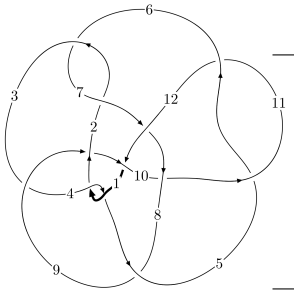
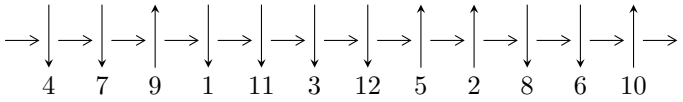
$12a_{1067}$ $(K12a_{1067})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 9.69637 \times 10^{972} u^{183} + 3.83011 \times 10^{973} u^{182} + \cdots + 4.79435 \times 10^{972} b + 4.98318 \times 10^{972}, \\ & 3.00989 \times 10^{973} u^{183} + 1.06238 \times 10^{974} u^{182} + \cdots + 9.58869 \times 10^{972} a - 1.13665 \times 10^{973}, \\ & 4u^{184} + 18u^{183} + \cdots - u - 1 \rangle \\ I_2^u = \langle & -6.34794 \times 10^{39} u^{46} + 2.02979 \times 10^{39} u^{45} + \cdots + 3.62356 \times 10^{36} b + 1.98963 \times 10^{38}, \\ & - 1.15338 \times 10^{40} u^{46} + 4.70729 \times 10^{39} u^{45} + \cdots + 3.62356 \times 10^{36} a + 5.74621 \times 10^{38}, \\ & 4u^{47} - 2u^{46} + \cdots + 2u - 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 231 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. $\boldsymbol{I_1^u = \langle 9.70 \times 10^{972} u^{183} + 3.83 \times 10^{973} u^{182} + \cdots + 4.79 \times 10^{972} b + 4.98 \times 10^{972},\ 3.01 \times 10^{973} u^{183} + 1.06 \times 10^{974} u^{182} + \cdots + 9.59 \times 10^{972} a - 1.14 \times 10^{973},\ 4u^{184} + 18u^{183} + \cdots - u - 1 \rangle}$

(i) Arc colorings

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

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -3.13900u^{183} - 11.0795u^{182} + \cdots + 11.4796u + 1.18541 \\ -2.02246u^{183} - 7.98881u^{182} + \cdots - 0.164649u - 1.03939 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -28.3246u^{183} - 115.902u^{182} + \cdots + 0.103156u + 0.195379 \\ -0.838225u^{183} - 5.38534u^{182} + \cdots + 3.61413u + 1.85430 \end{pmatrix}$$

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

$$a_{11} = \begin{pmatrix} -5.16146u^{183} - 19.0683u^{182} + \cdots + 11.3150u + 0.146023 \\ -2.02246u^{183} - 7.98881u^{182} + \cdots - 0.164649u - 1.03939 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -2.41286u^{183} - 6.67240u^{182} + \cdots + 7.65328u - 0.944619 \\ -2.97911u^{183} - 12.4678u^{182} + \cdots - 2.66075u - 1.04249 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.694380u^{183} + 4.32372u^{182} + \cdots + 26.7412u - 1.97568 \\ 0.884339u^{183} + 4.27172u^{182} + \cdots + 18.5921u - 2.57270 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.512475u^{183} + 4.12866u^{182} + \cdots + 26.7047u - 2.23706 \\ 0.533045u^{183} + 3.06739u^{182} + \cdots + 18.6661u - 2.67821 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -7.17736u^{183} - 33.1930u^{182} + \cdots + 11.1989u + 15.7224 \\ -6.39788u^{183} - 28.7785u^{182} + \cdots + 10.4754u + 5.75485 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 11.8637u^{183} + 48.5407u^{182} + \cdots - 47.3080u + 4.31958 \\ 5.27352u^{183} + 21.4561u^{182} + \cdots - 25.8612u + 1.42500 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4.22703u^{183} + 16.2157u^{182} + \cdots - 63.6205u - 1.32587$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{184} - 6u^{183} + \cdots - 249u + 23$
c_2, c_6	$4(4u^{184} + 18u^{183} + \cdots - u - 1)$
c_3	$4(4u^{184} + 10u^{183} + \cdots + 6499876u - 332573)$
c_5, c_{11}	$u^{184} - 5u^{183} + \cdots - 626819u - 61241$
c_7	$u^{184} + 3u^{183} + \cdots - 584840944u + 146659264$
c_8	$u^{184} - 7u^{183} + \cdots - 15606197942u - 994895348$
c_9	$4(4u^{184} - 6u^{183} + \cdots + 64953u + 127)$
c_{10}	$16(16u^{184} + 372u^{183} + \cdots + 2.52928 \times 10^7 u + 2248063)$
c_{12}	$u^{184} + 15u^{183} + \cdots + 3307328u + 94624$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{184} + 112y^{183} + \cdots + 67259y + 529$
c_2, c_6	$16(16y^{184} + 1444y^{183} + \cdots + 75y + 1)$
c_3	$16(16y^{184} + 164y^{183} + \cdots - 4.68138 \times 10^{12}y + 1.10605 \times 10^{11})$
c_5, c_{11}	$y^{184} - 121y^{183} + \cdots + 83127663735y + 3750460081$
c_7	$y^{184} - 59y^{183} + \cdots - 2085041048441058048y + 215089397170216 96$
c_8	$y^{184} + 67y^{183} + \cdots + 1.72 \times 10^{19}y + 9.90 \times 10^{17}$
c_9	$16(16y^{184} - 60y^{183} + \cdots - 4.55483 \times 10^{9}y + 16129)$
c_{10}	$256 \cdot (256y^{184} - 9328y^{183} + \cdots - 317358447741910y + 5053787251969)$
c_{12}	$y^{184} + 5y^{183} + \cdots + 1539978428928y + 8953701376$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.408140+0.919874I$ $a=\ \ 0.468378+0.427870I$ $b=\ \ 1.51005+0.08124I$	$-1.37864-2.50987I$	0
$u=-0.408140-0.919874I$ $a=\ \ 0.468378-0.427870I$ $b=\ \ 1.51005-0.08124I$	$-1.37864+2.50987I$	0
$u=\ \ 0.347511+0.928057I$ $a=-0.24952+1.41068I$ $b=\ \ 0.187116-0.192914I$	$0.71096-4.45447I$	0
$u=\ \ 0.347511-0.928057I$ $a=-0.24952-1.41068I$ $b=\ \ 0.187116+0.192914I$	$0.71096+4.45447I$	0
$u=\ \ 0.414485+0.922428I$ $a=-0.74768+1.57493I$ $b=\ \ 0.325405-1.011900I$	$0.81162-5.05777I$	0
$u=\ \ 0.414485-0.922428I$ $a=-0.74768-1.57493I$ $b=\ \ 0.325405+1.011900I$	$0.81162+5.05777I$	0
$u=\ \ 0.936267+0.290628I$ $a=\ \ 0.723436-0.270809I$ $b=-0.018333+0.974541I$	$0.70461+9.22244I$	0
$u=\ \ 0.936267-0.290628I$ $a=\ \ 0.723436+0.270809I$ $b=-0.018333-0.974541I$	$0.70461-9.22244I$	0
$u=-0.389627+0.897196I$ $a=-0.82128-1.61223I$ $b=\ \ 0.172816+1.211310I$	$0.39458+1.97082I$	0
$u=-0.389627-0.897196I$ $a=-0.82128+1.61223I$ $b=\ \ 0.172816-1.211310I$	$0.39458-1.97082I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.386856 + 0.946622I$ $a = -0.55309 + 1.52788I$ $b = 0.223782 - 0.579332I$	$0.71363 - 4.10768I$	0
$u = 0.386856 - 0.946622I$ $a = -0.55309 - 1.52788I$ $b = 0.223782 + 0.579332I$	$0.71363 + 4.10768I$	0
$u = -0.598540 + 0.840118I$ $a = -1.00327 - 1.66735I$ $b = -0.835767 + 0.193058I$	$2.88033 + 5.29178I$	0
$u = -0.598540 - 0.840118I$ $a = -1.00327 + 1.66735I$ $b = -0.835767 - 0.193058I$	$2.88033 - 5.29178I$	0
$u = 0.387149 + 0.886872I$ $a = -1.65326 + 1.80661I$ $b = 0.15896 - 2.04360I$	$6.92848 - 1.61446I$	0
$u = 0.387149 - 0.886872I$ $a = -1.65326 - 1.80661I$ $b = 0.15896 + 2.04360I$	$6.92848 + 1.61446I$	0
$u = -0.397961 + 0.970113I$ $a = -0.52923 - 1.79836I$ $b = -0.403072 + 0.707760I$	$3.06213 + 5.71906I$	0
$u = -0.397961 - 0.970113I$ $a = -0.52923 + 1.79836I$ $b = -0.403072 - 0.707760I$	$3.06213 - 5.71906I$	0
$u = -0.362407 + 0.869445I$ $a = -0.75689 - 1.30416I$ $b = 0.336318 + 1.211430I$	$0.250731 + 1.210620I$	0
$u = -0.362407 - 0.869445I$ $a = -0.75689 + 1.30416I$ $b = 0.336318 - 1.211430I$	$0.250731 - 1.210620I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.430135+0.978941I$ $a=-0.70095-1.39377I$ $b=\ \ 0.688817+0.707721I$	$4.26154+6.12115I$	0
$u=-0.430135-0.978941I$ $a=-0.70095+1.39377I$ $b=\ \ 0.688817-0.707721I$	$4.26154-6.12115I$	0
$u=\ \ 0.923728+0.035921I$ $a=\ \ 0.784119+0.058833I$ $b=-0.065795-0.428784I$	$0.08718+4.16864I$	0
$u=\ \ 0.923728-0.035921I$ $a=\ \ 0.784119-0.058833I$ $b=-0.065795+0.428784I$	$0.08718-4.16864I$	0
$u=\ \ 0.281847+1.038920I$ $a=\ \ 0.950210-0.904620I$ $b=-0.526128+0.721953I$	$3.42270-0.97311I$	0
$u=\ \ 0.281847-1.038920I$ $a=\ \ 0.950210+0.904620I$ $b=-0.526128-0.721953I$	$3.42270+0.97311I$	0
$u=-0.314115+1.036040I$ $a=-0.900858-0.166185I$ $b=\ \ 1.080560+0.729888I$	$2.58839-3.79400I$	0
$u=-0.314115-1.036040I$ $a=-0.900858+0.166185I$ $b=\ \ 1.080560-0.729888I$	$2.58839+3.79400I$	0
$u=-0.169340+1.072090I$ $a=-0.522139-0.399251I$ $b=\ \ 0.643915-0.083937I$	$-0.103146+1.087630I$	0
$u=-0.169340-1.072090I$ $a=-0.522139+0.399251I$ $b=\ \ 0.643915+0.083937I$	$-0.103146-1.087630I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.026900 + 0.396959I$ $a = -0.946965 - 0.259094I$ $b = -1.052410 - 0.095352I$	$-4.26445 - 3.56478I$	0
$u = 1.026900 - 0.396959I$ $a = -0.946965 + 0.259094I$ $b = -1.052410 + 0.095352I$	$-4.26445 + 3.56478I$	0
$u = -0.505306 + 0.978686I$ $a = -0.505234 + 0.189205I$ $b = 1.68157 + 0.48204I$	$-1.95917 + 7.82733I$	0
$u = -0.505306 - 0.978686I$ $a = -0.505234 - 0.189205I$ $b = 1.68157 - 0.48204I$	$-1.95917 - 7.82733I$	0
$u = 0.528603 + 0.971751I$ $a = -0.267204 - 0.043964I$ $b = 1.57732 - 0.43029I$	$-5.82786 - 2.25349I$	0
$u = 0.528603 - 0.971751I$ $a = -0.267204 + 0.043964I$ $b = 1.57732 + 0.43029I$	$-5.82786 + 2.25349I$	0
$u = -0.371982 + 1.043230I$ $a = 1.00034 + 1.02546I$ $b = -0.420802 - 0.873508I$	$3.44755 + 0.37029I$	0
$u = -0.371982 - 1.043230I$ $a = 1.00034 - 1.02546I$ $b = -0.420802 + 0.873508I$	$3.44755 - 0.37029I$	0
$u = -0.969711 + 0.536288I$ $a = 0.076731 - 0.456367I$ $b = -1.082330 - 0.371542I$	$-4.27619 + 1.85568I$	0
$u = -0.969711 - 0.536288I$ $a = 0.076731 + 0.456367I$ $b = -1.082330 + 0.371542I$	$-4.27619 - 1.85568I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.061950+0.322851I$ $a=\ \ 0.676768+0.257664I$ $b=\ \ 0.058107-0.961838I$	$-3.14855-2.88375I$	0
$u=-1.061950-0.322851I$ $a=\ \ 0.676768-0.257664I$ $b=\ \ 0.058107+0.961838I$	$-3.14855+2.88375I$	0
$u=-0.450313+1.028690I$ $a=\ \ 1.75389+0.84402I$ $b=\ \ 1.241200-0.130319I$	$-0.17468+10.02130I$	0
$u=-0.450313-1.028690I$ $a=\ \ 1.75389-0.84402I$ $b=\ \ 1.241200+0.130319I$	$-0.17468-10.02130I$	0
$u=\ \ 0.419405+1.048920I$ $a=\ \ 1.55024-0.23042I$ $b=\ \ 1.300290+0.017985I$	$-4.53117-3.67527I$	0
$u=\ \ 0.419405-1.048920I$ $a=\ \ 1.55024+0.23042I$ $b=\ \ 1.300290-0.017985I$	$-4.53117+3.67527I$	0
$u=-0.561516+0.982387I$ $a=\ \ 1.09147+0.98522I$ $b=\ \ 1.032500-0.173802I$	$3.47444-0.63871I$	0
$u=-0.561516-0.982387I$ $a=\ \ 1.09147-0.98522I$ $b=\ \ 1.032500+0.173802I$	$3.47444+0.63871I$	0
$u=\ \ 0.333214+0.786452I$ $a=-0.186114+1.268040I$ $b=\ \ 0.153328-0.956820I$	$0.28532+1.75546I$	0
$u=\ \ 0.333214-0.786452I$ $a=-0.186114-1.268040I$ $b=\ \ 0.153328+0.956820I$	$0.28532-1.75546I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.889487+0.746374I$ $a=\ \ 0.293423-0.103625I$ $b=\ \ 1.35003+0.43451I$	$-0.40458-2.51278I$	0
$u=-0.889487-0.746374I$ $a=\ \ 0.293423+0.103625I$ $b=\ \ 1.35003-0.43451I$	$-0.40458+2.51278I$	0
$u=\ \ 0.647529+0.968786I$ $a=\ \ 0.912059-1.075660I$ $b=\ \ 0.326805+1.263330I$	$5.12494-2.86592I$	0
$u=\ \ 0.647529-0.968786I$ $a=\ \ 0.912059+1.075660I$ $b=\ \ 0.326805-1.263330I$	$5.12494+2.86592I$	0
$u=\ \ 0.521786+0.651265I$ $a=-0.08453+2.96521I$ $b=-1.261640-0.574391I$	$-6.84437-2.04453I$	0
$u=\ \ 0.521786-0.651265I$ $a=-0.08453-2.96521I$ $b=-1.261640+0.574391I$	$-6.84437+2.04453I$	0
$u=-0.488376+0.666176I$ $a=-0.04949-2.88367I$ $b=-1.35023+0.61079I$	$-2.97063-3.72020I$	0
$u=-0.488376-0.666176I$ $a=-0.04949+2.88367I$ $b=-1.35023-0.61079I$	$-2.97063+3.72020I$	0
$u=\ \ 0.153872+1.164880I$ $a=-0.23785+1.46858I$ $b=-0.509986-0.890790I$	$8.65940-4.16811I$	0
$u=\ \ 0.153872-1.164880I$ $a=-0.23785-1.46858I$ $b=-0.509986+0.890790I$	$8.65940+4.16811I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.577567 + 0.582303I$ $a = 0.715962 + 0.008979I$ $b = 0.765651 - 0.083496I$	$-0.042971 + 1.173170I$	0
$u = 0.577567 - 0.582303I$ $a = 0.715962 - 0.008979I$ $b = 0.765651 + 0.083496I$	$-0.042971 - 1.173170I$	0
$u = -0.534355 + 1.053900I$ $a = 0.03926 + 1.88650I$ $b = 1.59638 - 0.62647I$	$1.18807 + 10.41070I$	0
$u = -0.534355 - 1.053900I$ $a = 0.03926 - 1.88650I$ $b = 1.59638 + 0.62647I$	$1.18807 - 10.41070I$	0
$u = 0.060532 + 0.812643I$ $a = 0.040796 + 0.208195I$ $b = 0.410695 - 0.434856I$	$-0.214445 + 1.140940I$	0
$u = 0.060532 - 0.812643I$ $a = 0.040796 - 0.208195I$ $b = 0.410695 + 0.434856I$	$-0.214445 - 1.140940I$	0
$u = -0.536394 + 0.594861I$ $a = 0.00338 - 3.29524I$ $b = -1.123240 + 0.533124I$	$-2.22105 + 7.91268I$	0
$u = -0.536394 - 0.594861I$ $a = 0.00338 + 3.29524I$ $b = -1.123240 - 0.533124I$	$-2.22105 - 7.91268I$	0
$u = 0.552591 + 1.066900I$ $a = -0.32386 + 1.72792I$ $b = -0.998874 - 0.566217I$	$1.68114 - 5.76963I$	0
$u = 0.552591 - 1.066900I$ $a = -0.32386 - 1.72792I$ $b = -0.998874 + 0.566217I$	$1.68114 + 5.76963I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.522020+1.097030I$ $a=\ \ 0.225988-0.639916I$ $b=\ \ 1.344370+0.357098I$	$-0.64833-3.45209I$	0
$u=-0.522020-1.097030I$ $a=\ \ 0.225988+0.639916I$ $b=\ \ 1.344370-0.357098I$	$-0.64833+3.45209I$	0
$u=\ \ 0.020334+1.217110I$ $a=\ \ 0.042520-1.264440I$ $b=-0.479190+0.852671I$	$3.97797+0.31674I$	0
$u=\ \ 0.020334-1.217110I$ $a=\ \ 0.042520+1.264440I$ $b=-0.479190-0.852671I$	$3.97797-0.31674I$	0
$u=\ \ 0.515416+1.105500I$ $a=-0.20876-1.98005I$ $b=\ \ 1.44543+0.41988I$	$-2.63137-10.17830I$	0
$u=\ \ 0.515416-1.105500I$ $a=-0.20876+1.98005I$ $b=\ \ 1.44543-0.41988I$	$-2.63137+10.17830I$	0
$u=\ \ 0.693865+0.355004I$ $a=-0.099338+0.657177I$ $b=-1.346610+0.340925I$	$-5.33037+3.15613I$	0
$u=\ \ 0.693865-0.355004I$ $a=-0.099338-0.657177I$ $b=-1.346610-0.340925I$	$-5.33037-3.15613I$	0
$u=-0.772919+0.052430I$ $a=-0.108573+0.966984I$ $b=-1.163540-0.014722I$	$-4.79486-2.29114I$	0
$u=-0.772919-0.052430I$ $a=-0.108573-0.966984I$ $b=-1.163540+0.014722I$	$-4.79486+2.29114I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.771801$ $a=\ \ 0.423635$ $b=\ \ 1.07107$	-1.99970	0
$u=-0.307162+0.705941I$ $a=\ \ 0.45963-3.96015I$ $b=-1.145940+0.002258I$	$-2.21552+5.60764I$	0
$u=-0.307162-0.705941I$ $a=\ \ 0.45963+3.96015I$ $b=-1.145940-0.002258I$	$-2.21552-5.60764I$	0
$u=\ \ 0.577336+1.089180I$ $a=-0.09363-1.65289I$ $b=\ \ 1.39026+0.64879I$	$-3.26945-8.07249I$	0
$u=\ \ 0.577336-1.089180I$ $a=-0.09363+1.65289I$ $b=\ \ 1.39026-0.64879I$	$-3.26945+8.07249I$	0
$u=-0.518702+1.125780I$ $a=-0.30848+1.96122I$ $b=\ \ 1.313880-0.361486I$	$-3.08701+7.58046I$	0
$u=-0.518702-1.125780I$ $a=-0.30848-1.96122I$ $b=\ \ 1.313880+0.361486I$	$-3.08701-7.58046I$	0
$u=\ \ 0.600204+0.462166I$ $a=\ \ 0.704058-0.299784I$ $b=-0.017161+0.842752I$	$3.92038-2.08087I$	0
$u=\ \ 0.600204-0.462166I$ $a=\ \ 0.704058+0.299784I$ $b=-0.017161-0.842752I$	$3.92038+2.08087I$	0
$u=-0.519709+1.129250I$ $a=-0.21011+2.14366I$ $b=\ \ 1.122380-0.230137I$	$-2.00029+6.84902I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.519709-1.129250I$ $a=-0.21011-2.14366I$ $b=\ \ 1.122380+0.230137I$	$-2.00029-6.84902I$	0
$u=\ \ 0.559103+1.113140I$ $a=-0.24226-1.73965I$ $b=\ \ 1.36388+0.59858I$	$-3.48464-8.34419I$	0
$u=\ \ 0.559103-1.113140I$ $a=-0.24226+1.73965I$ $b=\ \ 1.36388-0.59858I$	$-3.48464+8.34419I$	0
$u=-0.635262+1.072810I$ $a=\ \ 0.077167+1.362710I$ $b=\ \ 1.226940-0.684267I$	$-2.50228+3.82580I$	0
$u=-0.635262-1.072810I$ $a=\ \ 0.077167-1.362710I$ $b=\ \ 1.226940+0.684267I$	$-2.50228-3.82580I$	0
$u=-0.185835+0.726682I$ $a=\ \ 0.522911-0.262001I$ $b=\ \ 0.318248-0.193976I$	$-0.337093+1.232480I$	0
$u=-0.185835-0.726682I$ $a=\ \ 0.522911+0.262001I$ $b=\ \ 0.318248+0.193976I$	$-0.337093-1.232480I$	0
$u=\ \ 0.569710+1.115840I$ $a=\ \ 0.27196-1.57152I$ $b=\ \ 1.107530+0.107823I$	$-1.79491-1.84005I$	0
$u=\ \ 0.569710-1.115840I$ $a=\ \ 0.27196+1.57152I$ $b=\ \ 1.107530-0.107823I$	$-1.79491+1.84005I$	0
$u=\ \ 0.428449+1.177750I$ $a=\ \ 0.196441-0.857966I$ $b=-0.203444+0.739709I$	$4.06604-0.46284I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.428449 - 1.177750I$ $a = 0.196441 + 0.857966I$ $b = -0.203444 - 0.739709I$	$4.06604 + 0.46284I$	0
$u = -1.161890 + 0.479075I$ $a = 0.274572 - 0.128431I$ $b = 1.32887 + 0.49405I$	$-3.4698 - 14.4842I$	0
$u = -1.161890 - 0.479075I$ $a = 0.274572 + 0.128431I$ $b = 1.32887 - 0.49405I$	$-3.4698 + 14.4842I$	0
$u = -0.548359 + 1.134530I$ $a = -0.36004 + 1.79531I$ $b = 1.264400 - 0.603997I$	$-2.20617 + 10.96480I$	0
$u = -0.548359 - 1.134530I$ $a = -0.36004 - 1.79531I$ $b = 1.264400 + 0.603997I$	$-2.20617 - 10.96480I$	0
$u = 0.510385 + 1.152500I$ $a = -0.73047 - 1.91157I$ $b = 0.927987 + 0.389521I$	$3.54053 - 10.46870I$	0
$u = 0.510385 - 1.152500I$ $a = -0.73047 + 1.91157I$ $b = 0.927987 - 0.389521I$	$3.54053 + 10.46870I$	0
$u = -0.357385 + 0.646714I$ $a = -1.20802 - 4.53575I$ $b = -1.011780 - 0.087627I$	$-1.55096 - 6.48269I$	0
$u = -0.357385 - 0.646714I$ $a = -1.20802 + 4.53575I$ $b = -1.011780 + 0.087627I$	$-1.55096 + 6.48269I$	0
$u = -0.352965 + 0.641905I$ $a = 0.79815 - 1.56934I$ $b = -0.278304 + 0.634077I$	$3.18879 - 2.67043I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.352965-0.641905I$ $a=\ \ 0.79815+1.56934I$ $b=-0.278304-0.634077I$	$3.18879+2.67043I$	0
$u=\ \ 0.354043+1.220320I$ $a=-1.206940-0.002967I$ $b=\ \ 0.765084-0.079501I$	$4.57035+1.96985I$	0
$u=\ \ 0.354043-1.220320I$ $a=-1.206940+0.002967I$ $b=\ \ 0.765084+0.079501I$	$4.57035-1.96985I$	0
$u=\ \ 0.316393+0.656926I$ $a=-0.27030+4.83720I$ $b=-1.066430+0.053610I$	$-5.97520+0.42420I$	0
$u=\ \ 0.316393-0.656926I$ $a=-0.27030-4.83720I$ $b=-1.066430-0.053610I$	$-5.97520-0.42420I$	0
$u=\ \ 0.713146+0.083758I$ $a=\ \ 0.666552-0.621189I$ $b=-1.048110+0.219216I$	$0.64514+5.93799I$	0
$u=\ \ 0.713146-0.083758I$ $a=\ \ 0.666552+0.621189I$ $b=-1.048110-0.219216I$	$0.64514-5.93799I$	0
$u=-0.522451+0.476399I$ $a=-0.394161-1.183480I$ $b=-1.48382-0.38144I$	$-0.53930-6.01033I$	0
$u=-0.522451-0.476399I$ $a=-0.394161+1.183480I$ $b=-1.48382+0.38144I$	$-0.53930+6.01033I$	0
$u=\ \ 0.736475+1.070560I$ $a=\ \ 0.755911-0.876200I$ $b=-0.004955+1.302750I$	$5.11051-3.02317I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.736475 - 1.070560I$ $a = 0.755911 + 0.876200I$ $b = -0.004955 - 1.302750I$	$5.11051 + 3.02317I$	0
$u = -0.603908 + 1.171210I$ $a = -0.065800 + 0.363356I$ $b = -0.238003 - 0.343787I$	$0.24643 + 4.33772I$	0
$u = -0.603908 - 1.171210I$ $a = -0.065800 - 0.363356I$ $b = -0.238003 + 0.343787I$	$0.24643 - 4.33772I$	0
$u = 0.078058 + 1.316370I$ $a = 0.721517 + 0.895300I$ $b = -0.980309 - 0.510799I$	$7.13507 - 0.88195I$	0
$u = 0.078058 - 1.316370I$ $a = 0.721517 - 0.895300I$ $b = -0.980309 + 0.510799I$	$7.13507 + 0.88195I$	0
$u = -0.656173 + 0.166650I$ $a = 0.1277680 - 0.0361927I$ $b = -1.334210 - 0.335415I$	$-4.79501 - 6.26372I$	0
$u = -0.656173 - 0.166650I$ $a = 0.1277680 + 0.0361927I$ $b = -1.334210 + 0.335415I$	$-4.79501 + 6.26372I$	0
$u = 1.203910 + 0.552267I$ $a = 0.283368 + 0.117376I$ $b = 1.315700 - 0.498609I$	$-7.11160 + 8.16404I$	0
$u = 1.203910 - 0.552267I$ $a = 0.283368 - 0.117376I$ $b = 1.315700 + 0.498609I$	$-7.11160 - 8.16404I$	0
$u = 0.630598 + 0.232076I$ $a = -0.108921 + 0.326295I$ $b = -1.38547 + 0.31094I$	$-5.85620 + 3.61150I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.630598 - 0.232076I$ $a = -0.108921 - 0.326295I$ $b = -1.38547 - 0.31094I$	$-5.85620 - 3.61150I$	0
$u = 0.609080 + 1.180350I$ $a = 0.596108 - 1.164780I$ $b = -0.007521 + 1.266590I$	$3.3819 - 14.7949I$	0
$u = 0.609080 - 1.180350I$ $a = 0.596108 + 1.164780I$ $b = -0.007521 - 1.266590I$	$3.3819 + 14.7949I$	0
$u = -0.582239 + 1.202530I$ $a = -0.036465 - 1.328170I$ $b = -1.108770 + 0.443250I$	$1.48656 + 4.84405I$	0
$u = -0.582239 - 1.202530I$ $a = -0.036465 + 1.328170I$ $b = -1.108770 - 0.443250I$	$1.48656 - 4.84405I$	0
$u = -0.635307 + 1.192930I$ $a = 0.562680 + 1.089200I$ $b = -0.016952 - 1.250260I$	$-0.44158 + 8.82121I$	0
$u = -0.635307 - 1.192930I$ $a = 0.562680 - 1.089200I$ $b = -0.016952 + 1.250260I$	$-0.44158 - 8.82121I$	0
$u = 0.553170 + 1.236710I$ $a = -0.385138 - 0.397631I$ $b = -0.031080 + 0.185080I$	$3.64818 - 9.39869I$	0
$u = 0.553170 - 1.236710I$ $a = -0.385138 + 0.397631I$ $b = -0.031080 - 0.185080I$	$3.64818 + 9.39869I$	0
$u = 0.127390 + 1.368760I$ $a = -0.213496 + 1.070530I$ $b = -0.490099 - 0.855599I$	$6.57673 + 5.39594I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.127390 - 1.368760I$ $a = -0.213496 - 1.070530I$ $b = -0.490099 + 0.855599I$	$6.57673 - 5.39594I$	0
$u = 0.430812 + 0.429791I$ $a = 0.675148 + 0.192238I$ $b = 0.570653 - 0.291739I$	$-0.057787 + 1.208950I$	$-5.29737 - 2.08994I$
$u = 0.430812 - 0.429791I$ $a = 0.675148 - 0.192238I$ $b = 0.570653 + 0.291739I$	$-0.057787 - 1.208950I$	$-5.29737 + 2.08994I$
$u = -1.283960 + 0.550854I$ $a = 0.437215 + 0.147779I$ $b = 0.671595 + 0.210676I$	$-1.96822 + 1.77464I$	0
$u = -1.283960 - 0.550854I$ $a = 0.437215 - 0.147779I$ $b = 0.671595 - 0.210676I$	$-1.96822 - 1.77464I$	0
$u = 0.688811 + 1.231270I$ $a = -0.042936 - 0.847759I$ $b = 1.055450 + 0.011692I$	$-1.94819 - 0.99757I$	0
$u = 0.688811 - 1.231270I$ $a = -0.042936 + 0.847759I$ $b = 1.055450 - 0.011692I$	$-1.94819 + 0.99757I$	0
$u = -0.582039 + 0.007035I$ $a = -0.265476 + 0.634044I$ $b = -1.371920 - 0.161012I$	$-5.77224 - 3.23298I$	$-12.49225 + 0.68793I$
$u = -0.582039 - 0.007035I$ $a = -0.265476 - 0.634044I$ $b = -1.371920 + 0.161012I$	$-5.77224 + 3.23298I$	$-12.49225 - 0.68793I$
$u = -0.83556 + 1.14797I$ $a = -0.38547 - 1.60149I$ $b = -1.38409 + 0.55440I$	$0.68605 + 9.23528I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.83556-1.14797I$ $a=-0.38547+1.60149I$ $b=-1.38409-0.55440I$	$0.68605-9.23528I$	0
$u=-0.73688+1.22923I$ $a=-0.12923-1.60995I$ $b=-1.40701+0.58675I$	$-1.0435+21.2220I$	0
$u=-0.73688-1.22923I$ $a=-0.12923+1.60995I$ $b=-1.40701-0.58675I$	$-1.0435-21.2220I$	0
$u=-0.27448+1.41334I$ $a=\ \ 0.371753-0.951412I$ $b=-1.013180+0.515588I$	$2.22577+4.69723I$	0
$u=-0.27448-1.41334I$ $a=\ \ 0.371753+0.951412I$ $b=-1.013180-0.515588I$	$2.22577-4.69723I$	0
$u=\ \ 0.91550+1.11952I$ $a=-0.346457+0.847596I$ $b=-1.112730-0.222243I$	$-2.22020-6.72893I$	0
$u=\ \ 0.91550-1.11952I$ $a=-0.346457-0.847596I$ $b=-1.112730+0.222243I$	$-2.22020+6.72893I$	0
$u=\ \ 0.76626+1.23128I$ $a=-0.17856+1.56085I$ $b=-1.39911-0.57516I$	$-4.8380-15.1508I$	0
$u=\ \ 0.76626-1.23128I$ $a=-0.17856-1.56085I$ $b=-1.39911+0.57516I$	$-4.8380+15.1508I$	0
$u=-0.52472+1.39638I$ $a=-0.526176+0.562533I$ $b=\ \ 1.007640+0.064061I$	$-0.79033-1.89977I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.52472-1.39638I$ $a=-0.526176-0.562533I$ $b=1.007640-0.064061I$	$-0.79033+1.89977I$	0
$u=-0.88613+1.25564I$ $a=-0.130465-0.866414I$ $b=-1.187070+0.231146I$	$0.27244+11.50010I$	0
$u=-0.88613-1.25564I$ $a=-0.130465+0.866414I$ $b=-1.187070-0.231146I$	$0.27244-11.50010I$	0
$u=0.119603+0.438704I$ $a=0.638790+0.293626I$ $b=0.271986-0.402639I$	$-0.258253+1.098230I$	$-3.90317-4.93034I$
$u=0.119603-0.438704I$ $a=0.638790-0.293626I$ $b=0.271986+0.402639I$	$-0.258253-1.098230I$	$-3.90317+4.93034I$
$u=0.17094+1.54541I$ $a=0.398547+0.689632I$ $b=-0.985058-0.494481I$	$5.00937-10.36970I$	0
$u=0.17094-1.54541I$ $a=0.398547-0.689632I$ $b=-0.985058+0.494481I$	$5.00937+10.36970I$	0
$u=-0.134549+0.407002I$ $a=-1.37356-3.25758I$ $b=-1.233410+0.352558I$	$0.08475+6.24100I$	$-1.25730-5.53332I$
$u=-0.134549-0.407002I$ $a=-1.37356+3.25758I$ $b=-1.233410-0.352558I$	$0.08475-6.24100I$	$-1.25730+5.53332I$
$u=-0.402471+0.012592I$ $a=0.637973+0.290070I$ $b=0.385568-0.679782I$	$0.88956+2.71106I$	$-2.39539-3.77711I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.402471-0.012592I$ $a=\ 0.637973-0.290070I$ $b=\ 0.385568+0.679782I$	$0.88956-2.71106I$	$-2.39539+3.77711I$
$u=\ 0.42660+1.56338I$ $a=-0.406708-0.250358I$ $b=\ 1.086230-0.035717I$	$-1.43006+1.73859I$	0
$u=\ 0.42660-1.56338I$ $a=-0.406708+0.250358I$ $b=\ 1.086230+0.035717I$	$-1.43006-1.73859I$	0
$u=\ 0.296683+0.211677I$ $a=-1.47678-0.04423I$ $b=-1.45484+0.23814I$	$-5.03007+5.97986I$	$-11.0370-11.8347I$
$u=\ 0.296683-0.211677I$ $a=-1.47678+0.04423I$ $b=-1.45484-0.23814I$	$-5.03007-5.97986I$	$-11.0370+11.8347I$
$u=-1.14745+1.17747I$ $a=\ 0.136191+0.399887I$ $b=\ 0.898002-0.104186I$	$-1.86432+1.84715I$	0
$u=-1.14745-1.17747I$ $a=\ 0.136191-0.399887I$ $b=\ 0.898002+0.104186I$	$-1.86432-1.84715I$	0
$u=\ 0.349258+0.054456I$ $a=-0.997958+0.977378I$ $b=-1.44694-0.23115I$	$-5.03825-5.98954I$	$-7.90773+11.61503I$
$u=\ 0.349258-0.054456I$ $a=-0.997958-0.977378I$ $b=-1.44694+0.23115I$	$-5.03825+5.98954I$	$-7.90773-11.61503I$
$u=\ 1.67669$ $a=-1.67862$ $b=-1.68375$	-10.1754	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.017112 + 0.316988I$ $a = -4.12761 + 1.60874I$ $b = -1.291020 - 0.107394I$	$-5.04749 - 2.64059I$	$-12.73038 + 4.35414I$
$u = \quad 0.017112 - 0.316988I$ $a = -4.12761 - 1.60874I$ $b = -1.291020 + 0.107394I$	$-5.04749 + 2.64059I$	$-12.73038 - 4.35414I$
$u = -0.050760 + 0.210708I$ $a = -2.35818 + 0.76995I$ $b = -1.42065 - 0.18546I$	$-5.84273 - 3.32366I$	$-17.3616 - 3.0372I$
$u = -0.050760 - 0.210708I$ $a = -2.35818 - 0.76995I$ $b = -1.42065 + 0.18546I$	$-5.84273 + 3.32366I$	$-17.3616 + 3.0372I$

II. $\boldsymbol{I_2^u = \langle -6.35 \times 10^{39} u^{46} + 2.03 \times 10^{39} u^{45} + \cdots + 3.62 \times 10^{36} b + 1.99 \times 10^{38},\ -1.15 \times 10^{40} u^{46} + 4.71 \times 10^{39} u^{45} + \cdots + 3.62 \times 10^{36} a + 5.75 \times 10^{38},\ 4u^{47} - 2u^{46} + \cdots + 2u - 1 \rangle}$

(i) Arc colorings

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

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 3183.01u^{46} - 1299.08u^{45} + \cdots - 3266.51u - 158.579 \\ 1751.85u^{46} - 560.166u^{45} + \cdots - 1411.21u - 54.9083 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -3296.02u^{46} + 844.129u^{45} + \cdots + 1760.48u + 90.5380 \\ -250.316u^{46} + 229.209u^{45} + \cdots + 338.222u - 173.035 \end{pmatrix}$$

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

$$a_{11} = \begin{pmatrix} 4934.86u^{46} - 1859.24u^{45} + \cdots - 4677.73u - 213.487 \\ 1751.85u^{46} - 560.166u^{45} + \cdots - 1411.21u - 54.9083 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -2562.19u^{46} + 827.495u^{45} + \cdots + 2445.98u + 352.412 \\ 1020.23u^{46} - 496.109u^{45} + \cdots - 1000.02u + 56.1341 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 271.510u^{46} + 1001.13u^{45} + \cdots + 1109.67u - 852.972 \\ -1592.74u^{46} + 1635.50u^{45} + \cdots + 2613.91u - 832.672 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 871.596u^{46} + 772.561u^{45} + \cdots + 605.683u - 844.107 \\ -1169.79u^{46} + 1450.85u^{45} + \cdots + 2224.21u - 805.939 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 289.755u^{46} - 1103.45u^{45} + \cdots - 2141.98u + 826.842 \\ -577.189u^{46} - 288.427u^{45} + \cdots - 153.868u + 464.687 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1980.62u^{46} - 1620.58u^{45} + \cdots - 2463.57u + 709.849 \\ 1607.02u^{46} - 1111.53u^{45} + \cdots - 2093.06u + 473.744 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -14903.8u^{46} + 9580.28u^{45} + \cdots + 19145.2u - 3317.60$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{47} - 5u^{46} + \cdots - 26u - 11$
c_2	$4(4u^{47} + 2u^{46} + \cdots + 2u + 1)$
c_3	$4(4u^{47} - 6u^{46} + \cdots - 9u + 7)$
c_4	$u^{47} + 5u^{46} + \cdots - 26u + 11$
c_5	$u^{47} + 4u^{46} + \cdots - 44u - 7$
c_6	$4(4u^{47} - 2u^{46} + \cdots + 2u - 1)$
c_7	$u^{47} + 6u^{46} + \cdots + 464u + 448$
c_8	$u^{47} - 2u^{46} + \cdots - 374u - 92$
c_9	$4(4u^{47} - 2u^{46} + \cdots + 12u - 1)$
c_{10}	$16(16u^{47} + 452u^{46} + \cdots + 25u + 1)$
c_{11}	$u^{47} - 4u^{46} + \cdots - 44u + 7$
c_{12}	$u^{47} - 6u^{46} + \cdots + 112u + 32$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{47} + 29y^{46} + \cdots - 1128y - 121$
c_2, c_6	$16(16y^{47} + 436y^{46} + \cdots - 44y - 1)$
c_3	$16(16y^{47} + 372y^{46} + \cdots + 3735y - 49)$
c_5, c_{11}	$y^{47} - 28y^{46} + \cdots + 788y - 49$
c_7	$y^{47} - 34y^{46} + \cdots + 1394432y - 200704$
c_8	$y^{47} + 20y^{46} + \cdots - 375140y - 8464$
c_9	$16(16y^{47} + 212y^{46} + \cdots + 176y - 1)$
c_{10}	$256(256y^{47} - 7536y^{46} + \cdots + 69y - 1)$
c_{12}	$y^{47} - 22y^{46} + \cdots + 256y - 1024$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.328385+0.965643I$ $a=-0.39992-1.69323I$ $b=\ \ 0.221731+0.743367I$	$1.59822+4.39500I$	0
$u=-0.328385-0.965643I$ $a=-0.39992+1.69323I$ $b=\ \ 0.221731-0.743367I$	$1.59822-4.39500I$	0
$u=\ \ 0.372015+0.891119I$ $a=\ \ 1.62026-1.78188I$ $b=-0.11915+1.97919I$	$7.00386-1.55548I$	$32.6296-23.6911I$
$u=\ \ 0.372015-0.891119I$ $a=\ \ 1.62026+1.78188I$ $b=-0.11915-1.97919I$	$7.00386+1.55548I$	$32.6296+23.6911I$
$u=\ \ 0.373362+0.966215I$ $a=-0.896248+0.171297I$ $b=-1.356610-0.020960I$	$-3.99684-3.77292I$	0
$u=\ \ 0.373362-0.966215I$ $a=-0.896248-0.171297I$ $b=-1.356610+0.020960I$	$-3.99684+3.77292I$	0
$u=-0.286699+1.011400I$ $a=\ \ 0.812610+1.089630I$ $b=-0.163011-0.820284I$	$1.68099+0.83477I$	0
$u=-0.286699-1.011400I$ $a=\ \ 0.812610-1.089630I$ $b=-0.163011+0.820284I$	$1.68099-0.83477I$	0
$u=\ \ 0.939244+0.128508I$ $a=-0.311096+0.118870I$ $b=-1.280900-0.231588I$	$-5.75239-5.08827I$	0
$u=\ \ 0.939244-0.128508I$ $a=-0.311096-0.118870I$ $b=-1.280900+0.231588I$	$-5.75239+5.08827I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.229764+0.908244I$ $a=\ \ 0.408740-0.587104I$ $b=\ \ 0.172807+0.606694I$	$1.18300-2.04251I$	0
$u=-0.229764-0.908244I$ $a=\ \ 0.408740+0.587104I$ $b=\ \ 0.172807-0.606694I$	$1.18300+2.04251I$	0
$u=-1.060540+0.200239I$ $a=-0.700646+0.022555I$ $b=-0.262881-0.515843I$	$-2.21986+2.49706I$	0
$u=-1.060540-0.200239I$ $a=-0.700646-0.022555I$ $b=-0.262881+0.515843I$	$-2.21986-2.49706I$	0
$u=\ \ 0.056900+0.892513I$ $a=\ \ 0.279535+1.066590I$ $b=\ \ 0.245091-0.755735I$	$0.863089+0.188490I$	$-4.00000+0.I$
$u=\ \ 0.056900-0.892513I$ $a=\ \ 0.279535-1.066590I$ $b=\ \ 0.245091+0.755735I$	$0.863089-0.188490I$	$-4.00000+0.I$
$u=-0.537609+1.014750I$ $a=-0.515293-0.986559I$ $b=-1.392200+0.142273I$	$-0.05029+8.80381I$	0
$u=-0.537609-1.014750I$ $a=-0.515293+0.986559I$ $b=-1.392200-0.142273I$	$-0.05029-8.80381I$	0
$u=\ \ 0.336429+1.105390I$ $a=\ \ 1.078940-0.388633I$ $b=-0.332196+0.035427I$	$5.26723+1.61167I$	0
$u=\ \ 0.336429-1.105390I$ $a=\ \ 1.078940+0.388633I$ $b=-0.332196-0.035427I$	$5.26723-1.61167I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.358664 + 0.756480I$ $a = -1.32786 + 1.86534I$ $b = 0.331226 - 0.431471I$	$3.75854 - 4.56032I$	$3.16500 + 3.08699I$
$u = 0.358664 - 0.756480I$ $a = -1.32786 - 1.86534I$ $b = 0.331226 + 0.431471I$	$3.75854 + 4.56032I$	$3.16500 - 3.08699I$
$u = -0.636072 + 0.986185I$ $a = 0.13691 + 2.09724I$ $b = 1.34756 - 0.51734I$	$-0.36285 + 8.71646I$	0
$u = -0.636072 - 0.986185I$ $a = 0.13691 - 2.09724I$ $b = 1.34756 + 0.51734I$	$-0.36285 - 8.71646I$	0
$u = 0.712745 + 0.991062I$ $a = -0.912789 + 0.971509I$ $b = -0.16456 - 1.43661I$	$4.85665 - 2.93828I$	0
$u = 0.712745 - 0.991062I$ $a = -0.912789 - 0.971509I$ $b = -0.16456 + 1.43661I$	$4.85665 + 2.93828I$	0
$u = -0.625719 + 1.055940I$ $a = -0.204146 + 0.298982I$ $b = -1.41546 - 0.39204I$	$-0.26511 - 3.35102I$	0
$u = -0.625719 - 1.055940I$ $a = -0.204146 - 0.298982I$ $b = -1.41546 + 0.39204I$	$-0.26511 + 3.35102I$	0
$u = 0.495824 + 1.132560I$ $a = -0.37665 - 1.83720I$ $b = 1.36864 + 0.49577I$	$-2.34012 - 9.25044I$	0
$u = 0.495824 - 1.132560I$ $a = -0.37665 + 1.83720I$ $b = 1.36864 - 0.49577I$	$-2.34012 + 9.25044I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.662602+1.117920I$ $a=-0.066224-1.196720I$ $b=-0.763178+0.352164I$	$-0.72080+5.50751I$	0
$u=-0.662602-1.117920I$ $a=-0.066224+1.196720I$ $b=-0.763178-0.352164I$	$-0.72080-5.50751I$	0
$u=0.532006+1.253870I$ $a=0.775705+1.006620I$ $b=-0.822543-0.221396I$	$2.78349-9.92226I$	0
$u=0.532006-1.253870I$ $a=0.775705-1.006620I$ $b=-0.822543+0.221396I$	$2.78349+9.92226I$	0
$u=0.225598+0.538458I$ $a=-0.393745+0.080851I$ $b=-1.49390+0.26101I$	$-4.81427+5.68858I$	$3.01824+5.38660I$
$u=0.225598-0.538458I$ $a=-0.393745-0.080851I$ $b=-1.49390-0.26101I$	$-4.81427-5.68858I$	$3.01824-5.38660I$
$u=-0.232071+0.503377I$ $a=1.41794+3.70018I$ $b=1.315840-0.224973I$	$-2.24001-4.44923I$	$-5.41620+3.23270I$
$u=-0.232071-0.503377I$ $a=1.41794-3.70018I$ $b=1.315840+0.224973I$	$-2.24001+4.44923I$	$-5.41620-3.23270I$
$u=0.071761+0.540633I$ $a=-0.507295+0.008812I$ $b=-1.46802-0.16514I$	$-5.55349-3.45064I$	$6.28110+6.98962I$
$u=0.071761-0.540633I$ $a=-0.507295-0.008812I$ $b=-1.46802+0.16514I$	$-5.55349+3.45064I$	$6.28110-6.98962I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.013024 + 0.535623I$ $a = -0.50375 + 6.16837I$ $b = 1.024720 - 0.293663I$	$-1.22810 + 7.18003I$	$-2.99486 - 11.43216I$
$u = 0.013024 - 0.535623I$ $a = -0.50375 - 6.16837I$ $b = 1.024720 + 0.293663I$	$-1.22810 - 7.18003I$	$-2.99486 + 11.43216I$
$u = 0.084449 + 0.487077I$ $a = 1.45742 - 5.59096I$ $b = 1.150110 + 0.241168I$	$-5.86249 - 1.24973I$	$-10.07188 + 3.74624I$
$u = 0.084449 - 0.487077I$ $a = 1.45742 + 5.59096I$ $b = 1.150110 - 0.241168I$	$-5.86249 + 1.24973I$	$-10.07188 - 3.74624I$
$u = 1.68161$ $a = 1.67147$ $b = 1.68593$	-10.1701	0
$u = -0.56336 + 2.02188I$ $a = -0.208122 + 0.198986I$ $b = 1.013910 - 0.056644I$	$-1.66284 + 1.84757I$	0
$u = -0.56336 - 2.02188I$ $a = -0.208122 - 0.198986I$ $b = 1.013910 + 0.056644I$	$-1.66284 - 1.84757I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{47}-5u^{46}+\cdots-26u-11)(u^{184}-6u^{183}+\cdots-249u+23)$
c_2	$16(4u^{47}+2u^{46}+\cdots+2u+1)(4u^{184}+18u^{183}+\cdots-u-1)$
c_3	$16(4u^{47}-6u^{46}+\cdots-9u+7)$ $\cdot(4u^{184}+10u^{183}+\cdots+6499876u-332573)$
c_4	$(u^{47}+5u^{46}+\cdots-26u+11)(u^{184}-6u^{183}+\cdots-249u+23)$
c_5	$(u^{47}+4u^{46}+\cdots-44u-7)(u^{184}-5u^{183}+\cdots-626819u-61241)$
c_6	$16(4u^{47}-2u^{46}+\cdots+2u-1)(4u^{184}+18u^{183}+\cdots-u-1)$
c_7	$(u^{47}+6u^{46}+\cdots+464u+448)$ $\cdot(u^{184}+3u^{183}+\cdots-584840944u+146659264)$
c_8	$(u^{47}-2u^{46}+\cdots-374u-92)$ $\cdot(u^{184}-7u^{183}+\cdots-15606197942u-994895348)$
c_9	$16(4u^{47}-2u^{46}+\cdots+12u-1)(4u^{184}-6u^{183}+\cdots+64953u+127)$
c_{10}	$256(16u^{47}+452u^{46}+\cdots+25u+1)$ $\cdot(16u^{184}+372u^{183}+\cdots+25292768u+2248063)$
c_{11}	$(u^{47}-4u^{46}+\cdots-44u+7)(u^{184}-5u^{183}+\cdots-626819u-61241)$
c_{12}	$(u^{47}-6u^{46}+\cdots+112u+32)$ $\cdot(u^{184}+15u^{183}+\cdots+3307328u+94624)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$(y^{47} + 29y^{46} + \cdots - 1128y - 121)$ $\cdot (y^{184} + 112y^{183} + \cdots + 67259y + 529)$
c_2, c_6	$256(16y^{47} + 436y^{46} + \cdots - 44y - 1)$ $\cdot (16y^{184} + 1444y^{183} + \cdots + 75y + 1)$
c_3	$256(16y^{47} + 372y^{46} + \cdots + 3735y - 49)$ $\cdot (16y^{184} + 164y^{183} + \cdots - 4681383592320y + 110604800329)$
c_5, c_{11}	$(y^{47} - 28y^{46} + \cdots + 788y - 49)$ $\cdot (y^{184} - 121y^{183} + \cdots + 83127663735y + 3750460081)$
c_7	$(y^{47} - 34y^{46} + \cdots + 1394432y - 200704)$ $\cdot (y^{184} - 59y^{183} + \cdots - 2085041048441058048y + 21508939717021696)$
c_8	$(y^{47} + 20y^{46} + \cdots - 375140y - 8464)$ $\cdot (y^{184} + 67y^{183} + \cdots + 1.72 \times 10^{19}y + 9.90 \times 10^{17})$
c_9	$256(16y^{47} + 212y^{46} + \cdots + 176y - 1)$ $\cdot (16y^{184} - 60y^{183} + \cdots - 4554832101y + 16129)$
c_{10}	$65536(256y^{47} - 7536y^{46} + \cdots + 69y - 1)$ $\cdot (256y^{184} - 9328y^{183} + \cdots - 317358447741910y + 5053787251969)$
c_{12}	$(y^{47} - 22y^{46} + \cdots + 256y - 1024)$ $\cdot (y^{184} + 5y^{183} + \cdots + 1539978428928y + 8953701376)$