^{41} + 1.54707 \times 10^{39} u^{40} + \cdots + 3.68545 \times 10^{40} a + 4.04012 \times 10^{41}, \\ & u^{42} + 4u^{41} + \cdots + 81u + 17 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 201 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. $\boldsymbol{I_1^u = \langle -3.51 \times 10^{774} u^{158} + 1.44 \times 10^{775} u^{157} + \cdots + 1.25 \times 10^{774} b + 4.06 \times 10^{776},\ -3.53 \times 10^{776} u^{158} + 1.70 \times 10^{777} u^{157} + \cdots + 5.11 \times 10^{775} a + 8.34 \times 10^{778},\ u^{159} - 5u^{158} + \cdots - 1836u + 41 \rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

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

$$a_{10} = \begin{pmatrix} 6.89661u^{158} - 33.3329u^{157} + \cdots + 62395.2u - 1630.70 \\ 2.81505u^{158} - 11.5525u^{157} + \cdots + 12205.5u - 325.757 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 9.71167u^{158} - 44.8855u^{157} + \cdots + 74600.7u - 1956.46 \\ 2.81505u^{158} - 11.5525u^{157} + \cdots + 12205.5u - 325.757 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 12.2156u^{158} - 58.2653u^{157} + \cdots + 118758.u - 2988.83 \\ -0.707859u^{158} + 4.12082u^{157} + \cdots - 1849.09u + 41.7737 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 9.18241u^{158} - 43.6668u^{157} + \cdots + 78859.8u - 2060.49 \\ 2.35801u^{158} - 9.73562u^{157} + \cdots + 10545.6u - 280.259 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -8.75638u^{158} + 42.9843u^{157} + \cdots - 81724.3u + 2101.75 \\ -2.38010u^{158} + 12.1412u^{157} + \cdots - 20129.1u + 507.031 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 8.53022u^{158} - 41.2871u^{157} + \cdots + 59998.2u - 1469.69 \\ -1.94140u^{158} + 9.07101u^{157} + \cdots - 15520.2u + 397.134 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 10.0548u^{158} - 50.2105u^{157} + \cdots + 95588.8u - 2414.43 \\ 0.727499u^{158} - 4.63539u^{157} + \cdots + 16528.9u - 415.930 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 14.1659u^{158} - 70.1808u^{157} + \cdots + 124297.u - 3139.38 \\ 0.119106u^{158} + 0.550360u^{157} + \cdots - 1796.57u + 44.4550 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -6.97728u^{158} + 30.2719u^{157} + \cdots - 100238.u + 2580.10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{159} - 5u^{158} + \cdots - 1836u + 41$
c_2, c_6	$u^{159} + 5u^{158} + \cdots + 1580u + 304$
c_3	$u^{159} + u^{158} + \cdots + 107562u + 9857$
c_5, c_{11}	$u^{159} - u^{158} + \cdots + 76831096u + 4906757$
c_7, c_{10}	$u^{159} - 13u^{158} + \cdots + 677715u + 119125$
c_8	$u^{159} - u^{158} + \cdots + 186934042u + 51574948$
c_9	$u^{159} - 3u^{158} + \cdots - 52u + 4$
c_{12}	$u^{159} - 11u^{158} + \cdots + 267u - 7$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{159} + 115y^{158} + \cdots + 133618y - 1681$
c_2, c_6	$y^{159} + 77y^{158} + \cdots - 4109520y - 92416$
c_3	$y^{159} + 29y^{158} + \cdots - 3124719192y - 97160449$
c_5, c_{11}	$y^{159} + 121y^{158} + \cdots - 799516959728630y - 24076264257049$
c_7, c_{10}	$y^{159} + 89y^{158} + \cdots - 542898621275y - 14190765625$
c_8	$y^{159} + 37y^{158} + \cdots - 77763978165498852y - 2659975261202704$
c_9	$y^{159} - y^{158} + \cdots + 232y - 16$
c_{12}	$y^{159} - 3y^{158} + \cdots - 1021y - 49$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.983003+0.097556I$ $a=-0.905981+0.783265I$ $b=\ \ 0.934039-0.432894I$	$-3.48952+3.13704I$	0
$u=-0.983003-0.097556I$ $a=-0.905981-0.783265I$ $b=\ \ 0.934039+0.432894I$	$-3.48952-3.13704I$	0
$u=\ \ 0.262735+0.984218I$ $a=\ \ 0.16813+2.67086I$ $b=\ \ 0.207483-0.022035I$	$-1.89883-9.65845I$	0
$u=\ \ 0.262735-0.984218I$ $a=\ \ 0.16813-2.67086I$ $b=\ \ 0.207483+0.022035I$	$-1.89883+9.65845I$	0
$u=-0.072291+1.016920I$ $a=\ \ 1.84966-0.36433I$ $b=-1.183920-0.349302I$	$-2.19049-2.79781I$	0
$u=-0.072291-1.016920I$ $a=\ \ 1.84966+0.36433I$ $b=-1.183920+0.349302I$	$-2.19049+2.79781I$	0
$u=-0.652432+0.783430I$ $a=-0.830407+0.000594I$ $b=\ \ 0.110772-0.942984I$	$-0.00445+3.94039I$	0
$u=-0.652432-0.783430I$ $a=-0.830407-0.000594I$ $b=\ \ 0.110772+0.942984I$	$-0.00445-3.94039I$	0
$u=-0.950490+0.166511I$ $a=-1.126060+0.618081I$ $b=\ \ 1.032190-0.478096I$	$-3.92600+3.26823I$	0
$u=-0.950490-0.166511I$ $a=-1.126060-0.618081I$ $b=\ \ 1.032190+0.478096I$	$-3.92600-3.26823I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.851291+0.434377I$ $a=\ \ 0.311298+0.923022I$ $b=-1.042790-0.658033I$	$-5.65361-5.39741I$	0
$u=-0.851291-0.434377I$ $a=\ \ 0.311298-0.923022I$ $b=-1.042790+0.658033I$	$-5.65361+5.39741I$	0
$u=\ \ 0.934381+0.185617I$ $a=\ \ 1.184470+0.642059I$ $b=-1.090390-0.698765I$	$-1.86192-7.90269I$	0
$u=\ \ 0.934381-0.185617I$ $a=\ \ 1.184470-0.642059I$ $b=-1.090390+0.698765I$	$-1.86192+7.90269I$	0
$u=-0.847254+0.622429I$ $a=-1.63548+0.29444I$ $b=\ \ 0.869924-0.384480I$	$-3.23728+4.12131I$	0
$u=-0.847254-0.622429I$ $a=-1.63548-0.29444I$ $b=\ \ 0.869924+0.384480I$	$-3.23728-4.12131I$	0
$u=\ \ 1.015730+0.311644I$ $a=-0.456332-0.250158I$ $b=\ \ 0.577816+0.440695I$	$2.95523-2.92644I$	0
$u=\ \ 1.015730-0.311644I$ $a=-0.456332+0.250158I$ $b=\ \ 0.577816-0.440695I$	$2.95523+2.92644I$	0
$u=\ \ 0.115278+1.067290I$ $a=-1.98050+0.59487I$ $b=\ \ 1.050540+0.384631I$	$-4.30533-3.63876I$	0
$u=\ \ 0.115278-1.067290I$ $a=-1.98050-0.59487I$ $b=\ \ 1.050540-0.384631I$	$-4.30533+3.63876I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.413513+0.992313I$ $a=-0.057299-0.888608I$ $b=\ \ 0.337087-0.064058I$	$-1.34325+1.67571I$	0
$u=-0.413513-0.992313I$ $a=-0.057299+0.888608I$ $b=\ \ 0.337087+0.064058I$	$-1.34325-1.67571I$	0
$u=\ \ 0.921357+0.023903I$ $a=-1.206310-0.280219I$ $b=\ \ 0.754672+0.729094I$	$1.17655-2.63113I$	0
$u=\ \ 0.921357-0.023903I$ $a=-1.206310+0.280219I$ $b=\ \ 0.754672-0.729094I$	$1.17655+2.63113I$	0
$u=-0.568235+0.923405I$ $a=\ \ 2.16017+0.32915I$ $b=-0.833918+0.365907I$	$-4.76772+1.69228I$	0
$u=-0.568235-0.923405I$ $a=\ \ 2.16017-0.32915I$ $b=-0.833918-0.365907I$	$-4.76772-1.69228I$	0
$u=-0.783936+0.763202I$ $a=-1.043350-0.257920I$ $b=\ \ 0.652172+0.119959I$	$-2.77404+2.12200I$	0
$u=-0.783936-0.763202I$ $a=-1.043350+0.257920I$ $b=\ \ 0.652172-0.119959I$	$-2.77404-2.12200I$	0
$u=-0.095068+1.101760I$ $a=-0.804842+0.168058I$ $b=\ \ 1.10857+1.09401I$	$2.15146+1.17756I$	0
$u=-0.095068-1.101760I$ $a=-0.804842-0.168058I$ $b=\ \ 1.10857-1.09401I$	$2.15146-1.17756I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.275780 + 1.079820I$ $a = -0.284380 + 0.013054I$ $b = 1.43790 - 0.36118I$	$4.15676 - 1.83454I$	0
$u = 0.275780 - 1.079820I$ $a = -0.284380 - 0.013054I$ $b = 1.43790 + 0.36118I$	$4.15676 + 1.83454I$	0
$u = 0.137011 + 1.109380I$ $a = 0.829175 + 0.017328I$ $b = -1.80619 + 0.82016I$	$2.76013 - 5.49964I$	0
$u = 0.137011 - 1.109380I$ $a = 0.829175 - 0.017328I$ $b = -1.80619 - 0.82016I$	$2.76013 + 5.49964I$	0
$u = 0.333959 + 1.067410I$ $a = -1.122490 + 0.566095I$ $b = 1.32230 + 1.26257I$	$-5.85781 - 5.61332I$	0
$u = 0.333959 - 1.067410I$ $a = -1.122490 - 0.566095I$ $b = 1.32230 - 1.26257I$	$-5.85781 + 5.61332I$	0
$u = 0.109084 + 1.121110I$ $a = 1.025720 - 0.430618I$ $b = -1.082320 - 0.873258I$	$2.49323 - 2.69223I$	0
$u = 0.109084 - 1.121110I$ $a = 1.025720 + 0.430618I$ $b = -1.082320 + 0.873258I$	$2.49323 + 2.69223I$	0
$u = -0.438082 + 1.045600I$ $a = 1.025350 + 0.431480I$ $b = -1.25068 + 1.43317I$	$-3.71389 + 10.11860I$	0
$u = -0.438082 - 1.045600I$ $a = 1.025350 - 0.431480I$ $b = -1.25068 - 1.43317I$	$-3.71389 - 10.11860I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.014654 + 1.139180I$ $a = -0.562738 + 0.315991I$ $b = 0.564706 + 1.116770I$	$3.22415 + 0.73688I$	0
$u = 0.014654 - 1.139180I$ $a = -0.562738 - 0.315991I$ $b = 0.564706 - 1.116770I$	$3.22415 - 0.73688I$	0
$u = 0.308295 + 1.096870I$ $a = 0.52699 - 1.40288I$ $b = -0.485566 - 0.753443I$	$1.18819 - 6.98145I$	0
$u = 0.308295 - 1.096870I$ $a = 0.52699 + 1.40288I$ $b = -0.485566 + 0.753443I$	$1.18819 + 6.98145I$	0
$u = -0.001128 + 1.140600I$ $a = -0.582365 - 0.382519I$ $b = 1.61446 - 1.64283I$	$5.93599 + 0.51307I$	0
$u = -0.001128 - 1.140600I$ $a = -0.582365 + 0.382519I$ $b = 1.61446 + 1.64283I$	$5.93599 - 0.51307I$	0
$u = -0.424052 + 1.062030I$ $a = -0.458241 - 0.851448I$ $b = 0.408574 - 0.585436I$	$-1.19827 + 2.83973I$	0
$u = -0.424052 - 1.062030I$ $a = -0.458241 + 0.851448I$ $b = 0.408574 + 0.585436I$	$-1.19827 - 2.83973I$	0
$u = 1.146040 + 0.106327I$ $a = -1.021420 - 0.625931I$ $b = 1.023560 + 0.708859I$	$-5.0798 - 14.2322I$	0
$u = 1.146040 - 0.106327I$ $a = -1.021420 + 0.625931I$ $b = 1.023560 - 0.708859I$	$-5.0798 + 14.2322I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.175515+0.818846I$ $a=-1.49084+0.98958I$ $b=-0.362976+0.223371I$	$-2.65407+3.80739I$	0
$u=-0.175515-0.818846I$ $a=-1.49084-0.98958I$ $b=-0.362976-0.223371I$	$-2.65407-3.80739I$	0
$u=-1.163510+0.077092I$ $a=\ \ 1.077740-0.553936I$ $b=-0.963438+0.632912I$	$-7.60337+7.20007I$	0
$u=-1.163510-0.077092I$ $a=\ \ 1.077740+0.553936I$ $b=-0.963438-0.632912I$	$-7.60337-7.20007I$	0
$u=-0.091768+1.179150I$ $a=\ \ 1.46092+1.48732I$ $b=-0.587165+0.834068I$	$0.68628+8.86779I$	0
$u=-0.091768-1.179150I$ $a=\ \ 1.46092-1.48732I$ $b=-0.587165-0.834068I$	$0.68628-8.86779I$	0
$u=\ \ 0.041123+1.184510I$ $a=-0.06731-1.55543I$ $b=-0.022792-1.314180I$	$4.14378+0.96316I$	0
$u=\ \ 0.041123-1.184510I$ $a=-0.06731+1.55543I$ $b=-0.022792+1.314180I$	$4.14378-0.96316I$	0
$u=\ \ 0.164864+1.174420I$ $a=-0.210654+0.060628I$ $b=\ \ 1.12081-2.09509I$	$0.64915-10.18830I$	0
$u=\ \ 0.164864-1.174420I$ $a=-0.210654-0.060628I$ $b=\ \ 1.12081+2.09509I$	$0.64915+10.18830I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.788660+0.106997I$ $a=\ \ 1.033770+0.690716I$ $b=-1.230520-0.630294I$	$-6.65504+1.64532I$	0
$u=-0.788660-0.106997I$ $a=\ \ 1.033770-0.690716I$ $b=-1.230520+0.630294I$	$-6.65504-1.64532I$	0
$u=\ \ 0.060722+1.211390I$ $a=\ \ 0.751741+0.958545I$ $b=-0.165253+0.832349I$	$7.43721-1.74221I$	0
$u=\ \ 0.060722-1.211390I$ $a=\ \ 0.751741-0.958545I$ $b=-0.165253-0.832349I$	$7.43721+1.74221I$	0
$u=\ \ 0.003687+1.217980I$ $a=\ \ 0.0700409+0.0402742I$ $b=-0.43571+2.54163I$	$4.75789-1.82912I$	0
$u=\ \ 0.003687-1.217980I$ $a=\ \ 0.0700409-0.0402742I$ $b=-0.43571-2.54163I$	$4.75789+1.82912I$	0
$u=-0.193386+1.207390I$ $a=\ \ 0.188401+0.037577I$ $b=-0.70698-1.63742I$	$-1.50086+4.59312I$	0
$u=-0.193386-1.207390I$ $a=\ \ 0.188401-0.037577I$ $b=-0.70698+1.63742I$	$-1.50086-4.59312I$	0
$u=\ \ 0.183793+1.213240I$ $a=\ \ 0.907044-0.142688I$ $b=-1.98948-0.42433I$	$2.90680-1.42079I$	0
$u=\ \ 0.183793-1.213240I$ $a=\ \ 0.907044+0.142688I$ $b=-1.98948+0.42433I$	$2.90680+1.42079I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.627098 + 0.447087I$ $a = -0.32854 + 1.40130I$ $b = 1.026920 - 0.606499I$	$-7.77749 + 1.91968I$	0
$u = 0.627098 - 0.447087I$ $a = -0.32854 - 1.40130I$ $b = 1.026920 + 0.606499I$	$-7.77749 - 1.91968I$	0
$u = -0.141977 + 1.221860I$ $a = -1.346330 - 0.415106I$ $b = 0.543036 - 0.570651I$	$5.04712 + 5.26418I$	0
$u = -0.141977 - 1.221860I$ $a = -1.346330 + 0.415106I$ $b = 0.543036 + 0.570651I$	$5.04712 - 5.26418I$	0
$u = 0.205971 + 0.738308I$ $a = 1.274430 - 0.591253I$ $b = -0.271927 - 1.170190I$	$0.331400 - 0.769003I$	0
$u = 0.205971 - 0.738308I$ $a = 1.274430 + 0.591253I$ $b = -0.271927 + 1.170190I$	$0.331400 + 0.769003I$	0
$u = 0.305069 + 1.197710I$ $a = -0.995342 + 0.829799I$ $b = 1.11872 + 1.27000I$	$-5.04299 - 6.15443I$	0
$u = 0.305069 - 1.197710I$ $a = -0.995342 - 0.829799I$ $b = 1.11872 - 1.27000I$	$-5.04299 + 6.15443I$	0
$u = -1.173300 + 0.393749I$ $a = -0.692357 + 0.098145I$ $b = 0.654865 - 0.086175I$	$-3.07709 + 2.26890I$	0
$u = -1.173300 - 0.393749I$ $a = -0.692357 - 0.098145I$ $b = 0.654865 + 0.086175I$	$-3.07709 - 2.26890I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.839621 + 0.918614I$ $a = 0.129052 - 0.621999I$ $b = -0.495009 + 0.268867I$	$0.40893 + 2.34033I$	0
$u = 0.839621 - 0.918614I$ $a = 0.129052 + 0.621999I$ $b = -0.495009 - 0.268867I$	$0.40893 - 2.34033I$	0
$u = 0.175189 + 1.246850I$ $a = -0.862744 - 1.003070I$ $b = -0.140349 - 0.100770I$	$2.85087 - 4.08721I$	0
$u = 0.175189 - 1.246850I$ $a = -0.862744 + 1.003070I$ $b = -0.140349 + 0.100770I$	$2.85087 + 4.08721I$	0
$u = -0.067340 + 1.270330I$ $a = 0.408550 + 0.069827I$ $b = -1.02840 + 1.27400I$	$4.29299 + 2.61263I$	0
$u = -0.067340 - 1.270330I$ $a = 0.408550 - 0.069827I$ $b = -1.02840 - 1.27400I$	$4.29299 - 2.61263I$	0
$u = -0.397277 + 1.212520I$ $a = 0.817384 + 0.679351I$ $b = -1.18154 + 1.29689I$	$-3.24632 + 2.67324I$	0
$u = -0.397277 - 1.212520I$ $a = 0.817384 - 0.679351I$ $b = -1.18154 - 1.29689I$	$-3.24632 - 2.67324I$	0
$u = 0.493189 + 0.516484I$ $a = -2.65853 - 0.71851I$ $b = 0.915593 + 0.059259I$	$-3.11486 + 6.45315I$	0
$u = 0.493189 - 0.516484I$ $a = -2.65853 + 0.71851I$ $b = 0.915593 - 0.059259I$	$-3.11486 - 6.45315I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.092930+1.300000I$ $a=-0.870612-0.111977I$ $b=\ \ 1.96085-0.60001I$	$3.04844+6.27130I$	0
$u=-0.092930-1.300000I$ $a=-0.870612+0.111977I$ $b=\ \ 1.96085+0.60001I$	$3.04844-6.27130I$	0
$u=-0.685448$ $a=\ \ 0.468053$ $b=-0.597021$	-1.12036	0
$u=\ \ 0.638524+0.179656I$ $a=\ \ 1.38306+0.75692I$ $b=-0.468998-0.759543I$	$0.201716-1.058600I$	0
$u=\ \ 0.638524-0.179656I$ $a=\ \ 1.38306-0.75692I$ $b=-0.468998+0.759543I$	$0.201716+1.058600I$	0
$u=\ \ 1.349190+0.002299I$ $a=\ \ 0.236669+0.472121I$ $b=-0.384410-0.523118I$	$0.56968-6.99452I$	0
$u=\ \ 1.349190-0.002299I$ $a=\ \ 0.236669-0.472121I$ $b=-0.384410+0.523118I$	$0.56968+6.99452I$	0
$u=\ \ 0.623931+0.163788I$ $a=-1.17478+1.22579I$ $b=\ \ 1.088520-0.784829I$	$-8.22040+2.67993I$	0
$u=\ \ 0.623931-0.163788I$ $a=-1.17478-1.22579I$ $b=\ \ 1.088520+0.784829I$	$-8.22040-2.67993I$	0
$u=-0.321401+1.319470I$ $a=\ \ 0.681363-0.509348I$ $b=\ \ 0.0567607+0.0911619I$	$0.52301+1.73785I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.321401-1.319470I$ $a=\ 0.681363+0.509348I$ $b=\ 0.0567607-0.0911619I$	$0.52301-1.73785I$	0
$u=\ 0.554273+0.320207I$ $a=\ 1.57099-0.15035I$ $b=-0.860666+0.543631I$	$-1.10054+3.56270I$	0
$u=\ 0.554273-0.320207I$ $a=\ 1.57099+0.15035I$ $b=-0.860666-0.543631I$	$-1.10054-3.56270I$	0
$u=\ 0.415920+1.306080I$ $a=\ 1.153440-0.436132I$ $b=-0.97988-1.02084I$	$4.47440-5.26538I$	0
$u=\ 0.415920-1.306080I$ $a=\ 1.153440+0.436132I$ $b=-0.97988+1.02084I$	$4.47440+5.26538I$	0
$u=-0.392121+0.458186I$ $a=\ 1.93038+1.72825I$ $b=-0.217180-0.544416I$	$-5.79139+2.57763I$	0
$u=-0.392121-0.458186I$ $a=\ 1.93038-1.72825I$ $b=-0.217180+0.544416I$	$-5.79139-2.57763I$	0
$u=\ 0.498152+1.314960I$ $a=-1.203800+0.678645I$ $b=\ 0.889094+0.878136I$	$5.24891-7.76605I$	0
$u=\ 0.498152-1.314960I$ $a=-1.203800-0.678645I$ $b=\ 0.889094-0.878136I$	$5.24891+7.76605I$	0
$u=\ 0.585696+0.036722I$ $a=\ 1.47684+1.80006I$ $b=-0.980896-0.162976I$	$-0.90081+1.24163I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.585696 - 0.036722I$ $a = 1.47684 - 1.80006I$ $b = -0.980896 + 0.162976I$	$-0.90081 - 1.24163I$	0
$u = -0.068886 + 0.576147I$ $a = 1.70741 + 2.63697I$ $b = 0.129075 - 0.386641I$	$-5.84260 + 2.58738I$	0
$u = -0.068886 - 0.576147I$ $a = 1.70741 - 2.63697I$ $b = 0.129075 + 0.386641I$	$-5.84260 - 2.58738I$	0
$u = -0.66516 + 1.27037I$ $a = 0.479731 - 0.091818I$ $b = -0.327478 + 1.014060I$	$1.45416 + 2.12787I$	0
$u = -0.66516 - 1.27037I$ $a = 0.479731 + 0.091818I$ $b = -0.327478 - 1.014060I$	$1.45416 - 2.12787I$	0
$u = -0.40090 + 1.37697I$ $a = 0.651150 + 0.196026I$ $b = -0.781934 + 0.978337I$	$3.54829 + 4.04462I$	0
$u = -0.40090 - 1.37697I$ $a = 0.651150 - 0.196026I$ $b = -0.781934 - 0.978337I$	$3.54829 - 4.04462I$	0
$u = 0.42828 + 1.38045I$ $a = 0.986656 - 0.485942I$ $b = -1.28510 - 1.20208I$	$3.01513 - 12.78290I$	0
$u = 0.42828 - 1.38045I$ $a = 0.986656 + 0.485942I$ $b = -1.28510 + 1.20208I$	$3.01513 + 12.78290I$	0
$u = -0.45030 + 1.38547I$ $a = -0.946219 - 0.390744I$ $b = 1.31288 - 1.02610I$	$0.90900 + 8.31060I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.45030-1.38547I$ $a=-0.946219+0.390744I$ $b=\ \ 1.31288+1.02610I$	$0.90900-8.31060I$	0
$u=-0.48041+1.37776I$ $a=-0.975494-0.279077I$ $b=\ \ 1.26991-0.97916I$	$1.16979+8.39778I$	0
$u=-0.48041-1.37776I$ $a=-0.975494+0.279077I$ $b=\ \ 1.26991+0.97916I$	$1.16979-8.39778I$	0
$u=\ \ 0.44758+1.39307I$ $a=-0.751781+0.296963I$ $b=\ \ 0.791040+1.125350I$	$8.08346-8.06603I$	0
$u=\ \ 0.44758-1.39307I$ $a=-0.751781-0.296963I$ $b=\ \ 0.791040-1.125350I$	$8.08346+8.06603I$	0
$u=\ \ 0.38990+1.43821I$ $a=-0.730918+0.084514I$ $b=\ \ 0.613687+0.897211I$	$6.36186+0.98726I$	0
$u=\ \ 0.38990-1.43821I$ $a=-0.730918-0.084514I$ $b=\ \ 0.613687-0.897211I$	$6.36186-0.98726I$	0
$u=-0.53639+1.39454I$ $a=\ \ 1.115380+0.437471I$ $b=-1.19992+1.00998I$	$-3.00880+13.13970I$	0
$u=-0.53639-1.39454I$ $a=\ \ 1.115380-0.437471I$ $b=-1.19992-1.00998I$	$-3.00880-13.13970I$	0
$u=\ \ 0.52415+1.40394I$ $a=-1.075370+0.419853I$ $b=\ \ 1.23933+1.14077I$	$-0.3631-20.0880I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.52415 - 1.40394I$ $a = -1.075370 - 0.419853I$ $b = 1.23933 - 1.14077I$	$-0.3631 + 20.0880I$	0
$u = 0.78386 + 1.29449I$ $a = -0.368549 - 0.250869I$ $b = -0.029000 + 0.866927I$	$2.18628 - 4.71388I$	0
$u = 0.78386 - 1.29449I$ $a = -0.368549 + 0.250869I$ $b = -0.029000 - 0.866927I$	$2.18628 + 4.71388I$	0
$u = 0.56334 + 1.40577I$ $a = 0.858617 - 0.116384I$ $b = -0.798105 - 1.152220I$	$5.1032 - 13.4075I$	0
$u = 0.56334 - 1.40577I$ $a = 0.858617 + 0.116384I$ $b = -0.798105 + 1.152220I$	$5.1032 + 13.4075I$	0
$u = -0.53614 + 1.42235I$ $a = -0.832917 - 0.189352I$ $b = 0.930177 - 0.916480I$	$2.14861 + 8.38014I$	0
$u = -0.53614 - 1.42235I$ $a = -0.832917 + 0.189352I$ $b = 0.930177 + 0.916480I$	$2.14861 - 8.38014I$	0
$u = 0.55182 + 1.43665I$ $a = 0.702511 - 0.178622I$ $b = -0.542462 - 0.679018I$	$6.93660 - 4.06539I$	0
$u = 0.55182 - 1.43665I$ $a = 0.702511 + 0.178622I$ $b = -0.542462 + 0.679018I$	$6.93660 + 4.06539I$	0
$u = -0.24583 + 1.53378I$ $a = 0.096647 + 0.152461I$ $b = -0.841106 + 0.024861I$	$-1.57240 + 5.29281I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.24583-1.53378I$ $a=\ \ 0.096647-0.152461I$ $b=-0.841106-0.024861I$	$-1.57240-5.29281I$	0
$u=-0.07347+1.57793I$ $a=-0.0055723+0.0748554I$ $b=\ \ 0.512308-0.529277I$	$-2.50325+0.52259I$	0
$u=-0.07347-1.57793I$ $a=-0.0055723-0.0748554I$ $b=\ \ 0.512308+0.529277I$	$-2.50325-0.52259I$	0
$u=\ \ 0.69484+1.49428I$ $a=\ \ 0.1163650-0.0367404I$ $b=\ \ 0.058594-0.519606I$	$4.39139-3.08591I$	0
$u=\ \ 0.69484-1.49428I$ $a=\ \ 0.1163650+0.0367404I$ $b=\ \ 0.058594+0.519606I$	$4.39139+3.08591I$	0
$u=\ \ 0.078235+0.330652I$ $a=-2.00415-2.43245I$ $b=-0.463036-0.698113I$	$0.58397+4.12730I$	$-3.12752+0.I$
$u=\ \ 0.078235-0.330652I$ $a=-2.00415+2.43245I$ $b=-0.463036+0.698113I$	$0.58397-4.12730I$	$-3.12752+0.I$
$u=-1.07505+1.35317I$ $a=\ \ 0.342857+0.157488I$ $b=-0.451365-0.017632I$	$-3.76179-0.02034I$	0
$u=-1.07505-1.35317I$ $a=\ \ 0.342857-0.157488I$ $b=-0.451365+0.017632I$	$-3.76179+0.02034I$	0
$u=\ \ 0.238884+0.124762I$ $a=\ \ 0.63081-2.67236I$ $b=-0.290491+0.487440I$	$-0.148131+1.207840I$	$-2.19870-5.17018I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.238884 - 0.124762I$ $a = 0.63081 + 2.67236I$ $b = -0.290491 - 0.487440I$	$-0.148131 - 1.207840I$	$-2.19870 + 5.17018I$
$u = 0.166621 + 0.185800I$ $a = 0.95638 + 2.22791I$ $b = 0.616862 + 0.760616I$	$3.45674 - 0.87795I$	$1.86658 + 1.01871I$
$u = 0.166621 - 0.185800I$ $a = 0.95638 - 2.22791I$ $b = 0.616862 - 0.760616I$	$3.45674 + 0.87795I$	$1.86658 - 1.01871I$
$u = 0.96925 + 1.47982I$ $a = -0.093239 + 0.316891I$ $b = 0.372785 - 0.219387I$	$-1.35274 + 7.26986I$	0
$u = 0.96925 - 1.47982I$ $a = -0.093239 - 0.316891I$ $b = 0.372785 + 0.219387I$	$-1.35274 - 7.26986I$	0
$u = 0.172385 + 0.012383I$ $a = -6.09281 + 2.71249I$ $b = 0.090425 + 1.186450I$	$-2.62528 + 8.53698I$	$-7.49126 - 6.37559I$
$u = 0.172385 - 0.012383I$ $a = -6.09281 - 2.71249I$ $b = 0.090425 - 1.186450I$	$-2.62528 - 8.53698I$	$-7.49126 + 6.37559I$
$u = 0.1057590 + 0.0737803I$ $a = 5.55307 - 3.26489I$ $b = -0.261151 + 1.329370I$	$0.99976 - 1.55017I$	$-12.8866 + 6.4508I$
$u = 0.1057590 - 0.0737803I$ $a = 5.55307 + 3.26489I$ $b = -0.261151 - 1.329370I$	$0.99976 + 1.55017I$	$-12.8866 - 6.4508I$

II. $I_2^u = \langle -1.15 \times 10^{39} u^{41} - 3.53 \times 10^{39} u^{40} + \cdots + 2.17 \times 10^{39} b + 3.15 \times 10^{39},\ -1.18 \times 10^{38} u^{41} + 1.55 \times 10^{39} u^{40} + \cdots + 3.69 \times 10^{40} a + 4.04 \times 10^{41},\ u^{42} + 4u^{41} + \cdots + 81u + 17 \rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

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

$$a_{10} = \begin{pmatrix} 0.00321054u^{41} - 0.0419777u^{40} + \cdots - 43.8946u - 10.9624 \\ 0.532436u^{41} + 1.62624u^{40} + \cdots - 6.55696u - 1.45505 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.535647u^{41} + 1.58426u^{40} + \cdots - 50.4515u - 12.4174 \\ 0.532436u^{41} + 1.62624u^{40} + \cdots - 6.55696u - 1.45505 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.720897u^{41} + 3.79303u^{40} + \cdots + 116.849u + 28.6336 \\ 0.434780u^{41} + 1.97591u^{40} + \cdots + 8.41708u - 0.570204 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.440941u^{41} + 1.55946u^{40} + \cdots - 28.2727u - 7.63176 \\ 0.461395u^{41} + 1.48776u^{40} + \cdots - 1.66983u - 0.222298 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1.67765u^{41} + 6.12142u^{40} + \cdots + 107.858u + 13.8181 \\ -0.176665u^{41} - 0.879023u^{40} + \cdots - 40.1965u - 8.08224 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.0267821u^{41} - 1.22935u^{40} + \cdots - 167.678u - 45.0412 \\ -0.228990u^{41} - 0.809988u^{40} + \cdots - 3.01893u + 1.21038 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.0121322u^{41} - 1.14435u^{40} + \cdots - 115.093u - 25.0341 \\ 0.130482u^{41} + 0.00364144u^{40} + \cdots - 22.9016u - 5.43090 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -1.32410u^{41} - 5.01900u^{40} + \cdots - 75.9670u - 13.5258 \\ 0.183475u^{41} + 0.778658u^{40} + \cdots + 34.7395u + 8.44363 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 0.146197u^{41} - 0.324938u^{40} + \cdots - 276.613u - 73.7912$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{42} - 4u^{41} + \cdots - 81u + 17$
c_2	$u^{42} + 11u^{40} + \cdots + 2u + 1$
c_3	$u^{42} + 11u^{40} + \cdots + 11u + 7$
c_4	$u^{42} + 4u^{41} + \cdots + 81u + 17$
c_5	$u^{42} + 17u^{40} + \cdots - 29u + 7$
c_6	$u^{42} + 11u^{40} + \cdots - 2u + 1$
c_7	$u^{42} + 14u^{41} + \cdots + 6u + 1$
c_8	$u^{42} + 5u^{40} + \cdots - 18u + 52$
c_9	$u^{42} - 2u^{41} + \cdots - 2u + 1$
c_{10}	$u^{42} - 14u^{41} + \cdots - 6u + 1$
c_{11}	$u^{42} + 17u^{40} + \cdots + 29u + 7$
c_{12}	$u^{42} + 4u^{41} + \cdots - 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{42} + 32y^{41} + \cdots + 5033y + 289$
c_2, c_6	$y^{42} + 22y^{41} + \cdots + 36y + 1$
c_3	$y^{42} + 22y^{41} + \cdots + 831y + 49$
c_5, c_{11}	$y^{42} + 34y^{41} + \cdots + 1525y + 49$
c_7, c_{10}	$y^{42} + 22y^{41} + \cdots + 34y + 1$
c_8	$y^{42} + 10y^{41} + \cdots + 17252y + 2704$
c_9	$y^{42} + 4y^{41} + \cdots - 4y + 1$
c_{12}	$y^{42} - 6y^{41} + \cdots - 24y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.177507 + 1.038360I$ $a = -0.53302 + 1.71536I$ $b = 0.083694 + 1.176670I$	$-0.95356 - 9.33719I$	$-2.51720 + 7.45962I$
$u = 0.177507 - 1.038360I$ $a = -0.53302 - 1.71536I$ $b = 0.083694 - 1.176670I$	$-0.95356 + 9.33719I$	$-2.51720 - 7.45962I$
$u = 0.415273 + 0.843469I$ $a = 0.622887 - 0.460957I$ $b = 0.525152 - 0.624112I$	$0.94304 - 5.21125I$	$-3.09219 + 7.08610I$
$u = 0.415273 - 0.843469I$ $a = 0.622887 + 0.460957I$ $b = 0.525152 + 0.624112I$	$0.94304 + 5.21125I$	$-3.09219 - 7.08610I$
$u = -0.877495 + 0.325029I$ $a = -1.28210 + 0.79585I$ $b = 0.942760 - 0.345368I$	$-3.77128 + 3.72501I$	$-14.8385 - 7.3153I$
$u = -0.877495 - 0.325029I$ $a = -1.28210 - 0.79585I$ $b = 0.942760 + 0.345368I$	$-3.77128 - 3.72501I$	$-14.8385 + 7.3153I$
$u = -0.455701 + 0.974672I$ $a = -0.641482 - 0.358792I$ $b = 0.095292 - 1.155930I$	$0.08759 + 2.04022I$	$-4.88431 - 2.95356I$
$u = -0.455701 - 0.974672I$ $a = -0.641482 + 0.358792I$ $b = 0.095292 + 1.155930I$	$0.08759 - 2.04022I$	$-4.88431 + 2.95356I$
$u = 0.897026 + 0.019644I$ $a = 0.994690 - 0.227604I$ $b = -0.653506 + 0.593956I$	$2.00876 + 2.22004I$	$-1.28204 - 1.88845I$
$u = 0.897026 - 0.019644I$ $a = 0.994690 + 0.227604I$ $b = -0.653506 - 0.593956I$	$2.00876 - 2.22004I$	$-1.28204 + 1.88845I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.192699 + 1.112400I$ $a = 0.722423 + 0.030492I$ $b = -1.72294 - 0.16805I$	$4.91016 - 1.83612I$	$5.58844 + 4.38656I$
$u = 0.192699 - 1.112400I$ $a = 0.722423 - 0.030492I$ $b = -1.72294 + 0.16805I$	$4.91016 + 1.83612I$	$5.58844 - 4.38656I$
$u = 0.000907 + 1.157010I$ $a = -0.202101 - 1.150900I$ $b = 0.39397 - 1.70704I$	$3.65086 - 1.55590I$	$-4.60753 + 5.05925I$
$u = 0.000907 - 1.157010I$ $a = -0.202101 + 1.150900I$ $b = 0.39397 + 1.70704I$	$3.65086 + 1.55590I$	$-4.60753 - 5.05925I$
$u = -0.276679 + 1.156370I$ $a = 1.005910 + 0.755285I$ $b = -1.19122 + 1.32546I$	$-5.01608 + 5.53547I$	0
$u = -0.276679 - 1.156370I$ $a = 1.005910 - 0.755285I$ $b = -1.19122 - 1.32546I$	$-5.01608 - 5.53547I$	0
$u = 0.055611 + 1.192060I$ $a = 0.019376 + 0.254234I$ $b = -0.65828 + 1.83295I$	$5.88067 - 0.30931I$	$4.94345 + 3.26765I$
$u = 0.055611 - 1.192060I$ $a = 0.019376 - 0.254234I$ $b = -0.65828 - 1.83295I$	$5.88067 + 0.30931I$	$4.94345 - 3.26765I$
$u = -0.298591 + 0.732730I$ $a = 2.77350 + 0.84337I$ $b = -0.762797 + 0.459269I$	$-5.89545 + 3.57429I$	$-11.92200 - 7.20922I$
$u = -0.298591 - 0.732730I$ $a = 2.77350 - 0.84337I$ $b = -0.762797 - 0.459269I$	$-5.89545 - 3.57429I$	$-11.92200 + 7.20922I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.091394+1.230230I$ $a=-0.877968-0.325600I$ $b=\ \ 1.43775-0.29240I$	$3.88386+4.33701I$	$0.-4.25214I$
$u=-0.091394-1.230230I$ $a=-0.877968+0.325600I$ $b=\ \ 1.43775+0.29240I$	$3.88386-4.33701I$	$0.+4.25214I$
$u=-0.952541+0.820825I$ $a=-0.866623-0.338357I$ $b=\ \ 0.539863-0.023823I$	$-2.63199+2.64152I$	$0.-11.34211I$
$u=-0.952541-0.820825I$ $a=-0.866623+0.338357I$ $b=\ \ 0.539863+0.023823I$	$-2.63199-2.64152I$	$0.+11.34211I$
$u=\ \ 0.634034+1.118800I$ $a=-0.282550+0.453543I$ $b=\ \ 0.021041-0.378934I$	$-1.09907+6.94051I$	0
$u=\ \ 0.634034-1.118800I$ $a=-0.282550-0.453543I$ $b=\ \ 0.021041+0.378934I$	$-1.09907-6.94051I$	0
$u=-0.419292+0.477419I$ $a=-2.54201+1.21412I$ $b=\ \ 0.898914-0.190619I$	$-3.86598+3.59042I$	$-11.71501-4.15721I$
$u=-0.419292-0.477419I$ $a=-2.54201-1.21412I$ $b=\ \ 0.898914+0.190619I$	$-3.86598-3.59042I$	$-11.71501+4.15721I$
$u=-0.531644+0.339676I$ $a=\ \ 0.51338+1.61819I$ $b=-1.050620-0.697940I$	$-7.57639-2.39812I$	$-2.01915+5.58226I$
$u=-0.531644-0.339676I$ $a=\ \ 0.51338-1.61819I$ $b=-1.050620+0.697940I$	$-7.57639+2.39812I$	$-2.01915-5.58226I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.485808 + 1.317800I$ $a = 1.082370 - 0.607471I$ $b = -0.874758 - 0.894649I$	$6.03124 - 7.26421I$	0
$u = 0.485808 - 1.317800I$ $a = 1.082370 + 0.607471I$ $b = -0.874758 + 0.894649I$	$6.03124 + 7.26421I$	0
$u = -0.64017 + 1.32694I$ $a = 0.379230 - 0.116595I$ $b = -0.334455 + 0.899017I$	$1.24930 + 3.20001I$	0
$u = -0.64017 - 1.32694I$ $a = 0.379230 + 0.116595I$ $b = -0.334455 - 0.899017I$	$1.24930 - 3.20001I$	0
$u = -0.45557 + 1.40673I$ $a = -0.936812 - 0.252613I$ $b = 1.35678 - 0.95016I$	$1.41752 + 8.70993I$	0
$u = -0.45557 - 1.40673I$ $a = -0.936812 + 0.252613I$ $b = 1.35678 + 0.95016I$	$1.41752 - 8.70993I$	0
$u = 0.169557 + 0.453872I$ $a = 0.576472 - 1.255610I$ $b = 0.201562 + 0.961033I$	$1.48316 + 1.29777I$	$1.313603 + 0.490451I$
$u = 0.169557 - 0.453872I$ $a = 0.576472 + 1.255610I$ $b = 0.201562 - 0.961033I$	$1.48316 - 1.29777I$	$1.313603 - 0.490451I$
$u = -0.82853 + 1.32612I$ $a = 0.434282 + 0.294845I$ $b = -0.309225 - 0.051261I$	$-3.54732 + 0.07871I$	0
$u = -0.82853 - 1.32612I$ $a = 0.434282 - 0.294845I$ $b = -0.309225 + 0.051261I$	$-3.54732 - 0.07871I$	0

	Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.79918+1.49522I$		
$a=$	$-0.253977+0.006076I$	$4.45589-3.26144I$	0
$b=$	$0.061027+0.501617I$		
$u=$	$0.79918-1.49522I$		
$a=$	$-0.253977-0.006076I$	$4.45589+3.26144I$	0
$b=$	$0.061027-0.501617I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{42}-4u^{41}+\cdots-81u+17)(u^{159}-5u^{158}+\cdots-1836u+41)$
c_2	$(u^{42}+11u^{40}+\cdots+2u+1)(u^{159}+5u^{158}+\cdots+1580u+304)$
c_3	$(u^{42}+11u^{40}+\cdots+11u+7)(u^{159}+u^{158}+\cdots+107562u+9857)$
c_4	$(u^{42}+4u^{41}+\cdots+81u+17)(u^{159}-5u^{158}+\cdots-1836u+41)$
c_5	$(u^{42}+17u^{40}+\cdots-29u+7)$ $\cdot(u^{159}-u^{158}+\cdots+76831096u+4906757)$
c_6	$(u^{42}+11u^{40}+\cdots-2u+1)(u^{159}+5u^{158}+\cdots+1580u+304)$
c_7	$(u^{42}+14u^{41}+\cdots+6u+1)(u^{159}-13u^{158}+\cdots+677715u+119125)$
c_8	$(u^{42}+5u^{40}+\cdots-18u+52)$ $\cdot(u^{159}-u^{158}+\cdots+186934042u+51574948)$
c_9	$(u^{42}-2u^{41}+\cdots-2u+1)(u^{159}-3u^{158}+\cdots-52u+4)$
c_{10}	$(u^{42}-14u^{41}+\cdots-6u+1)(u^{159}-13u^{158}+\cdots+677715u+119125)$
c_{11}	$(u^{42}+17u^{40}+\cdots+29u+7)$ $\cdot(u^{159}-u^{158}+\cdots+76831096u+4906757)$
c_{12}	$(u^{42}+4u^{41}+\cdots-2u+1)(u^{159}-11u^{158}+\cdots+267u-7)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$(y^{42} + 32y^{41} + \cdots + 5033y + 289)$ $\cdot (y^{159} + 115y^{158} + \cdots + 133618y - 1681)$
c_2, c_6	$(y^{42} + 22y^{41} + \cdots + 36y + 1)$ $\cdot (y^{159} + 77y^{158} + \cdots - 4109520y - 92416)$
c_3	$(y^{42} + 22y^{41} + \cdots + 831y + 49)$ $\cdot (y^{159} + 29y^{158} + \cdots - 3124719192y - 97160449)$
c_5, c_{11}	$(y^{42} + 34y^{41} + \cdots + 1525y + 49)$ $\cdot (y^{159} + 121y^{158} + \cdots - 799516959728630y - 24076264257049)$
c_7, c_{10}	$(y^{42} + 22y^{41} + \cdots + 34y + 1)$ $\cdot (y^{159} + 89y^{158} + \cdots - 542898621275y - 14190765625)$
c_8	$(y^{42} + 10y^{41} + \cdots + 17252y + 2704)$ $\cdot (y^{159} + 37y^{158} + \cdots - 77763978165498852y - 2659975261202704)$
c_9	$(y^{42} + 4y^{41} + \cdots - 4y + 1)(y^{159} - y^{158} + \cdots + 232y - 16)$
c_{12}	$(y^{42} - 6y^{41} + \cdots - 24y + 1)(y^{159} - 3y^{158} + \cdots - 1021y - 49)$