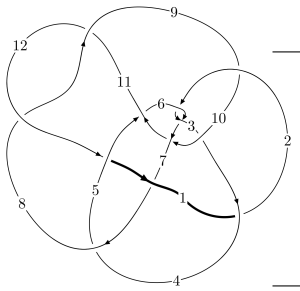
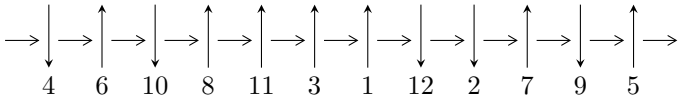
$12a_{0951}$ $(K12a_{0951})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -3.27230 \times 10^{1426} u^{193} + 6.48474 \times 10^{1427} u^{192} + \cdots + 2.85303 \times 10^{1429} b + 7.63301 \times 10^{1432}, \\ & - 6.63186 \times 10^{1432} u^{193} + 2.10738 \times 10^{1433} u^{192} + \cdots + 4.49783 \times 10^{1434} a - 1.59873 \times 10^{1438}, \\ & u^{194} - 5u^{193} + \cdots - 1119128u + 157651 \rangle \\ I_2^u = \langle & -1.54069 \times 10^{49} u^{46} + 1.60376 \times 10^{50} u^{45} + \cdots + 5.91894 \times 10^{49} b - 1.65232 \times 10^{50}, \\ & - 6.13499 \times 10^{50} u^{46} + 7.39476 \times 10^{51} u^{45} + \cdots + 5.91894 \times 10^{49} a - 1.44700 \times 10^{52}, \\ & u^{47} - 12u^{46} + \cdots + 58u - 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 241 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. $\boldsymbol{I_1^u = \langle -3.27 \times 10^{1426} u^{193} + 6.48 \times 10^{1427} u^{192} + \cdots + 2.85 \times 10^{1429} b + 7.63 \times 10^{1432},\ -6.63 \times 10^{1432} u^{193} + 2.11 \times 10^{1433} u^{192} + \cdots + 4.50 \times 10^{1434} a - 1.60 \times 10^{1438},\ u^{194} - 5u^{193} + \cdots - 1119128u + 157651 \rangle}$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.0147446u^{193} - 0.0468534u^{192} + \cdots - 24069.2u + 3554.44 \\ 0.00114696u^{193} - 0.0227293u^{192} + \cdots + 19755.5u - 2675.41 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.00833197u^{193} - 0.0782035u^{192} + \cdots + 36715.7u - 4821.25 \\ 0.0146802u^{193} - 0.0906046u^{192} + \cdots + 13746.0u - 1660.10 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.0135976u^{193} - 0.0241240u^{192} + \cdots - 43824.8u + 6229.85 \\ 0.00114696u^{193} - 0.0227293u^{192} + \cdots + 19755.5u - 2675.41 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.0308401u^{193} - 0.276956u^{192} + \cdots + 121339.u - 16125.2 \\ -0.00477786u^{193} + 0.124624u^{192} + \cdots - 99644.9u + 13722.4 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.0172265u^{193} - 0.0100294u^{192} + \cdots - 83320.6u + 11703.9 \\ -0.0220203u^{193} + 0.0900415u^{192} + \cdots + 26764.2u - 4108.74 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.00495432u^{193} + 0.0150898u^{192} + \cdots - 40759.3u + 5655.43 \\ -0.000435455u^{193} - 0.0130372u^{192} + \cdots + 19148.5u - 2622.59 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.174327u^{193} - 0.948024u^{192} + \cdots + 74897.4u - 7006.96 \\ -0.0195033u^{193} + 0.214641u^{192} + \cdots - 118724.u + 16042.2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.0328154u^{193} - 0.211872u^{192} + \cdots + 51155.0u - 6320.11 \\ -0.00238623u^{193} + 0.00592457u^{192} + \cdots + 1963.76u - 309.126 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.144687u^{193} + 0.778133u^{192} + \cdots - 43152.8u + 3187.26$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{194} - 15u^{193} + \cdots + 4276480u - 140732$
c_2, c_6	$u^{194} - 2u^{193} + \cdots - 115u + 763$
c_3	$u^{194} - 3u^{193} + \cdots + 10121514u - 2950781$
c_4	$u^{194} - 5u^{193} + \cdots - 1229250u - 450361$
c_5	$u^{194} - 3u^{193} + \cdots + 1930268u - 110863$
c_7	$u^{194} + 3u^{193} + \cdots + 39u + 1$
c_8, c_{11}	$u^{194} + 5u^{193} + \cdots + 1119128u + 157651$
c_9	$u^{194} - 2u^{193} + \cdots + 29446983u - 7136263$
c_{10}	$u^{194} - 6u^{193} + \cdots - 4089433u + 368299$
c_{12}	$u^{194} - 3u^{193} + \cdots - 1779u - 187$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{194} + 57y^{193} + \cdots + 9871873955280y + 19805495824$
c_2, c_6	$y^{194} - 122y^{193} + \cdots - 27508693y + 582169$
c_3	$y^{194} + 43y^{193} + \cdots - 281074639663414y + 8707108509961$
c_4	$y^{194} - 49y^{193} + \cdots - 4233488708222y + 202825030321$
c_5	$y^{194} + 9y^{193} + \cdots - 1148717911644y + 12290604769$
c_7	$y^{194} + 11y^{193} + \cdots - 137y + 1$
c_8, c_{11}	$y^{194} + 145y^{193} + \cdots - 983610590218y + 24853837801$
c_9	$y^{194} + 70y^{193} + \cdots + 2458572666392573y + 50926249605169$
c_{10}	$y^{194} - 20y^{193} + \cdots - 11280170985833y + 135644153401$
c_{12}	$y^{194} - 31y^{193} + \cdots - 837813y + 34969$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.384187+0.923055I$ $a=\ \ 0.53775-1.59785I$ $b=-0.805099-0.707456I$	$0.882578-0.354022I$	0
$u=-0.384187-0.923055I$ $a=\ \ 0.53775+1.59785I$ $b=-0.805099+0.707456I$	$0.882578+0.354022I$	0
$u=\ \ 0.547871+0.829575I$ $a=-0.354733+0.297690I$ $b=\ \ 2.06672+1.19986I$	$1.28330-2.18942I$	0
$u=\ \ 0.547871-0.829575I$ $a=-0.354733-0.297690I$ $b=\ \ 2.06672-1.19986I$	$1.28330+2.18942I$	0
$u=-0.209765+0.961427I$ $a=\ \ 0.65792-1.31308I$ $b=-1.29266-0.70184I$	$5.17068+4.36065I$	0
$u=-0.209765-0.961427I$ $a=\ \ 0.65792+1.31308I$ $b=-1.29266+0.70184I$	$5.17068-4.36065I$	0
$u=-0.067146+0.979563I$ $a=-1.207000+0.288332I$ $b=\ \ 1.65912+0.33912I$	$-1.39515+2.23030I$	0
$u=-0.067146-0.979563I$ $a=-1.207000-0.288332I$ $b=\ \ 1.65912-0.33912I$	$-1.39515-2.23030I$	0
$u=\ \ 0.929594+0.230082I$ $a=-0.075912-0.942965I$ $b=\ \ 0.446309-0.753113I$	$-1.90842-1.54765I$	0
$u=\ \ 0.929594-0.230082I$ $a=-0.075912+0.942965I$ $b=\ \ 0.446309+0.753113I$	$-1.90842+1.54765I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.317208+0.993886I$ $a=\ \ 0.248922-0.356553I$ $b=\ \ 0.37881-1.87980I$	$0.40586+6.78834I$	0
$u=-0.317208-0.993886I$ $a=\ \ 0.248922+0.356553I$ $b=\ \ 0.37881+1.87980I$	$0.40586-6.78834I$	0
$u=-0.133115+1.035690I$ $a=\ \ 1.42681-0.39663I$ $b=-1.54051-0.24913I$	$2.39749+7.47414I$	0
$u=-0.133115-1.035690I$ $a=\ \ 1.42681+0.39663I$ $b=-1.54051+0.24913I$	$2.39749-7.47414I$	0
$u=\ \ 0.909210+0.258622I$ $a=-0.366460-0.752034I$ $b=-0.068197-0.805149I$	$-1.87235-1.23811I$	0
$u=\ \ 0.909210-0.258622I$ $a=-0.366460+0.752034I$ $b=-0.068197+0.805149I$	$-1.87235+1.23811I$	0
$u=\ \ 0.322789+1.004590I$ $a=\ \ 0.115468+0.516083I$ $b=\ \ 0.381496+0.979514I$	$0.47698-2.62744I$	0
$u=\ \ 0.322789-1.004590I$ $a=\ \ 0.115468-0.516083I$ $b=\ \ 0.381496-0.979514I$	$0.47698+2.62744I$	0
$u=-0.970856+0.442065I$ $a=\ \ 0.678964+0.191918I$ $b=\ \ 0.740155-0.339848I$	$5.49512-3.29198I$	0
$u=-0.970856-0.442065I$ $a=\ \ 0.678964-0.191918I$ $b=\ \ 0.740155+0.339848I$	$5.49512+3.29198I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.100011+1.073050I$ $a=-0.43422+1.88249I$ $b=\ \ 0.909644+0.229531I$	$9.38363+0.54889I$	0
$u=-0.100011-1.073050I$ $a=-0.43422-1.88249I$ $b=\ \ 0.909644-0.229531I$	$9.38363-0.54889I$	0
$u=\ \ 0.183561+1.062180I$ $a=\ \ 0.808569-0.277045I$ $b=-1.74530-0.46331I$	$3.45076-1.76457I$	0
$u=\ \ 0.183561-1.062180I$ $a=\ \ 0.808569+0.277045I$ $b=-1.74530+0.46331I$	$3.45076+1.76457I$	0
$u=\ \ 0.727729+0.558414I$ $a=-0.411433-0.800613I$ $b=\ \ 0.840718-0.714335I$	$-1.56282-1.54817I$	0
$u=\ \ 0.727729-0.558414I$ $a=-0.411433+0.800613I$ $b=\ \ 0.840718+0.714335I$	$-1.56282+1.54817I$	0
$u=-0.021838+1.083020I$ $a=-0.87788+1.16124I$ $b=\ \ 1.32343+0.68730I$	$6.20464+3.83618I$	0
$u=-0.021838-1.083020I$ $a=-0.87788-1.16124I$ $b=\ \ 1.32343-0.68730I$	$6.20464-3.83618I$	0
$u=\ \ 0.588558+0.909939I$ $a=-0.067213+0.364998I$ $b=-0.01545+1.58534I$	$1.00993-2.04639I$	0
$u=\ \ 0.588558-0.909939I$ $a=-0.067213-0.364998I$ $b=-0.01545-1.58534I$	$1.00993+2.04639I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.093755 + 1.088810I$ $a = 0.94274 - 1.31144I$ $b = -0.741405 - 0.260404I$	$3.22267 - 0.45617I$	0
$u = 0.093755 - 1.088810I$ $a = 0.94274 + 1.31144I$ $b = -0.741405 + 0.260404I$	$3.22267 + 0.45617I$	0
$u = -0.106457 + 1.097550I$ $a = -0.149029 + 0.249252I$ $b = -0.50404 + 1.96691I$	$5.84091 + 0.86513I$	0
$u = -0.106457 - 1.097550I$ $a = -0.149029 - 0.249252I$ $b = -0.50404 - 1.96691I$	$5.84091 - 0.86513I$	0
$u = -0.024652 + 1.103430I$ $a = -0.235632 - 0.868158I$ $b = 1.10516 - 1.63869I$	$6.52151 + 0.51104I$	0
$u = -0.024652 - 1.103430I$ $a = -0.235632 + 0.868158I$ $b = 1.10516 + 1.63869I$	$6.52151 - 0.51104I$	0
$u = -0.806229 + 0.390588I$ $a = -0.715276 - 0.623908I$ $b = -0.832062 - 0.493893I$	$1.65776 - 0.16374I$	0
$u = -0.806229 - 0.390588I$ $a = -0.715276 + 0.623908I$ $b = -0.832062 + 0.493893I$	$1.65776 + 0.16374I$	0
$u = 0.428627 + 0.784720I$ $a = -0.22687 + 1.60637I$ $b = -0.789215 + 0.751485I$	$0.53364 - 5.06652I$	0
$u = 0.428627 - 0.784720I$ $a = -0.22687 - 1.60637I$ $b = -0.789215 - 0.751485I$	$0.53364 + 5.06652I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.697781+0.548563I$ $a=-1.136800+0.567887I$ $b=-0.598221+0.555474I$	$-0.31010+4.61607I$	0
$u=-0.697781-0.548563I$ $a=-1.136800-0.567887I$ $b=-0.598221-0.555474I$	$-0.31010-4.61607I$	0
$u=-0.113001+1.110790I$ $a=1.46316+1.42866I$ $b=-0.591997-0.029070I$	$2.88948+5.70871I$	0
$u=-0.113001-1.110790I$ $a=1.46316-1.42866I$ $b=-0.591997+0.029070I$	$2.88948-5.70871I$	0
$u=0.184699+1.106530I$ $a=0.478732+0.748414I$ $b=-1.74322+1.17361I$	$3.96498-6.97076I$	0
$u=0.184699-1.106530I$ $a=0.478732-0.748414I$ $b=-1.74322-1.17361I$	$3.96498+6.97076I$	0
$u=1.128180+0.151128I$ $a=0.607242+0.594696I$ $b=0.783317+0.563490I$	$-1.30042+3.17379I$	0
$u=1.128180-0.151128I$ $a=0.607242-0.594696I$ $b=0.783317-0.563490I$	$-1.30042-3.17379I$	0
$u=-0.268237+0.805354I$ $a=0.327458+1.047400I$ $b=0.873437-0.213738I$	$5.12044-3.25393I$	0
$u=-0.268237-0.805354I$ $a=0.327458-1.047400I$ $b=0.873437+0.213738I$	$5.12044+3.25393I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.410483+1.081760I$ $a=-0.186288+0.393603I$ $b=-0.45581+1.88365I$	$4.42633+12.80160I$	0
$u=-0.410483-1.081760I$ $a=-0.186288-0.393603I$ $b=-0.45581-1.88365I$	$4.42633-12.80160I$	0
$u=0.106512+1.153680I$ $a=-0.61325-1.89560I$ $b=0.602464-0.150181I$	$8.66222-0.88413I$	0
$u=0.106512-1.153680I$ $a=-0.61325+1.89560I$ $b=0.602464+0.150181I$	$8.66222+0.88413I$	0
$u=0.272154+1.132360I$ $a=0.08019-1.70009I$ $b=0.705381-0.131388I$	$8.57265-0.97336I$	0
$u=0.272154-1.132360I$ $a=0.08019+1.70009I$ $b=0.705381+0.131388I$	$8.57265+0.97336I$	0
$u=-1.165750+0.016804I$ $a=0.612918+0.717723I$ $b=0.909049+0.816394I$	$-1.26176+9.55015I$	0
$u=-1.165750-0.016804I$ $a=0.612918-0.717723I$ $b=0.909049-0.816394I$	$-1.26176-9.55015I$	0
$u=-0.187968+1.153950I$ $a=1.41627+0.02807I$ $b=-0.858920-0.338392I$	$6.19578+3.16235I$	0
$u=-0.187968-1.153950I$ $a=1.41627-0.02807I$ $b=-0.858920+0.338392I$	$6.19578-3.16235I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.046994 + 1.174320I$ $a = 0.356754 - 1.000260I$ $b = -0.901498 - 0.025037I$	$6.84747 - 3.47433I$	0
$u = 0.046994 - 1.174320I$ $a = 0.356754 + 1.000260I$ $b = -0.901498 + 0.025037I$	$6.84747 + 3.47433I$	0
$u = -0.360883 + 1.119560I$ $a = -0.58212 + 1.33785I$ $b = 0.944194 + 0.894544I$	$-1.74834 + 5.54437I$	0
$u = -0.360883 - 1.119560I$ $a = -0.58212 - 1.33785I$ $b = 0.944194 - 0.894544I$	$-1.74834 - 5.54437I$	0
$u = 1.175870 + 0.039345I$ $a = -0.301766 + 0.532082I$ $b = -0.837138 + 0.991374I$	$-0.63520 - 2.80694I$	0
$u = 1.175870 - 0.039345I$ $a = -0.301766 - 0.532082I$ $b = -0.837138 - 0.991374I$	$-0.63520 + 2.80694I$	0
$u = -0.710347 + 0.406679I$ $a = 0.824024 - 0.834864I$ $b = -1.07466 - 0.93656I$	$2.38127 - 8.54256I$	0
$u = -0.710347 - 0.406679I$ $a = 0.824024 + 0.834864I$ $b = -1.07466 + 0.93656I$	$2.38127 + 8.54256I$	0
$u = -0.190968 + 1.172120I$ $a = -1.33436 - 1.24094I$ $b = 0.654821 + 0.028846I$	$7.14634 + 11.85640I$	0
$u = -0.190968 - 1.172120I$ $a = -1.33436 + 1.24094I$ $b = 0.654821 - 0.028846I$	$7.14634 - 11.85640I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.665458 + 0.984766I$ $a = 0.228943 + 0.394990I$ $b = -0.088578 + 0.984599I$	$-0.11278 - 4.00020I$	0
$u = 0.665458 - 0.984766I$ $a = 0.228943 - 0.394990I$ $b = -0.088578 - 0.984599I$	$-0.11278 + 4.00020I$	0
$u = -0.026484 + 1.199200I$ $a = 0.037826 + 0.244754I$ $b = -1.73820 + 0.38167I$	$5.71665 + 5.06428I$	0
$u = -0.026484 - 1.199200I$ $a = 0.037826 - 0.244754I$ $b = -1.73820 - 0.38167I$	$5.71665 - 5.06428I$	0
$u = -0.302106 + 1.168640I$ $a = -0.583894 + 1.223100I$ $b = 0.851712 + 1.128200I$	$-1.43312 + 5.51895I$	0
$u = -0.302106 - 1.168640I$ $a = -0.583894 - 1.223100I$ $b = 0.851712 - 1.128200I$	$-1.43312 - 5.51895I$	0
$u = 0.418811 + 1.143070I$ $a = 0.231939 + 0.871884I$ $b = -0.593553 + 0.995363I$	$0.76686 - 3.40450I$	0
$u = 0.418811 - 1.143070I$ $a = 0.231939 - 0.871884I$ $b = -0.593553 - 0.995363I$	$0.76686 + 3.40450I$	0
$u = -0.768396 + 0.123348I$ $a = -0.88816 - 1.14852I$ $b = -0.983151 - 0.737691I$	$4.04348 + 5.09661I$	0
$u = -0.768396 - 0.123348I$ $a = -0.88816 + 1.14852I$ $b = -0.983151 + 0.737691I$	$4.04348 - 5.09661I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$1.211190+0.219967I$		
$a=$	$0.207834-0.710594I$	$-0.80913-4.70060I$	0
$b=$	$0.998430-0.907812I$		
$u=$	$1.211190-0.219967I$		
$a=$	$0.207834+0.710594I$	$-0.80913+4.70060I$	0
$b=$	$0.998430+0.907812I$		
$u=$	$-0.016601+1.237330I$		
$a=$	$0.372544-1.192730I$	$5.98313-0.93238I$	0
$b=$	$-0.295113-1.151430I$		
$u=$	$-0.016601-1.237330I$		
$a=$	$0.372544+1.192730I$	$5.98313+0.93238I$	0
$b=$	$-0.295113+1.151430I$		
$u=$	$-0.760502+0.009749I$		
$a=$	$-0.98454+1.42877I$	$-0.97472-8.07711I$	0
$b=$	$-0.489014+0.715572I$		
$u=$	$-0.760502-0.009749I$		
$a=$	$-0.98454-1.42877I$	$-0.97472+8.07711I$	0
$b=$	$-0.489014-0.715572I$		
$u=$	$-0.625148+0.422116I$		
$a=$	$1.36027-0.57232I$	$-3.98732-1.76256I$	0
$b=$	$0.700287-0.717317I$		
$u=$	$-0.625148-0.422116I$		
$a=$	$1.36027+0.57232I$	$-3.98732+1.76256I$	0
$b=$	$0.700287+0.717317I$		
$u=$	$0.480325+1.153660I$		
$a=$	$0.021123-0.311255I$	$2.18953-3.09823I$	0
$b=$	$0.04944-1.63014I$		
$u=$	$0.480325-1.153660I$		
$a=$	$0.021123+0.311255I$	$2.18953+3.09823I$	0
$b=$	$0.04944+1.63014I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.072535 + 1.251720I$ $a = -1.286300 - 0.585761I$ $b = 0.714844 - 0.016193I$	$4.31899 - 2.92255I$	0
$u = 0.072535 - 1.251720I$ $a = -1.286300 + 0.585761I$ $b = 0.714844 + 0.016193I$	$4.31899 + 2.92255I$	0
$u = -0.082900 + 0.727312I$ $a = 0.254407 - 0.031281I$ $b = 0.871211 - 0.957883I$	$-1.89677 - 1.12936I$	0
$u = -0.082900 - 0.727312I$ $a = 0.254407 + 0.031281I$ $b = 0.871211 + 0.957883I$	$-1.89677 + 1.12936I$	0
$u = 0.840035 + 0.953340I$ $a = 0.291724 + 0.641259I$ $b = -0.875398 + 1.052420I$	$-0.37450 - 4.51549I$	0
$u = 0.840035 - 0.953340I$ $a = 0.291724 - 0.641259I$ $b = -0.875398 - 1.052420I$	$-0.37450 + 4.51549I$	0
$u = 0.547766 + 0.463046I$ $a = -0.625553 - 0.307190I$ $b = 0.204842 - 0.802732I$	$-1.50224 - 1.03964I$	0
$u = 0.547766 - 0.463046I$ $a = -0.625553 + 0.307190I$ $b = 0.204842 + 0.802732I$	$-1.50224 + 1.03964I$	0
$u = 0.702208 + 0.130283I$ $a = 0.24643 + 2.03053I$ $b = -0.006197 + 0.173515I$	$0.202571 - 0.521125I$	0
$u = 0.702208 - 0.130283I$ $a = 0.24643 - 2.03053I$ $b = -0.006197 - 0.173515I$	$0.202571 + 0.521125I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.359776+0.610937I$ $a=-0.720232+0.391435I$ $b=-0.986519+0.632007I$	$1.41377-5.58523I$	0
$u=-0.359776-0.610937I$ $a=-0.720232-0.391435I$ $b=-0.986519-0.632007I$	$1.41377+5.58523I$	0
$u=0.251853+1.271210I$ $a=-1.38115+1.26388I$ $b=0.494968+0.291638I$	$4.22314-3.17287I$	0
$u=0.251853-1.271210I$ $a=-1.38115-1.26388I$ $b=0.494968-0.291638I$	$4.22314+3.17287I$	0
$u=-1.297970+0.139898I$ $a=-0.468962-0.727736I$ $b=-0.913762-0.866259I$	$2.1456+15.1856I$	0
$u=-1.297970-0.139898I$ $a=-0.468962+0.727736I$ $b=-0.913762+0.866259I$	$2.1456-15.1856I$	0
$u=-1.233470+0.427832I$ $a=0.454725+0.407824I$ $b=0.735861+0.578421I$	$4.61090-5.19346I$	0
$u=-1.233470-0.427832I$ $a=0.454725-0.407824I$ $b=0.735861-0.578421I$	$4.61090+5.19346I$	0
$u=-0.414096+1.248100I$ $a=0.138946+0.993040I$ $b=0.932244+0.213064I$	$10.21770+0.70258I$	0
$u=-0.414096-1.248100I$ $a=0.138946-0.993040I$ $b=0.932244-0.213064I$	$10.21770-0.70258I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.249490 + 0.412649I$ $a = -0.296226 + 0.739253I$ $b = -0.761421 + 0.908298I$	$-1.24339 - 5.80177I$	0
$u = 1.249490 - 0.412649I$ $a = -0.296226 - 0.739253I$ $b = -0.761421 - 0.908298I$	$-1.24339 + 5.80177I$	0
$u = -0.419821 + 1.259760I$ $a = 0.352868 - 0.923914I$ $b = -1.35476 - 0.81270I$	$6.07589 + 3.79535I$	0
$u = -0.419821 - 1.259760I$ $a = 0.352868 + 0.923914I$ $b = -1.35476 + 0.81270I$	$6.07589 - 3.79535I$	0
$u = -0.503298 + 0.443010I$ $a = -1.091320 + 0.888213I$ $b = 1.012330 + 0.825407I$	$-1.12823 - 3.35588I$	0
$u = -0.503298 - 0.443010I$ $a = -1.091320 - 0.888213I$ $b = 1.012330 - 0.825407I$	$-1.12823 + 3.35588I$	0
$u = 0.111752 + 1.335660I$ $a = -0.325930 - 0.429744I$ $b = -0.158050 - 0.467323I$	$3.71292 - 5.38315I$	0
$u = 0.111752 - 1.335660I$ $a = -0.325930 + 0.429744I$ $b = -0.158050 + 0.467323I$	$3.71292 + 5.38315I$	0
$u = 0.310430 + 1.304300I$ $a = -0.107477 - 0.196035I$ $b = 1.112300 + 0.219170I$	$3.74861 - 1.88856I$	0
$u = 0.310430 - 1.304300I$ $a = -0.107477 + 0.196035I$ $b = 1.112300 - 0.219170I$	$3.74861 + 1.88856I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.249403 + 1.318280I$ $a = -1.136310 - 0.515109I$ $b = 0.559022 - 0.095457I$	$3.93321 - 2.95145I$	0
$u = 0.249403 - 1.318280I$ $a = -1.136310 + 0.515109I$ $b = 0.559022 + 0.095457I$	$3.93321 + 2.95145I$	0
$u = -0.371051 + 1.295890I$ $a = 0.488274 - 1.219960I$ $b = -0.733428 - 0.994335I$	$3.06321 + 12.23260I$	0
$u = -0.371051 - 1.295890I$ $a = 0.488274 + 1.219960I$ $b = -0.733428 + 0.994335I$	$3.06321 - 12.23260I$	0
$u = 0.687106 + 1.169020I$ $a = -0.174144 - 1.148920I$ $b = 1.019620 - 0.829064I$	$1.90151 - 9.52570I$	0
$u = 0.687106 - 1.169020I$ $a = -0.174144 + 1.148920I$ $b = 1.019620 + 0.829064I$	$1.90151 + 9.52570I$	0
$u = 1.359520 + 0.110079I$ $a = 0.347257 - 0.613452I$ $b = 0.706107 - 0.789411I$	$-1.78690 - 3.08668I$	0
$u = 1.359520 - 0.110079I$ $a = 0.347257 + 0.613452I$ $b = 0.706107 + 0.789411I$	$-1.78690 + 3.08668I$	0
$u = 0.627714$ $a = -3.33918$ $b = 0.386685$	0.241205	179.430
$u = 1.133610 + 0.776372I$ $a = -0.626737 + 0.007368I$ $b = -0.597815 - 0.288051I$	$0.218432 - 0.873581I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.133610 - 0.776372I$ $a = -0.626737 - 0.007368I$ $b = -0.597815 + 0.288051I$	$0.218432 + 0.873581I$	0
$u = -0.584550 + 0.199271I$ $a = 1.54460 - 1.20970I$ $b = 0.482623 - 0.743886I$	$-4.36629 - 2.10998I$	0
$u = -0.584550 - 0.199271I$ $a = 1.54460 + 1.20970I$ $b = 0.482623 + 0.743886I$	$-4.36629 + 2.10998I$	0
$u = -0.414360 + 1.328310I$ $a = 0.504079 - 1.110790I$ $b = -1.29593 - 0.90694I$	$8.48134 + 9.52303I$	0
$u = -0.414360 - 1.328310I$ $a = 0.504079 + 1.110790I$ $b = -1.29593 + 0.90694I$	$8.48134 - 9.52303I$	0
$u = 0.164196 + 1.387100I$ $a = -0.441610 - 0.827845I$ $b = 1.39023 - 1.12596I$	$9.9531 - 10.5511I$	0
$u = 0.164196 - 1.387100I$ $a = -0.441610 + 0.827845I$ $b = 1.39023 + 1.12596I$	$9.9531 + 10.5511I$	0
$u = 0.51246 + 1.31861I$ $a = 0.478273 + 0.862190I$ $b = -1.44947 + 0.88962I$	$3.45364 - 8.58657I$	0
$u = 0.51246 - 1.31861I$ $a = 0.478273 - 0.862190I$ $b = -1.44947 - 0.88962I$	$3.45364 + 8.58657I$	0
$u = 0.566834 + 0.136008I$ $a = -0.62442 + 1.87551I$ $b = -1.181130 + 0.422491I$	$2.32349 - 6.18138I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.566834 - 0.136008I$ $a = -0.62442 - 1.87551I$ $b = -1.181130 - 0.422491I$	$2.32349 + 6.18138I$	0
$u = 0.37971 + 1.37220I$ $a = 0.724553 + 1.125490I$ $b = -1.275300 + 0.597078I$	$7.13476 - 10.02640I$	0
$u = 0.37971 - 1.37220I$ $a = 0.724553 - 1.125490I$ $b = -1.275300 - 0.597078I$	$7.13476 + 10.02640I$	0
$u = -0.59887 + 1.31408I$ $a = -0.173663 + 0.859349I$ $b = 1.29488 + 0.85398I$	$8.67735 + 9.45526I$	0
$u = -0.59887 - 1.31408I$ $a = -0.173663 - 0.859349I$ $b = 1.29488 - 0.85398I$	$8.67735 - 9.45526I$	0
$u = 0.19008 + 1.44245I$ $a = -0.678634 - 0.066541I$ $b = 0.635592 - 0.058737I$	$3.88138 - 2.92101I$	0
$u = 0.19008 - 1.44245I$ $a = -0.678634 + 0.066541I$ $b = 0.635592 + 0.058737I$	$3.88138 + 2.92101I$	0
$u = -0.64171 + 1.30837I$ $a = -0.198924 - 0.789627I$ $b = -0.927556 - 0.150753I$	$4.40115 + 6.19644I$	0
$u = -0.64171 - 1.30837I$ $a = -0.198924 + 0.789627I$ $b = -0.927556 + 0.150753I$	$4.40115 - 6.19644I$	0
$u = -0.00861 + 1.47835I$ $a = 0.991189 + 0.407202I$ $b = -1.011110 + 0.122065I$	$9.11612 - 6.32148I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.00861-1.47835I$ $a=\ \ 0.991189-0.407202I$ $b=-1.011110-0.122065I$	$9.11612+6.32148I$	0
$u=-0.54356+1.37585I$ $a=-0.406851+1.055130I$ $b=\ \ 1.31426+0.92789I$	$3.1155+15.5084I$	0
$u=-0.54356-1.37585I$ $a=-0.406851-1.055130I$ $b=\ \ 1.31426-0.92789I$	$3.1155-15.5084I$	0
$u=-0.34449+1.43929I$ $a=-0.380697+0.745454I$ $b=\ \ 1.42789+0.86979I$	$10.77380-0.16755I$	0
$u=-0.34449-1.43929I$ $a=-0.380697-0.745454I$ $b=\ \ 1.42789-0.86979I$	$10.77380+0.16755I$	0
$u=\ \ 0.45816+1.41584I$ $a=-0.522926-0.736634I$ $b=\ \ 0.843719-0.757826I$	$3.22490-6.64831I$	0
$u=\ \ 0.45816-1.41584I$ $a=-0.522926+0.736634I$ $b=\ \ 0.843719+0.757826I$	$3.22490+6.64831I$	0
$u=\ \ 0.56687+1.38990I$ $a=-0.403015-1.001990I$ $b=\ \ 1.21828-0.84611I$	$2.73503-9.54398I$	0
$u=\ \ 0.56687-1.38990I$ $a=-0.403015+1.001990I$ $b=\ \ 1.21828+0.84611I$	$2.73503+9.54398I$	0
$u=\ \ 0.38030+1.46882I$ $a=\ \ 0.597434+0.777751I$ $b=-0.601519+0.163654I$	$5.49880-4.45808I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.38030 - 1.46882I$ $a = \quad 0.597434 - 0.777751I$ $b = -0.601519 - 0.163654I$	$5.49880 + 4.45808I$	0
$u = -0.061705 + 0.459771I$ $a = -0.20987 - 1.60716I$ $b = -0.931820 - 0.438788I$	$1.370730 + 0.083105I$	$7.54495 + 1.39802I$
$u = -0.061705 - 0.459771I$ $a = -0.20987 + 1.60716I$ $b = -0.931820 + 0.438788I$	$1.370730 - 0.083105I$	$7.54495 - 1.39802I$
$u = \quad 0.55974 + 1.44323I$ $a = -0.551520 - 0.863441I$ $b = \quad 1.43343 - 0.77859I$	$4.29975 - 10.91780I$	0
$u = \quad 0.55974 - 1.44323I$ $a = -0.551520 + 0.863441I$ $b = \quad 1.43343 + 0.77859I$	$4.29975 + 10.91780I$	0
$u = -0.56303 + 1.44929I$ $a = \quad 0.408568 - 1.003600I$ $b = -1.32486 - 0.93339I$	$7.1044 + 21.6046I$	0
$u = -0.56303 - 1.44929I$ $a = \quad 0.408568 + 1.003600I$ $b = -1.32486 + 0.93339I$	$7.1044 - 21.6046I$	0
$u = \quad 0.12476 + 1.55055I$ $a = \quad 0.163822 + 0.296060I$ $b = -1.013190 + 0.320505I$	$9.27004 - 5.07834I$	0
$u = \quad 0.12476 - 1.55055I$ $a = \quad 0.163822 - 0.296060I$ $b = -1.013190 - 0.320505I$	$9.27004 + 5.07834I$	0
$u = -0.66202 + 1.42996I$ $a = \quad 0.120331 + 0.736880I$ $b = \quad 0.884629 + 0.165263I$	$8.1688 + 12.4503I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.66202-1.42996I$ $a=\ \ 0.120331-0.736880I$ $b=\ \ 0.884629-0.165263I$	$8.1688-12.4503I$	0
$u=-1.02692+1.21373I$ $a=-0.324542-0.223718I$ $b=-0.693712+0.343245I$	$5.66531+0.43434I$	0
$u=-1.02692-1.21373I$ $a=-0.324542+0.223718I$ $b=-0.693712-0.343245I$	$5.66531-0.43434I$	0
$u=\ \ 0.54763+1.50190I$ $a=\ \ 0.017872+0.562589I$ $b=-0.523493+0.094720I$	$2.16214-2.12605I$	0
$u=\ \ 0.54763-1.50190I$ $a=\ \ 0.017872-0.562589I$ $b=-0.523493-0.094720I$	$2.16214+2.12605I$	0
$u=-0.391687+0.008956I$ $a=\ \ 0.39933+1.87492I$ $b=-0.678322+0.978301I$	$3.00334-0.88111I$	$2.85632-1.24669I$
$u=-0.391687-0.008956I$ $a=\ \ 0.39933-1.87492I$ $b=-0.678322-0.978301I$	$3.00334+0.88111I$	$2.85632+1.24669I$
$u=\ \ 0.53501+1.53323I$ $a=\ \ 0.377779+0.883765I$ $b=-1.25701+0.97456I$	$4.74847-12.12830I$	0
$u=\ \ 0.53501-1.53323I$ $a=\ \ 0.377779-0.883765I$ $b=-1.25701-0.97456I$	$4.74847+12.12830I$	0
$u=\ \ 0.177351+0.329925I$ $a=\ \ 2.53497-2.36908I$ $b=-0.538341-0.412115I$	$1.50904-0.78038I$	$3.07171-6.19401I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.177351 - 0.329925I$ $a = 2.53497 + 2.36908I$ $b = -0.538341 + 0.412115I$	$1.50904 + 0.78038I$	$3.07171 + 6.19401I$
$u = -0.216112 + 0.265127I$ $a = -2.00587 - 3.09987I$ $b = 0.783803 - 0.771644I$	$4.35306 - 9.97581I$	$5.77800 + 7.59464I$
$u = -0.216112 - 0.265127I$ $a = -2.00587 + 3.09987I$ $b = 0.783803 + 0.771644I$	$4.35306 + 9.97581I$	$5.77800 - 7.59464I$
$u = -0.20344 + 1.67456I$ $a = -0.147211 + 0.246053I$ $b = 0.635497 - 0.079837I$	$4.02948 - 3.02154I$	0
$u = -0.20344 - 1.67456I$ $a = -0.147211 - 0.246053I$ $b = 0.635497 + 0.079837I$	$4.02948 + 3.02154I$	0
$u = 0.38688 + 1.65180I$ $a = -0.180363 - 0.399760I$ $b = 0.474235 - 0.289735I$	$3.90945 - 5.67294I$	0
$u = 0.38688 - 1.65180I$ $a = -0.180363 + 0.399760I$ $b = 0.474235 + 0.289735I$	$3.90945 + 5.67294I$	0
$u = 0.163849 + 0.246118I$ $a = -1.90561 + 3.02548I$ $b = -0.723585 + 0.817225I$	$0.61034 - 4.87780I$	$1.48179 + 5.13755I$
$u = 0.163849 - 0.246118I$ $a = -1.90561 - 3.02548I$ $b = -0.723585 - 0.817225I$	$0.61034 + 4.87780I$	$1.48179 - 5.13755I$
$u = -0.039210 + 0.276472I$ $a = -2.14051 - 2.78508I$ $b = 0.544857 + 0.722370I$	$4.46809 - 0.07190I$	$6.31548 - 4.82870I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.039210-0.276472I$ $a=-2.14051+2.78508I$ $b=\ \ 0.544857-0.722370I$	$4.46809+0.07190I$	$6.31548+4.82870I$
$u=\ \ 0.0953267$ $a=\ \ 6.70220$ $b=-0.927998$	1.18727	10.4460
$u=-0.78417+2.21763I$ $a=-0.0308177-0.1123120I$ $b=-0.484002+0.162739I$	$6.66775-6.66796I$	0
$u=-0.78417-2.21763I$ $a=-0.0308177+0.1123120I$ $b=-0.484002-0.162739I$	$6.66775+6.66796I$	0

II. $I_2^u = \langle -1.54\times 10^{49}u^{46} + 1.60\times 10^{50}u^{45} + \cdots + 5.92\times 10^{49}b - 1.65\times 10^{50},\ -6.13\times 10^{50}u^{46} + 7.39\times 10^{51}u^{45} + \cdots + 5.92\times 10^{49}a - 1.45\times 10^{52},\ u^{47} - 12u^{46} + \cdots + 58u - 1\rangle$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 10.3650u^{46} - 124.934u^{45} + \cdots - 8469.72u + 244.470 \\ 0.260298u^{46} - 2.70954u^{45} + \cdots - 42.2900u + 2.79158 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 6.96405u^{46} - 83.3669u^{45} + \cdots - 4619.86u + 101.754 \\ 0.837377u^{46} - 9.57867u^{45} + \cdots - 410.126u + 11.8220 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 10.1047u^{46} - 122.224u^{45} + \cdots - 8427.43u + 241.678 \\ 0.260298u^{46} - 2.70954u^{45} + \cdots - 42.2900u + 2.79158 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 2.43023u^{46} - 29.2507u^{45} + \cdots - 452.101u - 28.8720 \\ 0.199823u^{46} - 1.55931u^{45} + \cdots - 489.511u + 13.5169 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -14.4700u^{46} + 175.815u^{45} + \cdots + 10547.5u - 320.107 \\ 0.750557u^{46} - 9.31605u^{45} + \cdots - 167.898u + 2.63005 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 9.94727u^{46} - 120.193u^{45} + \cdots - 8475.99u + 244.414 \\ 0.327701u^{46} - 3.54718u^{45} + \cdots - 33.1913u + 2.46332 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -24.0060u^{46} + 286.388u^{45} + \cdots + 19622.2u - 535.853 \\ -1.39343u^{46} + 18.2444u^{45} + \cdots + 598.322u - 18.3564 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -11.4878u^{46} + 136.476u^{45} + \cdots + 10959.6u - 345.678 \\ 0.804090u^{46} - 8.43849u^{45} + \cdots - 223.996u + 4.82130 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4.84723u^{46} + 56.9310u^{45} + \cdots + 2542.88u - 71.0342$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{47} - 4u^{46} + \cdots - 18u - 4$
c_2	$u^{47} + u^{46} + \cdots - 3u + 1$
c_3	$u^{47} - 50u^{43} + \cdots - 4u + 1$
c_4	$u^{47} - 2u^{46} + \cdots + 10u + 1$
c_5	$u^{47} + u^{45} + \cdots - 140u + 31$
c_6	$u^{47} - u^{46} + \cdots - 3u - 1$
c_7	$u^{47} - 4u^{46} + \cdots + 25u + 1$
c_8	$u^{47} - 12u^{46} + \cdots + 58u - 1$
c_9	$u^{47} - u^{46} + \cdots + u - 1$
c_{10}	$u^{47} - 3u^{46} + \cdots - 3u + 1$
c_{11}	$u^{47} + 12u^{46} + \cdots + 58u + 1$
c_{12}	$u^{47} - 2u^{46} + \cdots - 9u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{47} + 2y^{46} + \cdots + 92y - 16$
c_2, c_6	$y^{47} - 29y^{46} + \cdots + 19y - 1$
c_3	$y^{47} - 100y^{45} + \cdots - 48y - 1$
c_4	$y^{47} - 12y^{46} + \cdots + 48y - 1$
c_5	$y^{47} + 2y^{46} + \cdots - 7990y - 961$
c_7	$y^{47} + 8y^{46} + \cdots + 127y - 1$
c_8, c_{11}	$y^{47} + 42y^{46} + \cdots + 1024y - 1$
c_9	$y^{47} + 47y^{46} + \cdots - 39y - 1$
c_{10}	$y^{47} + 17y^{46} + \cdots + 27y - 1$
c_{12}	$y^{47} - 18y^{46} + \cdots + 3y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.534049 + 0.833234I$ $a = 0.320627 - 0.365512I$ $b = -1.67928 - 1.41256I$	$1.26350 - 2.16340I$	0
$u = 0.534049 - 0.833234I$ $a = 0.320627 + 0.365512I$ $b = -1.67928 + 1.41256I$	$1.26350 + 2.16340I$	0
$u = -0.258667 + 0.983308I$ $a = 0.435924 + 1.270710I$ $b = 0.394765 + 0.943600I$	$1.53014 + 5.85561I$	0
$u = -0.258667 - 0.983308I$ $a = 0.435924 - 1.270710I$ $b = 0.394765 - 0.943600I$	$1.53014 - 5.85561I$	0
$u = -0.118334 + 1.011640I$ $a = -0.870962 + 0.758854I$ $b = 1.75515 + 0.61712I$	$4.20236 + 6.07390I$	0
$u = -0.118334 - 1.011640I$ $a = -0.870962 - 0.758854I$ $b = 1.75515 - 0.61712I$	$4.20236 - 6.07390I$	0
$u = -0.444719 + 0.852802I$ $a = 0.148478 - 0.422917I$ $b = -0.597224 + 0.801204I$	$4.90066 + 1.02014I$	0
$u = -0.444719 - 0.852802I$ $a = 0.148478 + 0.422917I$ $b = -0.597224 - 0.801204I$	$4.90066 - 1.02014I$	0
$u = -0.093741 + 1.045320I$ $a = 0.34305 - 2.21818I$ $b = -0.693426 - 0.247834I$	$8.50396 + 0.43867I$	0
$u = -0.093741 - 1.045320I$ $a = 0.34305 + 2.21818I$ $b = -0.693426 + 0.247834I$	$8.50396 - 0.43867I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.927970 + 0.513660I$ $a = 0.595604 + 0.249765I$ $b = 0.243177 - 0.106938I$	$-0.04997 - 1.54327I$	0
$u = 0.927970 - 0.513660I$ $a = 0.595604 - 0.249765I$ $b = 0.243177 + 0.106938I$	$-0.04997 + 1.54327I$	0
$u = 0.344738 + 1.048830I$ $a = -0.35400 + 1.73187I$ $b = -0.856807 + 0.198206I$	$8.98322 - 1.41917I$	0
$u = 0.344738 - 1.048830I$ $a = -0.35400 - 1.73187I$ $b = -0.856807 - 0.198206I$	$8.98322 + 1.41917I$	0
$u = -0.386684 + 1.081490I$ $a = -0.347725 - 0.989252I$ $b = -0.344889 - 1.080460I$	$5.45236 + 11.94070I$	0
$u = -0.386684 - 1.081490I$ $a = -0.347725 + 0.989252I$ $b = -0.344889 + 1.080460I$	$5.45236 - 11.94070I$	0
$u = -0.025208 + 1.162490I$ $a = -0.043845 - 0.967961I$ $b = -0.38751 - 1.56423I$	$6.77755 + 0.15008I$	0
$u = -0.025208 - 1.162490I$ $a = -0.043845 + 0.967961I$ $b = -0.38751 + 1.56423I$	$6.77755 - 0.15008I$	0
$u = 0.293256 + 1.153770I$ $a = 0.620348 + 1.253600I$ $b = -0.92199 + 1.08251I$	$-1.33501 - 5.31999I$	0
$u = 0.293256 - 1.153770I$ $a = 0.620348 - 1.253600I$ $b = -0.92199 - 1.08251I$	$-1.33501 + 5.31999I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.624381 + 1.022350I$ $a = 0.097034 - 0.402158I$ $b = 0.321071 - 1.037770I$	$0.58470 - 2.09304I$	0
$u = 0.624381 - 1.022350I$ $a = 0.097034 + 0.402158I$ $b = 0.321071 + 1.037770I$	$0.58470 + 2.09304I$	0
$u = 1.074440 + 0.634726I$ $a = 0.051733 - 0.733301I$ $b = 1.010200 - 0.975411I$	$0.22880 - 5.39152I$	0
$u = 1.074440 - 0.634726I$ $a = 0.051733 + 0.733301I$ $b = 1.010200 + 0.975411I$	$0.22880 + 5.39152I$	0
$u = -0.177091 + 1.268550I$ $a = 0.069550 + 0.339557I$ $b = 0.981842 + 0.065353I$	$4.63133 - 4.58486I$	0
$u = -0.177091 - 1.268550I$ $a = 0.069550 - 0.339557I$ $b = 0.981842 - 0.065353I$	$4.63133 + 4.58486I$	0
$u = 0.230407 + 1.267340I$ $a = -1.48175 + 0.71376I$ $b = 0.588341 + 0.156913I$	$4.15874 - 3.10287I$	0
$u = 0.230407 - 1.267340I$ $a = -1.48175 - 0.71376I$ $b = 0.588341 - 0.156913I$	$4.15874 + 3.10287I$	0
$u = 0.549471 + 0.330953I$ $a = -1.62062 - 0.77428I$ $b = -0.642120 - 0.716574I$	$-3.90509 + 2.04602I$	$9.3993 - 11.6781I$
$u = 0.549471 - 0.330953I$ $a = -1.62062 + 0.77428I$ $b = -0.642120 + 0.716574I$	$-3.90509 - 2.04602I$	$9.3993 + 11.6781I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 0.625205$ $a = -2.66249$ $b = \ 0.473018$	0.206288	-66.4260
$u = \ 1.380870 + 0.184957I$ $a = -0.262796 + 0.565309I$ $b = -0.802715 + 0.918247I$	$-0.78309 - 3.58958I$	0
$u = \ 1.380870 - 0.184957I$ $a = -0.262796 - 0.565309I$ $b = -0.802715 - 0.918247I$	$-0.78309 + 3.58958I$	0
$u = \ 0.239130 + 0.538558I$ $a = \ 1.19781 + 0.97004I$ $b = -1.40550 + 0.59287I$	$-2.67696 - 2.12478I$	$-6.99504 + 4.06773I$
$u = \ 0.239130 - 0.538558I$ $a = \ 1.19781 - 0.97004I$ $b = -1.40550 - 0.59287I$	$-2.67696 + 2.12478I$	$-6.99504 - 4.06773I$
$u = \ 0.37853 + 1.38363I$ $a = -0.652867 - 1.009510I$ $b = \ 1.27979 - 0.73932I$	$6.19564 - 9.72611I$	0
$u = \ 0.37853 - 1.38363I$ $a = -0.652867 + 1.009510I$ $b = \ 1.27979 + 0.73932I$	$6.19564 + 9.72611I$	0
$u = \ 0.13969 + 1.52880I$ $a = -0.604899 - 0.151146I$ $b = \ 0.574091 - 0.138194I$	$3.66278 - 3.26269I$	0
$u = \ 0.13969 - 1.52880I$ $a = -0.604899 + 0.151146I$ $b = \ 0.574091 + 0.138194I$	$3.66278 + 3.26269I$	0
$u = \ 0.57586 + 1.43387I$ $a = \ 0.447717 + 0.881036I$ $b = -1.36032 + 0.85104I$	$4.16495 - 10.16420I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.57586 - 1.43387I$ $a = 0.447717 - 0.881036I$ $b = -1.36032 - 0.85104I$	$4.16495 + 10.16420I$	0
$u = 0.42588 + 1.57362I$ $a = -0.292379 - 0.443719I$ $b = 0.617815 - 0.097581I$	$3.62164 - 3.32385I$	0
$u = 0.42588 - 1.57362I$ $a = -0.292379 + 0.443719I$ $b = 0.617815 + 0.097581I$	$3.62164 + 3.32385I$	0
$u = 0.0418232 + 0.0074767I$ $a = 3.8926 - 26.4885I$ $b = 1.110350 - 0.271330I$	$0.73332 - 6.71138I$	$-0.06568 + 7.58038I$
$u = 0.0418232 - 0.0074767I$ $a = 3.8926 + 26.4885I$ $b = 1.110350 + 0.271330I$	$0.73332 + 6.71138I$	$-0.06568 - 7.58038I$
$u = -0.56866 + 2.06832I$ $a = 0.142605 - 0.067571I$ $b = -0.421313 + 0.220937I$	$6.49366 - 6.65618I$	0
$u = -0.56866 - 2.06832I$ $a = 0.142605 + 0.067571I$ $b = -0.421313 - 0.220937I$	$6.49366 + 6.65618I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{47}-4u^{46}+\cdots-18u-4)$ $\cdot(u^{194}-15u^{193}+\cdots+4276480u-140732)$
c_2	$(u^{47}+u^{46}+\cdots-3u+1)(u^{194}-2u^{193}+\cdots-115u+763)$
c_3	$(u^{47}-50u^{43}+\cdots-4u+1)$ $\cdot(u^{194}-3u^{193}+\cdots+10121514u-2950781)$
c_4	$(u^{47}-2u^{46}+\cdots+10u+1)(u^{194}-5u^{193}+\cdots-1229250u-450361)$
c_5	$(u^{47}+u^{45}+\cdots-140u+31)$ $\cdot(u^{194}-3u^{193}+\cdots+1930268u-110863)$
c_6	$(u^{47}-u^{46}+\cdots-3u-1)(u^{194}-2u^{193}+\cdots-115u+763)$
c_7	$(u^{47}-4u^{46}+\cdots+25u+1)(u^{194}+3u^{193}+\cdots+39u+1)$
c_8	$(u^{47}-12u^{46}+\cdots+58u-1)$ $\cdot(u^{194}+5u^{193}+\cdots+1119128u+157651)$
c_9	$(u^{47}-u^{46}+\cdots+u-1)(u^{194}-2u^{193}+\cdots+2.94470\times10^{7}u-7136263)$
c_{10}	$(u^{47}-3u^{46}+\cdots-3u+1)(u^{194}-6u^{193}+\cdots-4089433u+368299)$
c_{11}	$(u^{47}+12u^{46}+\cdots+58u+1)$ $\cdot(u^{194}+5u^{193}+\cdots+1119128u+157651)$
c_{12}	$(u^{47}-2u^{46}+\cdots-9u-1)(u^{194}-3u^{193}+\cdots-1779u-187)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{47}+2y^{46}+\cdots+92y-16)$ $\cdot(y^{194}+57y^{193}+\cdots+9871873955280y+19805495824)$
c_2, c_6	$(y^{47}-29y^{46}+\cdots+19y-1)$ $\cdot(y^{194}-122y^{193}+\cdots-27508693y+582169)$
c_3	$(y^{47}-100y^{45}+\cdots-48y-1)$ $\cdot(y^{194}+43y^{193}+\cdots-281074639663414y+8707108509961)$
c_4	$(y^{47}-12y^{46}+\cdots+48y-1)$ $\cdot(y^{194}-49y^{193}+\cdots-4233488708222y+202825030321)$
c_5	$(y^{47}+2y^{46}+\cdots-7990y-961)$ $\cdot(y^{194}+9y^{193}+\cdots-1148717911644y+12290604769)$
c_7	$(y^{47}+8y^{46}+\cdots+127y-1)(y^{194}+11y^{193}+\cdots-137y+1)$
c_8, c_{11}	$(y^{47}+42y^{46}+\cdots+1024y-1)$ $\cdot(y^{194}+145y^{193}+\cdots-983610590218y+24853837801)$
c_9	$(y^{47}+47y^{46}+\cdots-39y-1)$ $\cdot(y^{194}+70y^{193}+\cdots+2458572666392573y+50926249605169)$
c_{10}	$(y^{47}+17y^{46}+\cdots+27y-1)$ $\cdot(y^{194}-20y^{193}+\cdots-11280170985833y+135644153401)$
c_{12}	$(y^{47}-18y^{46}+\cdots+3y-1)(y^{194}-31y^{193}+\cdots-837813y+34969)$