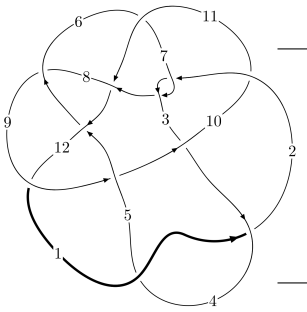
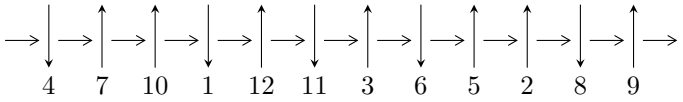
$12a_{1096}$ $(K12a_{1096})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 1.80914 \times 10^{961} u^{171} + 1.79843 \times 10^{961} u^{170} + \cdots + 7.62520 \times 10^{962} b - 2.39787 \times 10^{966},$$
$$- 2.31980 \times 10^{966} u^{171} - 1.92030 \times 10^{966} u^{170} + \cdots + 6.27020 \times 10^{966} a + 1.72930 \times 10^{971},$$
$$u^{172} - 50u^{170} + \cdots + 24120u + 74007 \rangle$$
$$I_2^u = \langle -5.15815 \times 10^{26} u^{36} + 2.11275 \times 10^{26} u^{35} + \cdots + 4.28196 \times 10^{25} b - 7.24553 \times 10^{26},$$
$$- 1.49365 \times 10^{27} u^{36} + 8.00234 \times 10^{26} u^{35} + \cdots + 4.28196 \times 10^{25} a - 3.46005 \times 10^{27},\ u^{37} - u^{36} + \cdots + 4u -$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 209 representations.

[1]The image of knot diagram is generated by the software "**Draw programme**" developed by Andrew Bartholomew(`http://www.layer8.co.uk/maths/draw/index.htm#Running-draw`), where we modified some parts for our purpose(`https://github.com/CATsTAILs/LinksPainter`).

[2]All coefficients of polynomials are rational numbers. But the coefficients are sometimes approximated in decimal forms when there is not enough margin.

I. $\boldsymbol{I_1^u = \langle 1.81 \times 10^{961} u^{171} + 1.80 \times 10^{961} u^{170} + \cdots + 7.63 \times 10^{962} b - 2.40 \times 10^{966},\ -2.32 \times 10^{966} u^{171} - 1.92 \times 10^{966} u^{170} + \cdots + 6.27 \times 10^{966} a + 1.73 \times 10^{971},\ u^{172} - 50 u^{170} + \cdots + 24120 u + 74007 \rangle}$

(i) Arc colorings

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

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

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

$$a_{11} = \begin{pmatrix} 0.369973 u^{171} + 0.306258 u^{170} + \cdots - 41770.3 u - 27579.6 \\ -0.0237258 u^{171} - 0.0235853 u^{170} + \cdots + 2274.90 u + 3144.67 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.0801750 u^{171} + 0.0701081 u^{170} + \cdots - 9277.69 u - 8058.99 \\ 0.214417 u^{171} + 0.185788 u^{170} + \cdots - 24868.1 u - 14332.1 \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} -0.116749 u^{171} - 0.0884275 u^{170} + \cdots + 10576.9 u + 6108.56 \\ 0.00487777 u^{171} - 0.00935276 u^{170} + \cdots + 2795.37 u + 3971.83 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.206611 u^{171} - 0.296700 u^{170} + \cdots + 15684.9 u + 19751.0 \\ 0.218769 u^{171} + 0.274949 u^{170} + \cdots - 19308.1 u - 19958.5 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.0142311 u^{171} + 0.0188741 u^{170} + \cdots - 3030.69 u - 2555.15 \\ 0.368988 u^{171} + 0.357759 u^{170} + \cdots - 39066.5 u - 28688.6 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.0859178 u^{171} + 0.0620963 u^{170} + \cdots - 9327.55 u - 6659.80 \\ 0.260329 u^{171} + 0.220577 u^{170} + \cdots - 30167.9 u - 17775.1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.0430210 u^{171} - 0.0850699 u^{170} + \cdots + 2192.62 u + 4621.27 \\ -0.0662657 u^{171} - 0.0164058 u^{170} + \cdots + 10891.5 u + 5135.15 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.143934 u^{171} + 0.138978 u^{170} + \cdots - 13771.4 u - 11391.8 \\ 0.0192585 u^{171} + 0.00519459 u^{170} + \cdots - 2742.25 u + 179.012 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.0528030 u^{171} + 0.682581 u^{170} + \cdots - 15889.4 u - 58849.8$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{172} - 9u^{171} + \cdots - 100u + 1$
c_2, c_7	$u^{172} - 50u^{170} + \cdots - 24120u + 74007$
c_3	$u^{172} + 7u^{171} + \cdots - 919920u - 65828$
c_5	$u^{172} - 7u^{171} + \cdots + 10616u - 167$
c_6	$u^{172} - 7u^{171} + \cdots - 87748249u - 53910283$
c_8	$u^{172} - 19u^{171} + \cdots + 285466u - 10697$
c_9	$u^{172} - 11u^{171} + \cdots - 160u - 7$
c_{10}	$u^{172} - 7u^{171} + \cdots + 503175069u - 16162283$
c_{11}	$u^{172} - 4u^{171} + \cdots + 77660u - 9916$
c_{12}	$u^{172} - 18u^{170} + \cdots + 1012767u + 106551$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{172} + 127y^{171} + \cdots - 3840y + 1$
c_2, c_7	$y^{172} - 100y^{171} + \cdots - 159358760424y + 5477036049$
c_3	$y^{172} - 23y^{171} + \cdots + 56985557264y + 4333325584$
c_5	$y^{172} + 9y^{171} + \cdots - 70838234y + 27889$
c_6	$y^{172} + 47y^{171} + \cdots + 2003456514376098053y + 2906318613140089$
c_8	$y^{172} + 37y^{171} + \cdots + 5944665142y + 114425809$
c_9	$y^{172} - 21y^{171} + \cdots - 3648y + 49$
c_{10}	$y^{172} - 53y^{171} + \cdots - 88286474877028847y + 261219391772089$
c_{11}	$y^{172} - 12y^{171} + \cdots - 3415353792y + 98327056$
c_{12}	$y^{172} - 36y^{171} + \cdots - 1103499684081y + 11353115601$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.964700+0.292936I$ $a=\ \ 0.975586+0.348053I$ $b=-2.03350+0.07508I$	$2.75116-11.23960I$	0
$u=-0.964700-0.292936I$ $a=\ \ 0.975586-0.348053I$ $b=-2.03350-0.07508I$	$2.75116+11.23960I$	0
$u=-0.963724+0.227184I$ $a=-0.72179-2.61850I$ $b=\ \ 0.461935+0.786477I$	$-0.66871-6.23689I$	0
$u=-0.963724-0.227184I$ $a=-0.72179+2.61850I$ $b=\ \ 0.461935-0.786477I$	$-0.66871+6.23689I$	0
$u=-0.954904+0.236922I$ $a=\ \ 0.46983+2.19175I$ $b=-0.072423-1.127430I$	$-0.89758-1.41134I$	0
$u=-0.954904-0.236922I$ $a=\ \ 0.46983-2.19175I$ $b=-0.072423+1.127430I$	$-0.89758+1.41134I$	0
$u=\ \ 0.978570+0.079158I$ $a=-1.22031+1.55246I$ $b=-0.398043-0.997722I$	$6.95288+0.33712I$	0
$u=\ \ 0.978570-0.079158I$ $a=-1.22031-1.55246I$ $b=-0.398043+0.997722I$	$6.95288-0.33712I$	0
$u=\ \ 0.817320+0.541096I$ $a=-0.002993-1.051400I$ $b=\ \ 0.338375+0.341192I$	$-3.13276+2.18455I$	0
$u=\ \ 0.817320-0.541096I$ $a=-0.002993+1.051400I$ $b=\ \ 0.338375-0.341192I$	$-3.13276-2.18455I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.920977+0.328617I$ $a=\ \ 0.24862-2.48894I$ $b=\ \ 1.17628+1.16599I$	$3.09198-2.40359I$	0
$u=-0.920977-0.328617I$ $a=\ \ 0.24862+2.48894I$ $b=\ \ 1.17628-1.16599I$	$3.09198+2.40359I$	0
$u=-0.875584+0.426153I$ $a=\ \ 0.35185+2.28506I$ $b=-1.77192-0.47812I$	$3.21409-1.23569I$	0
$u=-0.875584-0.426153I$ $a=\ \ 0.35185-2.28506I$ $b=-1.77192+0.47812I$	$3.21409+1.23569I$	0
$u=\ \ 1.022970+0.082774I$ $a=\ \ 2.55671-4.44659I$ $b=-2.44884+4.07782I$	$5.06247+0.18677I$	0
$u=\ \ 1.022970-0.082774I$ $a=\ \ 2.55671+4.44659I$ $b=-2.44884-4.07782I$	$5.06247-0.18677I$	0
$u=-0.862990+0.421595I$ $a=\ \ 0.02548-2.91685I$ $b=\ \ 2.18244+1.13167I$	$3.04420-2.37891I$	0
$u=-0.862990-0.421595I$ $a=\ \ 0.02548+2.91685I$ $b=\ \ 2.18244-1.13167I$	$3.04420+2.37891I$	0
$u=\ \ 0.875550+0.392754I$ $a=\ \ 0.786018-0.096425I$ $b=-1.51763-0.22252I$	$-2.17919+7.01592I$	0
$u=\ \ 0.875550-0.392754I$ $a=\ \ 0.786018+0.096425I$ $b=-1.51763+0.22252I$	$-2.17919-7.01592I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.172939+0.941887I$ $a=-0.064330-0.189557I$ $b=\ \ 0.572184-1.130890I$	$5.89144+6.63249I$	0
$u=-0.172939-0.941887I$ $a=-0.064330+0.189557I$ $b=\ \ 0.572184+1.130890I$	$5.89144-6.63249I$	0
$u=-0.107387+1.036830I$ $a=\ \ 0.092726+0.492378I$ $b=-0.596190+0.404651I$	$0.49611+6.13968I$	0
$u=-0.107387-1.036830I$ $a=\ \ 0.092726-0.492378I$ $b=-0.596190-0.404651I$	$0.49611-6.13968I$	0
$u=\ \ 0.793137+0.533960I$ $a=\ \ 3.19346-0.78504I$ $b=-2.04681-2.58728I$	$3.49762+2.24763I$	0
$u=\ \ 0.793137-0.533960I$ $a=\ \ 3.19346+0.78504I$ $b=-2.04681+2.58728I$	$3.49762-2.24763I$	0
$u=-1.024410+0.239856I$ $a=-0.625377+0.524991I$ $b=\ \ 1.55133-0.60014I$	$1.10082-4.32017I$	0
$u=-1.024410-0.239856I$ $a=-0.625377-0.524991I$ $b=\ \ 1.55133+0.60014I$	$1.10082+4.32017I$	0
$u=\ \ 0.989545+0.375351I$ $a=-0.13531+2.44805I$ $b=\ \ 0.841861-0.882838I$	$2.33287+11.95800I$	0
$u=\ \ 0.989545-0.375351I$ $a=-0.13531-2.44805I$ $b=\ \ 0.841861+0.882838I$	$2.33287-11.95800I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.191349+0.921721I$ $a=\ \ 0.325367+0.296801I$ $b=-0.798596+1.093130I$	$5.15871+5.55476I$	0
$u=-0.191349-0.921721I$ $a=\ \ 0.325367-0.296801I$ $b=-0.798596-1.093130I$	$5.15871-5.55476I$	0
$u=-0.076399+0.931460I$ $a=\ \ 0.265746-0.158479I$ $b=-0.639497-0.764185I$	$0.51328-4.95208I$	0
$u=-0.076399-0.931460I$ $a=\ \ 0.265746+0.158479I$ $b=-0.639497+0.764185I$	$0.51328+4.95208I$	0
$u=\ \ 1.055090+0.196563I$ $a=-0.195584-0.828098I$ $b=-1.085730+0.203329I$	$4.06990+3.68396I$	0
$u=\ \ 1.055090-0.196563I$ $a=-0.195584+0.828098I$ $b=-1.085730-0.203329I$	$4.06990-3.68396I$	0
$u=\ \ 1.019260+0.336203I$ $a=\ \ 0.19413-2.10816I$ $b=-0.426830+0.794188I$	$0.08505+5.22252I$	0
$u=\ \ 1.019260-0.336203I$ $a=\ \ 0.19413+2.10816I$ $b=-0.426830-0.794188I$	$0.08505-5.22252I$	0
$u=-0.926804+0.543578I$ $a=\ \ 0.318142+1.178230I$ $b=-0.575167-0.096626I$	$1.14850-5.32375I$	0
$u=-0.926804-0.543578I$ $a=\ \ 0.318142-1.178230I$ $b=-0.575167+0.096626I$	$1.14850+5.32375I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.922533 + 0.030689I$ $a = -0.90945 + 2.70218I$ $b = 0.178466 - 0.609427I$	$3.12091 - 2.97083I$	0
$u = 0.922533 - 0.030689I$ $a = -0.90945 - 2.70218I$ $b = 0.178466 + 0.609427I$	$3.12091 + 2.97083I$	0
$u = 0.384419 + 1.028210I$ $a = 0.289827 - 0.257171I$ $b = -0.478982 - 0.471261I$	$-3.61770 - 1.57098I$	0
$u = 0.384419 - 1.028210I$ $a = 0.289827 + 0.257171I$ $b = -0.478982 + 0.471261I$	$-3.61770 + 1.57098I$	0
$u = -0.851953 + 0.692232I$ $a = 0.560991 - 0.374997I$ $b = -0.524833 + 0.438019I$	$0.98838 - 3.03345I$	0
$u = -0.851953 - 0.692232I$ $a = 0.560991 + 0.374997I$ $b = -0.524833 - 0.438019I$	$0.98838 + 3.03345I$	0
$u = -0.234705 + 1.078150I$ $a = -0.594100 + 0.368032I$ $b = 0.073000 - 1.086100I$	$4.56793 - 6.81801I$	0
$u = -0.234705 - 1.078150I$ $a = -0.594100 - 0.368032I$ $b = 0.073000 + 1.086100I$	$4.56793 + 6.81801I$	0
$u = 0.872907 + 0.153996I$ $a = -1.71422 + 0.93870I$ $b = 2.43501 - 0.14376I$	$3.83042 - 0.10224I$	0
$u = 0.872907 - 0.153996I$ $a = -1.71422 - 0.93870I$ $b = 2.43501 + 0.14376I$	$3.83042 + 0.10224I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.863990$ $a=-2.90275$ $b=\ \ 3.21456$	-0.389279	0
$u=\ \ 0.706838+0.483941I$ $a=-0.00231-1.60088I$ $b=-0.204006+0.555484I$	$-3.01818+1.93722I$	0
$u=\ \ 0.706838-0.483941I$ $a=-0.00231+1.60088I$ $b=-0.204006-0.555484I$	$-3.01818-1.93722I$	0
$u=\ \ 0.763136+0.389107I$ $a=-0.016397-0.289324I$ $b=\ \ 1.028330+0.054689I$	$-2.88525+1.77108I$	0
$u=\ \ 0.763136-0.389107I$ $a=-0.016397+0.289324I$ $b=\ \ 1.028330-0.054689I$	$-2.88525-1.77108I$	0
$u=-0.262892+1.122820I$ $a=-0.317959+0.190352I$ $b=\ \ 0.620283-1.000440I$	$-1.77198+8.65727I$	0
$u=-0.262892-1.122820I$ $a=-0.317959-0.190352I$ $b=\ \ 0.620283+1.000440I$	$-1.77198-8.65727I$	0
$u=-1.123670+0.292269I$ $a=\ \ 0.452417+1.320160I$ $b=-1.04168-0.96564I$	$1.75624-1.02826I$	0
$u=-1.123670-0.292269I$ $a=\ \ 0.452417-1.320160I$ $b=-1.04168+0.96564I$	$1.75624+1.02826I$	0
$u=\ \ 0.247179+1.146480I$ $a=-0.354117-0.020364I$ $b=\ \ 0.667944+1.130900I$	$3.7432-14.4462I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.247179 - 1.146480I$ $a = -0.354117 + 0.020364I$ $b = 0.667944 - 1.130900I$	$3.7432 + 14.4462I$	0
$u = -0.734054 + 0.920918I$ $a = 0.295683 - 0.200482I$ $b = -0.228363 + 0.507838I$	$0.35821 - 2.76036I$	0
$u = -0.734054 - 0.920918I$ $a = 0.295683 + 0.200482I$ $b = -0.228363 - 0.507838I$	$0.35821 + 2.76036I$	0
$u = 0.993002 + 0.649235I$ $a = -0.949053 - 0.856763I$ $b = -0.34801 + 1.48887I$	$2.04143 + 2.66005I$	0
$u = 0.993002 - 0.649235I$ $a = -0.949053 + 0.856763I$ $b = -0.34801 - 1.48887I$	$2.04143 - 2.66005I$	0
$u = 1.180530 + 0.207973I$ $a = -0.82274 - 1.22355I$ $b = -0.406322 + 0.880790I$	$5.26768 + 2.40234I$	0
$u = 1.180530 - 0.207973I$ $a = -0.82274 + 1.22355I$ $b = -0.406322 - 0.880790I$	$5.26768 - 2.40234I$	0
$u = -0.794646$ $a = 0.785338$ $b = -0.984600$	1.47413	0
$u = -0.759202 + 0.219056I$ $a = 0.207764 + 1.113070I$ $b = 0.947762 - 0.691845I$	$-1.54285 - 0.77077I$	0
$u = -0.759202 - 0.219056I$ $a = 0.207764 - 1.113070I$ $b = 0.947762 + 0.691845I$	$-1.54285 + 0.77077I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.761165 + 0.165324I$ $a = 0.86259 + 1.23546I$ $b = -0.327115 + 0.073352I$	$3.63716 - 2.40162I$	0
$u = 0.761165 - 0.165324I$ $a = 0.86259 - 1.23546I$ $b = -0.327115 - 0.073352I$	$3.63716 + 2.40162I$	0
$u = 0.406159 + 1.151580I$ $a = -0.322438 + 0.319443I$ $b = 0.0179030 + 0.0423138I$	$0.93286 + 6.43221I$	0
$u = 0.406159 - 1.151580I$ $a = -0.322438 - 0.319443I$ $b = 0.0179030 - 0.0423138I$	$0.93286 - 6.43221I$	0
$u = -0.748034 + 0.199528I$ $a = -0.310593 - 0.044034I$ $b = -1.170470 + 0.535341I$	$-1.38205 + 4.12662I$	0
$u = -0.748034 - 0.199528I$ $a = -0.310593 + 0.044034I$ $b = -1.170470 - 0.535341I$	$-1.38205 - 4.12662I$	0
$u = 0.616333 + 0.455268I$ $a = -0.19878 + 2.00161I$ $b = 0.783215 - 0.629072I$	$-2.87832 - 3.41524I$	0
$u = 0.616333 - 0.455268I$ $a = -0.19878 - 2.00161I$ $b = 0.783215 + 0.629072I$	$-2.87832 + 3.41524I$	0
$u = -1.202840 + 0.292535I$ $a = 1.36403 - 0.75728I$ $b = 0.253233 + 0.566737I$	$7.31974 - 3.48694I$	0
$u = -1.202840 - 0.292535I$ $a = 1.36403 + 0.75728I$ $b = 0.253233 - 0.566737I$	$7.31974 + 3.48694I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.413604+0.637867I$ $a=\ \ 0.321617-0.017591I$ $b=\ \ 1.042600+0.166683I$	$-0.221733+0.853474I$	0
$u=-0.413604-0.637867I$ $a=\ \ 0.321617+0.017591I$ $b=\ \ 1.042600-0.166683I$	$-0.221733-0.853474I$	0
$u=-1.172260+0.416264I$ $a=-0.934491+0.813732I$ $b=-0.546379-0.903178I$	$9.04792-4.11732I$	0
$u=-1.172260-0.416264I$ $a=-0.934491-0.813732I$ $b=-0.546379+0.903178I$	$9.04792+4.11732I$	0
$u=-0.663732+0.361188I$ $a=-1.19846-2.38131I$ $b=\ \ 1.106020+0.502190I$	$1.86992+8.36990I$	0
$u=-0.663732-0.361188I$ $a=-1.19846+2.38131I$ $b=\ \ 1.106020-0.502190I$	$1.86992-8.36990I$	0
$u=\ \ 0.378796+1.186580I$ $a=\ \ 0.192579+0.205960I$ $b=-0.317579+0.707096I$	$2.98236+5.30662I$	0
$u=\ \ 0.378796-1.186580I$ $a=\ \ 0.192579-0.205960I$ $b=-0.317579-0.707096I$	$2.98236-5.30662I$	0
$u=-1.097650+0.592715I$ $a=\ \ 0.537908-1.061220I$ $b=\ \ 0.301158+1.192340I$	$1.71572-2.82211I$	0
$u=-1.097650-0.592715I$ $a=\ \ 0.537908+1.061220I$ $b=\ \ 0.301158-1.192340I$	$1.71572+2.82211I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.568650 + 0.492527I$ $a = -0.029925 - 0.248759I$ $b = -1.28758 - 0.67294I$	$1.06014 - 8.37650I$	0
$u = 0.568650 - 0.492527I$ $a = -0.029925 + 0.248759I$ $b = -1.28758 + 0.67294I$	$1.06014 + 8.37650I$	0
$u = 0.128627 + 1.245240I$ $a = 0.212905 + 0.031597I$ $b = -0.486503 - 0.875009I$	$-0.13557 - 5.95186I$	0
$u = 0.128627 - 1.245240I$ $a = 0.212905 - 0.031597I$ $b = -0.486503 + 0.875009I$	$-0.13557 + 5.95186I$	0
$u = 1.204130 + 0.354190I$ $a = 0.17818 + 1.78115I$ $b = 0.52408 - 1.73822I$	$9.57006 + 3.70434I$	0
$u = 1.204130 - 0.354190I$ $a = 0.17818 - 1.78115I$ $b = 0.52408 + 1.73822I$	$9.57006 - 3.70434I$	0
$u = 0.696978 + 0.242961I$ $a = 1.47898 - 1.89587I$ $b = -1.230770 - 0.240428I$	$3.70072 + 2.25576I$	0
$u = 0.696978 - 0.242961I$ $a = 1.47898 + 1.89587I$ $b = -1.230770 + 0.240428I$	$3.70072 - 2.25576I$	0
$u = 1.044530 + 0.727694I$ $a = 0.76989 + 1.36285I$ $b = 0.05136 - 1.63609I$	$7.68152 + 2.93230I$	0
$u = 1.044530 - 0.727694I$ $a = 0.76989 - 1.36285I$ $b = 0.05136 + 1.63609I$	$7.68152 - 2.93230I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.282410+0.041119I$ $a=-0.39210+1.42284I$ $b=-0.459625-1.270400I$	$9.28508-2.77002I$	0
$u=-1.282410-0.041119I$ $a=-0.39210-1.42284I$ $b=-0.459625+1.270400I$	$9.28508+2.77002I$	0
$u=-0.113706+0.699484I$ $a=\ \ 0.505354-0.192685I$ $b=\ \ 0.462668+0.656433I$	$-0.08263-1.68639I$	0
$u=-0.113706-0.699484I$ $a=\ \ 0.505354+0.192685I$ $b=\ \ 0.462668-0.656433I$	$-0.08263+1.68639I$	0
$u=-0.066006+0.700504I$ $a=\ \ 0.775993-0.605908I$ $b=-0.255746-0.951457I$	$5.83074+0.01892I$	0
$u=-0.066006-0.700504I$ $a=\ \ 0.775993+0.605908I$ $b=-0.255746+0.951457I$	$5.83074-0.01892I$	0
$u=-0.438512+0.549553I$ $a=\ \ 0.928596-0.895860I$ $b=\ \ 0.291030+0.780302I$	$0.10175-1.86374I$	0
$u=-0.438512-0.549553I$ $a=\ \ 0.928596+0.895860I$ $b=\ \ 0.291030-0.780302I$	$0.10175+1.86374I$	0
$u=-0.394539+1.241500I$ $a=\ \ 0.361171-0.345430I$ $b=-0.332453+0.964994I$	$-2.15196+0.74490I$	0
$u=-0.394539-1.241500I$ $a=\ \ 0.361171+0.345430I$ $b=-0.332453-0.964994I$	$-2.15196-0.74490I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.014504+0.694159I$ $a=\ 0.047813-0.680929I$ $b=\ 0.776069+0.314637I$	$-1.40914-1.89710I$	0
$u=-0.014504-0.694159I$ $a=\ 0.047813+0.680929I$ $b=\ 0.776069-0.314637I$	$-1.40914+1.89710I$	0
$u=\ 1.282920+0.348434I$ $a=-0.834958-0.711274I$ $b=-0.046286+1.038770I$	$9.88041-1.30736I$	0
$u=\ 1.282920-0.348434I$ $a=-0.834958+0.711274I$ $b=-0.046286-1.038770I$	$9.88041+1.30736I$	0
$u=\ 0.106206+1.344770I$ $a=-0.199040-0.526640I$ $b=\ 0.183824+0.891175I$	$-1.026260-0.540986I$	0
$u=\ 0.106206-1.344770I$ $a=-0.199040+0.526640I$ $b=\ 0.183824-0.891175I$	$-1.026260+0.540986I$	0
$u=\ 1.260820+0.480942I$ $a=\ 0.04573+1.70953I$ $b=\ 0.90256-1.46246I$	$4.46584+9.82433I$	0
$u=\ 1.260820-0.480942I$ $a=\ 0.04573-1.70953I$ $b=\ 0.90256+1.46246I$	$4.46584-9.82433I$	0
$u=-1.234500+0.563258I$ $a=\ 0.25573-1.75985I$ $b=\ 1.06757+1.61602I$	$8.32741-10.95430I$	0
$u=-1.234500-0.563258I$ $a=\ 0.25573+1.75985I$ $b=\ 1.06757-1.61602I$	$8.32741+10.95430I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.316300 + 0.360720I$ $a = 0.685408 + 1.072370I$ $b = 0.058204 - 1.246820I$	$10.65970 - 2.15773I$	0
$u = 1.316300 - 0.360720I$ $a = 0.685408 - 1.072370I$ $b = 0.058204 + 1.246820I$	$10.65970 + 2.15773I$	0
$u = 1.222000 + 0.609681I$ $a = 0.121479 + 1.097280I$ $b = 0.835533 - 1.039860I$	$-0.86898 + 7.47158I$	0
$u = 1.222000 - 0.609681I$ $a = 0.121479 - 1.097280I$ $b = 0.835533 + 1.039860I$	$-0.86898 - 7.47158I$	0
$u = -1.245180 + 0.565642I$ $a = -0.47057 + 1.59724I$ $b = -0.88939 - 1.49864I$	$9.1480 - 12.0870I$	0
$u = -1.245180 - 0.565642I$ $a = -0.47057 - 1.59724I$ $b = -0.88939 + 1.49864I$	$9.1480 + 12.0870I$	0
$u = 1.288320 + 0.468655I$ $a = -0.30468 - 1.57850I$ $b = -0.695267 + 1.166280I$	$4.06967 + 6.19215I$	0
$u = 1.288320 - 0.468655I$ $a = -0.30468 + 1.57850I$ $b = -0.695267 - 1.166280I$	$4.06967 - 6.19215I$	0
$u = 1.359200 + 0.192350I$ $a = 0.692951 + 1.049260I$ $b = 0.035918 - 0.792671I$	$4.42121 - 4.14669I$	0
$u = 1.359200 - 0.192350I$ $a = 0.692951 - 1.049260I$ $b = 0.035918 + 0.792671I$	$4.42121 + 4.14669I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.329050 + 0.512688I$ $a = 0.279965 - 0.460923I$ $b = 0.940553 + 0.408901I$	$-1.74470 - 1.85010I$	0
$u = 0.329050 - 0.512688I$ $a = 0.279965 + 0.460923I$ $b = 0.940553 - 0.408901I$	$-1.74470 + 1.85010I$	0
$u = -0.583984 + 0.172489I$ $a = 0.95214 + 2.60228I$ $b = -0.385446 - 0.866889I$	$-0.23848 + 2.14040I$	0
$u = -0.583984 - 0.172489I$ $a = 0.95214 - 2.60228I$ $b = -0.385446 + 0.866889I$	$-0.23848 - 2.14040I$	0
$u = 1.389020 + 0.146518I$ $a = -0.478045 - 1.208220I$ $b = -0.389533 + 0.752883I$	$5.15924 + 3.41728I$	0
$u = 1.389020 - 0.146518I$ $a = -0.478045 + 1.208220I$ $b = -0.389533 - 0.752883I$	$5.15924 - 3.41728I$	0
$u = 1.342100 + 0.408057I$ $a = 0.786352 + 1.070250I$ $b = 0.428698 - 0.916190I$	$9.5891 + 11.7077I$	0
$u = 1.342100 - 0.408057I$ $a = 0.786352 - 1.070250I$ $b = 0.428698 + 0.916190I$	$9.5891 - 11.7077I$	0
$u = -1.293450 + 0.569473I$ $a = -0.094894 - 1.148400I$ $b = 1.13100 + 1.07085I$	$4.13960 - 11.87180I$	0
$u = -1.293450 - 0.569473I$ $a = -0.094894 + 1.148400I$ $b = 1.13100 - 1.07085I$	$4.13960 + 11.87180I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.36721+0.36583I$ $a=\ \ 0.710859-1.185490I$ $b=\ \ 0.196770+0.866968I$	$4.53672-4.96013I$	0
$u=-1.36721-0.36583I$ $a=\ \ 0.710859+1.185490I$ $b=\ \ 0.196770-0.866968I$	$4.53672+4.96013I$	0
$u=-1.36879+0.36482I$ $a=-0.19589-1.52974I$ $b=\ \ 0.78345+1.53980I$	$8.69291-10.15650I$	0
$u=-1.36879-0.36482I$ $a=-0.19589+1.52974I$ $b=\ \ 0.78345-1.53980I$	$8.69291+10.15650I$	0
$u=-1.34908+0.43259I$ $a=-0.528886+0.619742I$ $b=-0.274280-0.733500I$	$4.67210-0.41065I$	0
$u=-1.34908-0.43259I$ $a=-0.528886-0.619742I$ $b=-0.274280+0.733500I$	$4.67210+0.41065I$	0
$u=\ \ 1.40452+0.21340I$ $a=\ \ 0.542403-0.648617I$ $b=-1.061320+0.804395I$	$6.08435-0.77361I$	0
$u=\ \ 1.40452-0.21340I$ $a=\ \ 0.542403+0.648617I$ $b=-1.061320-0.804395I$	$6.08435+0.77361I$	0
$u=-1.28821+0.62289I$ $a=-0.29398+1.60437I$ $b=-0.78483-1.41202I$	$1.5073-14.8500I$	0
$u=-1.28821-0.62289I$ $a=-0.29398-1.60437I$ $b=-0.78483+1.41202I$	$1.5073+14.8500I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.30468 + 0.63755I$ $a = -0.29906 - 1.59774I$ $b = -0.90695 + 1.55221I$	$7.0974 + 20.7704I$	0
$u = 1.30468 - 0.63755I$ $a = -0.29906 + 1.59774I$ $b = -0.90695 - 1.55221I$	$7.0974 - 20.7704I$	0
$u = -1.30406 + 0.67002I$ $a = 0.33239 - 1.39521I$ $b = 0.58103 + 1.34183I$	$0.94731 - 7.48790I$	0
$u = -1.30406 - 0.67002I$ $a = 0.33239 + 1.39521I$ $b = 0.58103 - 1.34183I$	$0.94731 + 7.48790I$	0
$u = 1.37479 + 0.56391I$ $a = -0.20987 - 1.53893I$ $b = -0.465872 + 1.187300I$	$3.48753 + 6.95909I$	0
$u = 1.37479 - 0.56391I$ $a = -0.20987 + 1.53893I$ $b = -0.465872 - 1.187300I$	$3.48753 - 6.95909I$	0
$u = -1.47793 + 0.24153I$ $a = 0.590504 - 0.844374I$ $b = 0.108201 + 0.967796I$	$9.92316 + 9.35974I$	0
$u = -1.47793 - 0.24153I$ $a = 0.590504 + 0.844374I$ $b = 0.108201 - 0.967796I$	$9.92316 - 9.35974I$	0
$u = 1.36363 + 0.61941I$ $a = 0.195419 + 1.387570I$ $b = 0.83459 - 1.34054I$	$3.79278 + 12.44250I$	0
$u = 1.36363 - 0.61941I$ $a = 0.195419 - 1.387570I$ $b = 0.83459 + 1.34054I$	$3.79278 - 12.44250I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.41792+0.58848I$ $a=-0.333791+1.307440I$ $b=-0.244156-1.336360I$	$8.30124+0.43046I$	0
$u=-1.41792-0.58848I$ $a=-0.333791-1.307440I$ $b=-0.244156+1.336360I$	$8.30124-0.43046I$	0
$u=-1.27861+0.89240I$ $a=-0.301371+0.399456I$ $b=-0.476870-0.828460I$	$6.31769-4.00639I$	0
$u=-1.27861-0.89240I$ $a=-0.301371-0.399456I$ $b=-0.476870+0.828460I$	$6.31769+4.00639I$	0
$u=-0.226994+0.336093I$ $a=1.166190+0.653299I$ $b=-0.488822+0.774835I$	$1.48420-0.54956I$	$7.79676+1.77226I$
$u=-0.226994-0.336093I$ $a=1.166190-0.653299I$ $b=-0.488822-0.774835I$	$1.48420+0.54956I$	$7.79676-1.77226I$
$u=-1.58094+0.30318I$ $a=-0.104197+0.851319I$ $b=-0.479251-0.915304I$	$5.93635-0.24994I$	0
$u=-1.58094-0.30318I$ $a=-0.104197-0.851319I$ $b=-0.479251+0.915304I$	$5.93635+0.24994I$	0
$u=1.54977+0.53219I$ $a=-0.169142-0.565903I$ $b=-0.602286+0.624438I$	$6.95363+2.04174I$	0
$u=1.54977-0.53219I$ $a=-0.169142+0.565903I$ $b=-0.602286-0.624438I$	$6.95363-2.04174I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.141937 + 0.306447I$		
$a = -3.75197 + 0.30839I$	$3.61762 + 0.94929I$	$3.18662 - 0.49723I$
$b = \quad 0.860735 + 0.855888I$		
$u = \quad 0.141937 - 0.306447I$		
$a = -3.75197 - 0.30839I$	$3.61762 - 0.94929I$	$3.18662 + 0.49723I$
$b = \quad 0.860735 - 0.855888I$		

II.

$\boldsymbol{I_2^u = \langle -5.16\times 10^{26}u^{36}+2.11\times 10^{26}u^{35}+\cdots+4.28\times 10^{25}b-7.25\times 10^{26},\ -1.49\times 10^{27}u^{36}+8.00\times 10^{26}u^{35}+\cdots+4.28\times 10^{25}a-3.46\times 10^{27},\ u^{37}-u^{36}+\cdots+4u-1\rangle}$

(i) Arc colorings

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

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

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

$$a_{11} = \begin{pmatrix} 34.8825u^{36} - 18.6885u^{35} + \cdots - 126.573u + 80.8054 \\ 12.0462u^{36} - 4.93408u^{35} + \cdots - 42.2956u + 16.9211 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 15.6065u^{36} - 11.3243u^{35} + \cdots - 54.3841u + 47.6904 \\ 19.2938u^{36} - 6.92245u^{35} + \cdots - 70.6668u + 28.8329 \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} 52.0221u^{36} - 26.0704u^{35} + \cdots - 180.902u + 111.626 \\ 1.26508u^{36} - 4.40718u^{35} + \cdots - 18.8223u + 11.8887 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 18.6133u^{36} - 25.7077u^{35} + \cdots - 46.8370u + 31.4353 \\ -14.2106u^{36} + 27.6238u^{35} + \cdots + 28.6247u - 44.3755 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -38.9027u^{36} + 24.0824u^{35} + \cdots + 162.448u - 89.5858 \\ 16.0171u^{36} - 15.4564u^{35} + \cdots - 69.8178u + 53.0890 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 21.9261u^{36} - 13.9303u^{35} + \cdots - 80.2773u + 57.4993 \\ 25.0026u^{36} - 9.69226u^{35} + \cdots - 88.5914u + 40.2272 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 57.3789u^{36} - 29.0460u^{35} + \cdots - 231.390u + 126.183 \\ -15.4608u^{36} + 3.18647u^{35} + \cdots + 56.2952u - 25.2985 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -1.22036u^{36} + 8.97019u^{35} + \cdots - 15.7267u - 16.7138 \\ -23.9466u^{36} + 10.2153u^{35} + \cdots + 113.117u - 57.2269 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{41457422694650053987239335 97}{85639155924796508210761 49}u^{36} + \frac{11978091557345911719920346 85}{85639155924796508210761 49}u^{35} + \cdots + \frac{14297753455477247096134113741}{85639155924796508210761 49}u - \frac{61044672213278774811246341 39}{85639155924796508210761 49}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{37} - 4u^{36} + \cdots + 122u + 17$
c_2	$u^{37} + u^{36} + \cdots + 4u + 1$
c_3	$u^{37} - 6u^{36} + \cdots - 20u - 4$
c_4	$u^{37} + 4u^{36} + \cdots + 122u - 17$
c_5	$u^{37} - 4u^{36} + \cdots + 2u - 1$
c_6	$u^{37} - 2u^{36} + \cdots - 147u - 47$
c_7	$u^{37} - u^{36} + \cdots + 4u - 1$
c_8	$u^{37} + 3u^{35} + \cdots + 8u + 1$
c_9	$u^{37} + 2u^{36} + \cdots + 4u + 1$
c_{10}	$u^{37} + 4u^{36} + \cdots - 7u - 1$
c_{11}	$u^{37} - 3u^{36} + \cdots + 40u + 4$
c_{12}	$u^{37} + 5u^{36} + \cdots + 13u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{37} + 24y^{36} + \cdots + 37120y - 289$
c_2, c_7	$y^{37} - 19y^{36} + \cdots + 28y - 1$
c_3	$y^{37} - 6y^{36} + \cdots + 256y - 16$
c_5	$y^{37} - 10y^{36} + \cdots - 18y - 1$
c_6	$y^{37} - 8y^{36} + \cdots - 8941y - 2209$
c_8	$y^{37} + 6y^{36} + \cdots - 14y - 1$
c_9	$y^{37} - 16y^{36} + \cdots - 16y - 1$
c_{10}	$y^{37} + 8y^{36} + \cdots + 3y - 1$
c_{11}	$y^{37} + y^{36} + \cdots + 176y - 16$
c_{12}	$y^{37} + y^{36} + \cdots + 49y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.868897+0.466119I$ $a=\ \ 0.359936+1.153070I$ $b=\ \ 0.419098-0.294302I$	$-2.23451-1.92723I$	$2.95996+3.69743I$
$u=-0.868897-0.466119I$ $a=\ \ 0.359936-1.153070I$ $b=\ \ 0.419098+0.294302I$	$-2.23451+1.92723I$	$2.95996-3.69743I$
$u=-1.011700+0.109493I$ $a=\ \ 1.76940+3.43691I$ $b=-1.59397-2.88463I$	$5.09089-0.25295I$	$15.3810+27.5250I$
$u=-1.011700-0.109493I$ $a=\ \ 1.76940-3.43691I$ $b=-1.59397+2.88463I$	$5.09089+0.25295I$	$15.3810-27.5250I$
$u=-1.030510+0.181993I$ $a=-0.93707+1.46769I$ $b=-0.34362-1.43816I$	$9.70352-0.75780I$	$11.79132+0.53207I$
$u=-1.030510-0.181993I$ $a=-0.93707-1.46769I$ $b=-0.34362+1.43816I$	$9.70352+0.75780I$	$11.79132-0.53207I$
$u=-0.809265+0.465487I$ $a=-2.74341-2.65628I$ $b=\ \ 3.47425-1.03275I$	$3.39822-2.30035I$	$-32.3748-18.4188I$
$u=-0.809265-0.465487I$ $a=-2.74341+2.65628I$ $b=\ \ 3.47425+1.03275I$	$3.39822+2.30035I$	$-32.3748+18.4188I$
$u=\ \ 0.949083+0.500792I$ $a=-1.24149-1.62990I$ $b=-0.58128+1.99059I$	$2.79088+2.17415I$	$11.1768+9.7870I$
$u=\ \ 0.949083-0.500792I$ $a=-1.24149+1.62990I$ $b=-0.58128-1.99059I$	$2.79088-2.17415I$	$11.1768-9.7870I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.853290$ $a = -2.72968$ $b = 3.02989$	-0.402605	-250.070
$u = 0.777113 + 0.865803I$ $a = -0.349153 - 0.545400I$ $b = 0.088786 + 0.485872I$	$0.11736 + 3.04359I$	$-7.93231 - 11.10173I$
$u = 0.777113 - 0.865803I$ $a = -0.349153 + 0.545400I$ $b = 0.088786 - 0.485872I$	$0.11736 - 3.04359I$	$-7.93231 + 11.10173I$
$u = 0.159024 + 0.745057I$ $a = -0.880528 - 0.376498I$ $b = 0.510100 + 0.551892I$	$-2.94113 + 0.19141I$	$-3.10948 - 0.94285I$
$u = 0.159024 - 0.745057I$ $a = -0.880528 + 0.376498I$ $b = 0.510100 - 0.551892I$	$-2.94113 - 0.19141I$	$-3.10948 + 0.94285I$
$u = 0.733999 + 0.133081I$ $a = -0.62590 - 2.19007I$ $b = -0.567697 + 0.020454I$	$2.48908 + 3.32802I$	$-0.62028 - 7.56302I$
$u = 0.733999 - 0.133081I$ $a = -0.62590 + 2.19007I$ $b = -0.567697 - 0.020454I$	$2.48908 - 3.32802I$	$-0.62028 + 7.56302I$
$u = -0.140565 + 1.322530I$ $a = 0.146825 - 0.491027I$ $b = -0.214917 + 0.915721I$	$-0.995197 + 0.718534I$	$0. - 21.6445I$
$u = -0.140565 - 1.322530I$ $a = 0.146825 + 0.491027I$ $b = -0.214917 - 0.915721I$	$-0.995197 - 0.718534I$	$0. + 21.6445I$
$u = 1.324870 + 0.156924I$ $a = -0.67784 - 1.27418I$ $b = -0.326473 + 0.750865I$	$5.42437 + 3.34960I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.324870 - 0.156924I$ $a = -0.67784 + 1.27418I$ $b = -0.326473 - 0.750865I$	$5.42437 - 3.34960I$	0
$u = 0.535131 + 0.392681I$ $a = -1.58221 - 0.92506I$ $b = 0.704929 + 0.389191I$	$-0.39962 + 3.31374I$	$0.74989 - 5.47054I$
$u = 0.535131 - 0.392681I$ $a = -1.58221 + 0.92506I$ $b = 0.704929 - 0.389191I$	$-0.39962 - 3.31374I$	$0.74989 + 5.47054I$
$u = -0.208798 + 1.321690I$ $a = 0.0410725 + 0.0316765I$ $b = -0.387407 - 0.610779I$	$1.09399 - 7.05725I$	0
$u = -0.208798 - 1.321690I$ $a = 0.0410725 - 0.0316765I$ $b = -0.387407 + 0.610779I$	$1.09399 + 7.05725I$	0
$u = 1.304570 + 0.464905I$ $a = -0.06285 + 1.50068I$ $b = 1.11772 - 1.19566I$	$6.13841 + 12.36180I$	0
$u = 1.304570 - 0.464905I$ $a = -0.06285 - 1.50068I$ $b = 1.11772 + 1.19566I$	$6.13841 - 12.36180I$	0
$u = 1.300740 + 0.518086I$ $a = -0.637488 - 0.402995I$ $b = -0.418074 + 0.591317I$	$6.14412 + 2.97297I$	0
$u = 1.300740 - 0.518086I$ $a = -0.637488 + 0.402995I$ $b = -0.418074 - 0.591317I$	$6.14412 - 2.97297I$	0
$u = -1.38472 + 0.50428I$ $a = 0.17262 - 1.53331I$ $b = 0.521331 + 1.143030I$	$3.73253 - 7.03810I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.38472-0.50428I$ $a=\ \ 0.17262+1.53331I$ $b=\ \ 0.521331-1.143030I$	$3.73253+7.03810I$	0
$u=-0.471764+0.154879I$ $a=\ \ 0.51318-2.06019I$ $b=-0.907380-0.227460I$	$-1.78263-5.14251I$	$0.53228+6.37632I$
$u=-0.471764-0.154879I$ $a=\ \ 0.51318+2.06019I$ $b=-0.907380+0.227460I$	$-1.78263+5.14251I$	$0.53228-6.37632I$
$u=\ \ 0.443160+0.045273I$ $a=\ \ 2.02126-2.50570I$ $b=-1.385580-0.169240I$	$1.96273-9.55532I$	$5.13332+8.37912I$
$u=\ \ 0.443160-0.045273I$ $a=\ \ 2.02126+2.50570I$ $b=-1.385580+0.169240I$	$1.96273+9.55532I$	$5.13332-8.37912I$
$u=-1.52812+0.32652I$ $a=\ \ 0.078480+0.864836I$ $b=-0.624749-0.955673I$	$6.52645+0.14083I$	0
$u=-1.52812-0.32652I$ $a=\ \ 0.078480-0.864836I$ $b=-0.624749+0.955673I$	$6.52645-0.14083I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{37}-4u^{36}+\cdots+122u+17)(u^{172}-9u^{171}+\cdots-100u+1)$
c_2	$(u^{37}+u^{36}+\cdots+4u+1)(u^{172}-50u^{170}+\cdots-24120u+74007)$
c_3	$(u^{37}-6u^{36}+\cdots-20u-4)(u^{172}+7u^{171}+\cdots-919920u-65828)$
c_4	$(u^{37}+4u^{36}+\cdots+122u-17)(u^{172}-9u^{171}+\cdots-100u+1)$
c_5	$(u^{37}-4u^{36}+\cdots+2u-1)(u^{172}-7u^{171}+\cdots+10616u-167)$
c_6	$(u^{37}-2u^{36}+\cdots-147u-47)$ $\cdot(u^{172}-7u^{171}+\cdots-87748249u-53910283)$
c_7	$(u^{37}-u^{36}+\cdots+4u-1)(u^{172}-50u^{170}+\cdots-24120u+74007)$
c_8	$(u^{37}+3u^{35}+\cdots+8u+1)(u^{172}-19u^{171}+\cdots+285466u-10697)$
c_9	$(u^{37}+2u^{36}+\cdots+4u+1)(u^{172}-11u^{171}+\cdots-160u-7)$
c_{10}	$(u^{37}+4u^{36}+\cdots-7u-1)$ $\cdot(u^{172}-7u^{171}+\cdots+503175069u-16162283)$
c_{11}	$(u^{37}-3u^{36}+\cdots+40u+4)(u^{172}-4u^{171}+\cdots+77660u-9916)$
c_{12}	$(u^{37}+5u^{36}+\cdots+13u-1)$ $\cdot(u^{172}-18u^{170}+\cdots+1012767u+106551)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$(y^{37}+24y^{36}+\cdots+37120y-289)(y^{172}+127y^{171}+\cdots-3840y+1)$
c_2, c_7	$(y^{37}-19y^{36}+\cdots+28y-1)$ $\cdot(y^{172}-100y^{171}+\cdots-159358760424y+5477036049)$
c_3	$(y^{37}-6y^{36}+\cdots+256y-16)$ $\cdot(y^{172}-23y^{171}+\cdots+56985557264y+4333325584)$
c_5	$(y^{37}-10y^{36}+\cdots-18y-1)$ $\cdot(y^{172}+9y^{171}+\cdots-70838234y+27889)$
c_6	$(y^{37}-8y^{36}+\cdots-8941y-2209)$ $\cdot(y^{172}+47y^{171}+\cdots+2003456514376098053y+2906318613140089)$
c_8	$(y^{37}+6y^{36}+\cdots-14y-1)$ $\cdot(y^{172}+37y^{171}+\cdots+5944665142y+114425809)$
c_9	$(y^{37}-16y^{36}+\cdots-16y-1)(y^{172}-21y^{171}+\cdots-3648y+49)$
c_{10}	$(y^{37}+8y^{36}+\cdots+3y-1)$ $\cdot(y^{172}-53y^{171}+\cdots-88286474877028847y+261219391772089)$
c_{11}	$(y^{37}+y^{36}+\cdots+176y-16)$ $\cdot(y^{172}-12y^{171}+\cdots-3415353792y+98327056)$
c_{12}	$(y^{37}+y^{36}+\cdots+49y-1)$ $\cdot(y^{172}-36y^{171}+\cdots-1103499684081y+11353115601)$