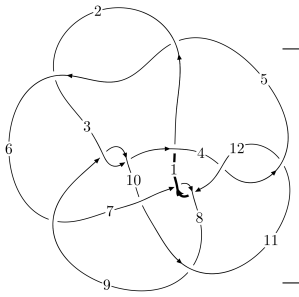
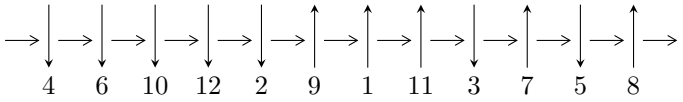
$12a_{0962}$ $(K12a_{0962})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -1.47858 \times 10^{906} u^{167} - 1.86588 \times 10^{906} u^{166} + \cdots + 2.81415 \times 10^{907} b - 2.43977 \times 10^{910},$$
$$- 9.74692 \times 10^{910} u^{167} - 1.64355 \times 10^{911} u^{166} + \cdots + 3.51515 \times 10^{911} a - 7.67366 \times 10^{914},$$
$$u^{168} + 2u^{167} + \cdots + 5047u - 12491 \rangle$$
$$I_2^u = \langle 2.04586 \times 10^{50} u^{48} + 1.66191 \times 10^{50} u^{47} + \cdots + 1.22185 \times 10^{49} b + 6.36745 \times 10^{50},$$
$$2.72498 \times 10^{51} u^{48} + 1.13526 \times 10^{51} u^{47} + \cdots + 8.55296 \times 10^{49} a + 3.50591 \times 10^{52},\ u^{49} + u^{48} + \cdots - 19u - 7$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 217 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. $\boldsymbol{I_1^u = \langle -1.48 \times 10^{906} u^{167} - 1.87 \times 10^{906} u^{166} + \cdots + 2.81 \times 10^{907} b - 2.44 \times 10^{910},\ -9.75 \times 10^{910} u^{167} - 1.64 \times 10^{911} u^{166} + \cdots + 3.52 \times 10^{911} a - 7.67 \times 10^{914},\ u^{168} + 2u^{167} + \cdots + 5047u - 12491 \rangle}$

(i) Arc colorings

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

$$a_{12} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.277283u^{167} + 0.467562u^{166} + \cdots - 7171.07u + 2183.02 \\ 0.0525410u^{167} + 0.0663036u^{166} + \cdots - 1722.43u + 866.965 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.329824u^{167} + 0.533866u^{166} + \cdots - 8893.50u + 3049.99 \\ 0.0525410u^{167} + 0.0663036u^{166} + \cdots - 1722.43u + 866.965 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.474713u^{167} - 0.734990u^{166} + \cdots + 11669.8u - 5374.80 \\ 0.0652619u^{167} + 0.172891u^{166} + \cdots - 691.352u - 949.598 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.182365u^{167} + 0.456811u^{166} + \cdots - 3559.96u - 1998.14 \\ 0.0592164u^{167} + 0.164564u^{166} + \cdots - 1628.68u - 776.813 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.209000u^{167} + 0.592035u^{166} + \cdots - 3261.57u - 3553.75 \\ -0.00209783u^{167} - 0.0814685u^{166} + \cdots - 172.095u + 1475.68 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.387045u^{167} - 0.716368u^{166} + \cdots + 8369.78u - 1384.09 \\ 0.0874866u^{167} + 0.240025u^{166} + \cdots - 1771.47u - 1142.82 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.248860u^{167} + 0.638379u^{166} + \cdots - 4901.42u - 2990.00 \\ 0.0303659u^{167} + 0.0906564u^{166} + \cdots - 872.648u - 391.732 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.342467u^{167} + 0.755504u^{166} + \cdots - 6879.19u - 1168.44 \\ 0.0000903648u^{167} - 0.0687298u^{166} + \cdots - 923.769u + 1485.07 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.114789u^{167} + 0.346935u^{166} + \cdots - 3505.02u - 4107.41$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{168} - 16u^{167} + \cdots - 7296363u - 2529737$
c_2, c_5	$u^{168} + 4u^{167} + \cdots - 16865158u - 846613$
c_3, c_9	$u^{168} + u^{167} + \cdots - 150117u + 83053$
c_4, c_{11}	$u^{168} + 2u^{167} + \cdots - 1178u - 1129$
c_6	$u^{168} + 12u^{167} + \cdots + 4386421103u + 2616924533$
c_7, c_{12}	$u^{168} - 2u^{167} + \cdots - 5047u - 12491$
c_8	$u^{168} + 16u^{167} + \cdots - 1222355035u - 68295775$
c_{10}	$u^{168} - 4u^{167} + \cdots - 1722u - 677$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{168} - 32y^{167} + \cdots + 548413938838239y + 6399569289169$
c_2, c_5	$y^{168} - 140y^{167} + \cdots - 42252653628006y + 716753571769$
c_3, c_9	$y^{168} - 117y^{167} + \cdots - 182975736347y + 6897800809$
c_4, c_{11}	$y^{168} + 88y^{167} + \cdots + 25277038y + 1274641$
c_6	$y^{168} + 64y^{167} + \cdots + 1.24 \times 10^{20}y + 6.85 \times 10^{18}$
c_7, c_{12}	$y^{168} + 96y^{167} + \cdots + 5492077293y + 156025081$
c_8	$y^{168} + 4y^{167} + \cdots - 21823179596653325y + 4664312882850625$
c_{10}	$y^{168} + 8y^{167} + \cdots + 19733172y + 458329$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.918428+0.430989I$ $a=\ \ 0.341011-1.168160I$ $b=-0.047844+0.978748I$	$1.99142-1.64104I$	0
$u=-0.918428-0.430989I$ $a=\ \ 0.341011+1.168160I$ $b=-0.047844-0.978748I$	$1.99142+1.64104I$	0
$u=\ \ 0.393513+0.875679I$ $a=\ \ 1.81243+0.73273I$ $b=\ \ 0.177717-1.043040I$	$3.33667+0.47075I$	0
$u=\ \ 0.393513-0.875679I$ $a=\ \ 1.81243-0.73273I$ $b=\ \ 0.177717+1.043040I$	$3.33667-0.47075I$	0
$u=\ \ 0.338711+0.984342I$ $a=-1.39581-0.45299I$ $b=-0.579436+1.149320I$	$2.53310+4.02835I$	0
$u=\ \ 0.338711-0.984342I$ $a=-1.39581+0.45299I$ $b=-0.579436-1.149320I$	$2.53310-4.02835I$	0
$u=-0.110422+0.951381I$ $a=\ \ 0.246784-0.675413I$ $b=-0.620044-0.487533I$	$-6.91849-3.24031I$	0
$u=-0.110422-0.951381I$ $a=\ \ 0.246784+0.675413I$ $b=-0.620044+0.487533I$	$-6.91849+3.24031I$	0
$u=-0.673695+0.799316I$ $a=\ \ 1.00173-1.31177I$ $b=\ \ 0.545996+1.045430I$	$0.35488-4.10113I$	0
$u=-0.673695-0.799316I$ $a=\ \ 1.00173+1.31177I$ $b=\ \ 0.545996-1.045430I$	$0.35488+4.10113I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.703092 + 0.774776I$ $a = -0.111180 + 0.410345I$ $b = -0.630214 - 0.980362I$	$-1.77303 + 2.37900I$	0
$u = 0.703092 - 0.774776I$ $a = -0.111180 - 0.410345I$ $b = -0.630214 + 0.980362I$	$-1.77303 - 2.37900I$	0
$u = -0.342877 + 0.883393I$ $a = 1.094360 - 0.183388I$ $b = 0.599986 + 1.057760I$	$0.279317 - 0.050553I$	0
$u = -0.342877 - 0.883393I$ $a = 1.094360 + 0.183388I$ $b = 0.599986 - 1.057760I$	$0.279317 + 0.050553I$	0
$u = -0.389184 + 0.863289I$ $a = -0.509403 + 1.141310I$ $b = -0.04335 - 1.60818I$	$-2.32904 - 8.52063I$	0
$u = -0.389184 - 0.863289I$ $a = -0.509403 - 1.141310I$ $b = -0.04335 + 1.60818I$	$-2.32904 + 8.52063I$	0
$u = 1.022390 + 0.312253I$ $a = -0.44466 - 1.38007I$ $b = 0.577212 + 1.177110I$	$0.19320 - 7.89628I$	0
$u = 1.022390 - 0.312253I$ $a = -0.44466 + 1.38007I$ $b = 0.577212 - 1.177110I$	$0.19320 + 7.89628I$	0
$u = 0.989105 + 0.409632I$ $a = 0.33981 - 1.51674I$ $b = -0.396530 + 1.093670I$	$-3.53113 + 5.72867I$	0
$u = 0.989105 - 0.409632I$ $a = 0.33981 + 1.51674I$ $b = -0.396530 - 1.093670I$	$-3.53113 - 5.72867I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.885977+0.266645I$ $a=-0.316159+0.824379I$ $b=\ \ 0.483500-1.053340I$	$0.46078+2.44862I$	0
$u=-0.885977-0.266645I$ $a=-0.316159-0.824379I$ $b=\ \ 0.483500+1.053340I$	$0.46078-2.44862I$	0
$u=-0.088094+0.920499I$ $a=\ \ 1.67252+1.42912I$ $b=\ \ 0.524871-1.028110I$	$-6.60170+2.25140I$	0
$u=-0.088094-0.920499I$ $a=\ \ 1.67252-1.42912I$ $b=\ \ 0.524871+1.028110I$	$-6.60170-2.25140I$	0
$u=\ \ 0.190766+1.071030I$ $a=\ \ 0.149722-0.176152I$ $b=\ \ 0.691814+0.435694I$	$-1.88716-0.93904I$	0
$u=\ \ 0.190766-1.071030I$ $a=\ \ 0.149722+0.176152I$ $b=\ \ 0.691814-0.435694I$	$-1.88716+0.93904I$	0
$u=\ \ 0.283333+0.866079I$ $a=-2.20637-1.92640I$ $b=-0.05259+1.47877I$	$2.12329+1.28571I$	0
$u=\ \ 0.283333-0.866079I$ $a=-2.20637+1.92640I$ $b=-0.05259-1.47877I$	$2.12329-1.28571I$	0
$u=\ \ 0.453804+0.786407I$ $a=\ \ 1.20341+1.23121I$ $b=\ \ 0.10352-1.57851I$	$3.39615+1.90421I$	0
$u=\ \ 0.453804-0.786407I$ $a=\ \ 1.20341-1.23121I$ $b=\ \ 0.10352+1.57851I$	$3.39615-1.90421I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.093900 + 0.112508I$ $a = -0.37200 - 1.59647I$ $b = -0.373242 + 1.086890I$	$1.09890 + 3.56092I$	0
$u = 1.093900 - 0.112508I$ $a = -0.37200 + 1.59647I$ $b = -0.373242 - 1.086890I$	$1.09890 - 3.56092I$	0
$u = -0.192768 + 1.092600I$ $a = 0.263671 + 0.086622I$ $b = 1.40798 - 0.62713I$	$-10.72030 - 2.59279I$	0
$u = -0.192768 - 1.092600I$ $a = 0.263671 - 0.086622I$ $b = 1.40798 + 0.62713I$	$-10.72030 + 2.59279I$	0
$u = -0.886442$ $a = -0.0999926$ $b = -0.639703$	-2.00652	0
$u = 0.285591 + 1.076660I$ $a = 0.212952 + 0.452076I$ $b = 1.40173 + 0.41490I$	$-10.96720 - 0.56342I$	0
$u = 0.285591 - 1.076660I$ $a = 0.212952 - 0.452076I$ $b = 1.40173 - 0.41490I$	$-10.96720 + 0.56342I$	0
$u = 1.032420 + 0.426670I$ $a = 0.49873 + 1.41425I$ $b = -0.364067 - 1.083950I$	$4.08546 - 3.26828I$	0
$u = 1.032420 - 0.426670I$ $a = 0.49873 - 1.41425I$ $b = -0.364067 + 1.083950I$	$4.08546 + 3.26828I$	0
$u = -0.287148 + 1.086030I$ $a = 2.27784 - 0.17436I$ $b = 0.352860 + 1.154770I$	$-4.50225 - 8.97758I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.287148-1.086030I$ $a=\ \ 2.27784+0.17436I$ $b=\ \ 0.352860-1.154770I$	$-4.50225+8.97758I$	0
$u=-0.404383+1.054120I$ $a=-0.76593+1.54288I$ $b=-0.629492-0.821694I$	$-5.73161-0.72554I$	0
$u=-0.404383-1.054120I$ $a=-0.76593-1.54288I$ $b=-0.629492+0.821694I$	$-5.73161+0.72554I$	0
$u=\ \ 0.015129+0.868959I$ $a=-0.596248-0.271674I$ $b=-1.61124-0.12973I$	$-9.36884+1.82484I$	0
$u=\ \ 0.015129-0.868959I$ $a=-0.596248+0.271674I$ $b=-1.61124+0.12973I$	$-9.36884-1.82484I$	0
$u=-0.194063+0.845402I$ $a=-0.155968-1.006410I$ $b=-0.32653+1.60337I$	$0.75233-2.40435I$	0
$u=-0.194063-0.845402I$ $a=-0.155968+1.006410I$ $b=-0.32653-1.60337I$	$0.75233+2.40435I$	0
$u=\ \ 0.849667+0.054299I$ $a=\ \ 0.244224-1.123670I$ $b=-0.822413+0.229312I$	$-6.67699-8.56915I$	0
$u=\ \ 0.849667-0.054299I$ $a=\ \ 0.244224+1.123670I$ $b=-0.822413-0.229312I$	$-6.67699+8.56915I$	0
$u=\ \ 0.587924+0.987567I$ $a=-0.100488-0.910471I$ $b=\ \ 0.221778+1.155540I$	$-1.56426+1.85084I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.587924 - 0.987567I$ $a = -0.100488 + 0.910471I$ $b = 0.221778 - 1.155540I$	$-1.56426 - 1.85084I$	0
$u = 0.632026 + 0.963981I$ $a = 0.46175 + 1.65772I$ $b = 0.680728 - 0.631130I$	$-8.69514 + 6.97624I$	0
$u = 0.632026 - 0.963981I$ $a = 0.46175 - 1.65772I$ $b = 0.680728 + 0.631130I$	$-8.69514 - 6.97624I$	0
$u = -1.161320 + 0.063463I$ $a = 0.101422 + 1.292670I$ $b = 0.349573 - 0.998205I$	$1.77020 + 2.34542I$	0
$u = -1.161320 - 0.063463I$ $a = 0.101422 - 1.292670I$ $b = 0.349573 + 0.998205I$	$1.77020 - 2.34542I$	0
$u = -0.517247 + 0.644614I$ $a = -1.46538 + 0.90474I$ $b = -0.215238 - 1.319840I$	$-1.78354 + 4.75411I$	0
$u = -0.517247 - 0.644614I$ $a = -1.46538 - 0.90474I$ $b = -0.215238 + 1.319840I$	$-1.78354 - 4.75411I$	0
$u = 0.567888 + 1.035140I$ $a = -0.54400 - 1.92403I$ $b = -0.371641 + 1.050350I$	$-3.30124 + 4.81565I$	0
$u = 0.567888 - 1.035140I$ $a = -0.54400 + 1.92403I$ $b = -0.371641 - 1.050350I$	$-3.30124 - 4.81565I$	0
$u = -0.364179 + 1.125550I$ $a = 0.071295 - 0.187691I$ $b = 1.028750 - 0.143038I$	$-1.83017 - 3.68261I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.364179-1.125550I$ $a=\ 0.071295+0.187691I$ $b=\ 1.028750+0.143038I$	$-1.83017+3.68261I$	0
$u=\ 0.498697+0.644857I$ $a=\ 1.46756+0.77057I$ $b=\ 0.845950-0.658328I$	$-1.28239+2.37269I$	0
$u=\ 0.498697-0.644857I$ $a=\ 1.46756-0.77057I$ $b=\ 0.845950+0.658328I$	$-1.28239-2.37269I$	0
$u=-0.208482+1.184020I$ $a=\ 1.80251-1.86165I$ $b=\ 0.319387+0.941875I$	$-8.80056-7.50667I$	0
$u=-0.208482-1.184020I$ $a=\ 1.80251+1.86165I$ $b=\ 0.319387-0.941875I$	$-8.80056+7.50667I$	0
$u=-0.400330+1.133910I$ $a=-1.50481+0.27252I$ $b=-0.269885-0.968468I$	$-0.07190-5.94409I$	0
$u=-0.400330-1.133910I$ $a=-1.50481-0.27252I$ $b=-0.269885+0.968468I$	$-0.07190+5.94409I$	0
$u=\ 0.320304+0.713430I$ $a=\ 0.45500+2.08722I$ $b=\ 0.054996-1.324430I$	$3.91872+2.79904I$	0
$u=\ 0.320304-0.713430I$ $a=\ 0.45500-2.08722I$ $b=\ 0.054996+1.324430I$	$3.91872-2.79904I$	0
$u=-1.195420+0.242553I$ $a=\ 0.280569-1.381860I$ $b=-0.561035+1.168040I$	$-3.9328+13.6749I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.195420-0.242553I$ $a=\ \ 0.280569+1.381860I$ $b=-0.561035-1.168040I$	$-3.9328-13.6749I$	0
$u=\ \ 0.300226+0.718752I$ $a=-3.10168-1.15356I$ $b=\ \ 0.068278+0.600458I$	$-2.18487-1.07120I$	0
$u=\ \ 0.300226-0.718752I$ $a=-3.10168+1.15356I$ $b=\ \ 0.068278-0.600458I$	$-2.18487+1.07120I$	0
$u=-0.463447+1.137320I$ $a=\ \ 0.063693+0.333823I$ $b=-1.271070+0.455285I$	$-5.40421-6.76861I$	0
$u=-0.463447-1.137320I$ $a=\ \ 0.063693-0.333823I$ $b=-1.271070-0.455285I$	$-5.40421+6.76861I$	0
$u=\ \ 0.382791+1.168610I$ $a=-0.360291-0.035985I$ $b=-0.896285-0.453907I$	$-4.08870+3.02478I$	0
$u=\ \ 0.382791-1.168610I$ $a=-0.360291+0.035985I$ $b=-0.896285+0.453907I$	$-4.08870-3.02478I$	0
$u=\ \ 0.017945+0.769779I$ $a=\ \ 4.09201+0.09269I$ $b=\ \ 0.118614+0.630587I$	$-6.78657+6.60631I$	0
$u=\ \ 0.017945-0.769779I$ $a=\ \ 4.09201-0.09269I$ $b=\ \ 0.118614-0.630587I$	$-6.78657-6.60631I$	0
$u=-0.374638+1.172600I$ $a=-1.16503+1.39669I$ $b=-0.474626-1.201460I$	$-3.95980-6.40030I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.374638-1.172600I$ $a=-1.16503-1.39669I$ $b=-0.474626+1.201460I$	$-3.95980+6.40030I$	0
$u=-0.137359+0.734731I$ $a=-1.44298+1.96794I$ $b=-0.581645-1.027780I$	$-5.34187-1.52857I$	0
$u=-0.137359-0.734731I$ $a=-1.44298-1.96794I$ $b=-0.581645+1.027780I$	$-5.34187+1.52857I$	0
$u=-0.468020+1.164730I$ $a=-0.579528+0.174086I$ $b=\ \ 0.725873-0.939138I$	$-7.82307-1.63494I$	0
$u=-0.468020-1.164730I$ $a=-0.579528-0.174086I$ $b=\ \ 0.725873+0.939138I$	$-7.82307+1.63494I$	0
$u=-0.653691+1.073370I$ $a=-0.958442+0.870715I$ $b=-0.745985-0.974875I$	$-1.87552-7.94764I$	0
$u=-0.653691-1.073370I$ $a=-0.958442-0.870715I$ $b=-0.745985+0.974875I$	$-1.87552+7.94764I$	0
$u=-0.470605+1.180600I$ $a=\ \ 1.09591-1.26059I$ $b=\ \ 0.72448+1.35194I$	$-7.73056-6.75855I$	0
$u=-0.470605-1.180600I$ $a=\ \ 1.09591+1.26059I$ $b=\ \ 0.72448-1.35194I$	$-7.73056+6.75855I$	0
$u=-0.623096+1.117180I$ $a=\ \ 0.758813-1.152880I$ $b=\ \ 0.532355+1.067250I$	$-0.02398-3.75865I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.623096-1.117180I$ $a=\ 0.758813+1.152880I$ $b=\ 0.532355-1.067250I$	$-0.02398+3.75865I$	0
$u=\ 0.186246+1.281110I$ $a=\ 0.131549-0.566632I$ $b=\ 0.463955-0.504067I$	$-8.18766+1.97091I$	0
$u=\ 0.186246-1.281110I$ $a=\ 0.131549+0.566632I$ $b=\ 0.463955+0.504067I$	$-8.18766-1.97091I$	0
$u=\ 0.426977+1.225240I$ $a=-0.0756325-0.0454064I$ $b=-1.057070-0.169837I$	$-4.97392+7.85528I$	0
$u=\ 0.426977-1.225240I$ $a=-0.0756325+0.0454064I$ $b=-1.057070+0.169837I$	$-4.97392-7.85528I$	0
$u=\ 1.196830+0.505602I$ $a=-0.031968-1.389730I$ $b=\ 0.303734+0.832679I$	$1.154930-0.329553I$	0
$u=\ 1.196830-0.505602I$ $a=-0.031968+1.389730I$ $b=\ 0.303734-0.832679I$	$1.154930+0.329553I$	0
$u=\ 0.531065+0.453610I$ $a=\ 0.0832565-0.0164138I$ $b=\ 0.541186+0.260859I$	$-1.50565-0.13120I$	0
$u=\ 0.531065-0.453610I$ $a=\ 0.0832565+0.0164138I$ $b=\ 0.541186-0.260859I$	$-1.50565+0.13120I$	0
$u=\ 1.217010+0.463553I$ $a=-0.358449-1.235130I$ $b=\ 0.038366+0.745851I$	$-0.51048+4.26435I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.217010 - 0.463553I$ $a = -0.358449 + 1.235130I$ $b = 0.038366 - 0.745851I$	$-0.51048 - 4.26435I$	0
$u = -0.685973 + 0.096441I$ $a = 0.72343 - 1.87385I$ $b = -0.547170 + 1.189610I$	$-4.60465 + 2.36684I$	0
$u = -0.685973 - 0.096441I$ $a = 0.72343 + 1.87385I$ $b = -0.547170 - 1.189610I$	$-4.60465 - 2.36684I$	0
$u = 0.242092 + 0.648756I$ $a = -0.271085 - 1.157720I$ $b = 0.26415 + 1.41721I$	$3.70763 - 1.21600I$	0
$u = 0.242092 - 0.648756I$ $a = -0.271085 + 1.157720I$ $b = 0.26415 - 1.41721I$	$3.70763 + 1.21600I$	0
$u = 0.053917 + 0.671896I$ $a = -1.96952 - 0.03798I$ $b = -0.764795 + 0.793992I$	$0.93435 + 1.49414I$	0
$u = 0.053917 - 0.671896I$ $a = -1.96952 + 0.03798I$ $b = -0.764795 - 0.793992I$	$0.93435 - 1.49414I$	0
$u = 0.500038 + 1.236460I$ $a = -0.009406 + 0.228270I$ $b = 1.198670 + 0.383080I$	$-10.1882 + 13.4664I$	0
$u = 0.500038 - 1.236460I$ $a = -0.009406 - 0.228270I$ $b = 1.198670 - 0.383080I$	$-10.1882 - 13.4664I$	0
$u = -1.298650 + 0.356982I$ $a = -0.344975 + 1.274770I$ $b = 0.386235 - 1.070080I$	$1.50647 + 6.74866I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.298650-0.356982I$ $a=-0.344975-1.274770I$ $b=\ \ 0.386235+1.070080I$	$1.50647-6.74866I$	0
$u=-0.463376+1.271990I$ $a=-0.053363-0.195450I$ $b=-0.598207+0.586680I$	$-2.72797-3.03924I$	0
$u=-0.463376-1.271990I$ $a=-0.053363+0.195450I$ $b=-0.598207-0.586680I$	$-2.72797+3.03924I$	0
$u=\ \ 0.417836+1.287680I$ $a=\ \ 0.691187+0.872887I$ $b=\ \ 0.79236-1.25085I$	$-8.36954+10.13420I$	0
$u=\ \ 0.417836-1.287680I$ $a=\ \ 0.691187-0.872887I$ $b=\ \ 0.79236+1.25085I$	$-8.36954-10.13420I$	0
$u=\ \ 0.100639+1.354940I$ $a=-0.210551-0.333306I$ $b=-0.645210-0.026152I$	$-7.22142+2.08195I$	0
$u=\ \ 0.100639-1.354940I$ $a=-0.210551+0.333306I$ $b=-0.645210+0.026152I$	$-7.22142-2.08195I$	0
$u=-0.751048+1.137610I$ $a=\ \ 0.859804-0.727684I$ $b=-0.154559+0.651543I$	$-5.50240-2.99475I$	0
$u=-0.751048-1.137610I$ $a=\ \ 0.859804+0.727684I$ $b=-0.154559-0.651543I$	$-5.50240+2.99475I$	0
$u=\ \ 0.639397+1.206910I$ $a=\ \ 0.80533+1.35613I$ $b=\ \ 0.574051-1.246420I$	$1.53831+9.29794I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.639397 - 1.206910I$ $a = 0.80533 - 1.35613I$ $b = 0.574051 + 1.246420I$	$1.53831 - 9.29794I$	0
$u = -0.615226 + 0.147340I$ $a = 0.59285 + 1.56118I$ $b = 0.079632 - 1.202400I$	$2.74356 + 2.15031I$	0
$u = -0.615226 - 0.147340I$ $a = 0.59285 - 1.56118I$ $b = 0.079632 + 1.202400I$	$2.74356 - 2.15031I$	0
$u = -0.616358 + 0.136035I$ $a = -0.37068 - 1.54143I$ $b = 0.885019 + 0.222869I$	$-2.60549 + 2.58676I$	0
$u = -0.616358 - 0.136035I$ $a = -0.37068 + 1.54143I$ $b = 0.885019 - 0.222869I$	$-2.60549 - 2.58676I$	0
$u = 0.448702 + 1.296740I$ $a = 0.61956 + 1.30184I$ $b = 0.541357 - 0.773438I$	$-10.61730 - 3.84446I$	0
$u = 0.448702 - 1.296740I$ $a = 0.61956 - 1.30184I$ $b = 0.541357 + 0.773438I$	$-10.61730 + 3.84446I$	0
$u = 0.138283 + 1.367300I$ $a = 0.0340551 + 0.0011414I$ $b = -0.549064 - 0.768886I$	$-5.92838 - 3.92448I$	0
$u = 0.138283 - 1.367300I$ $a = 0.0340551 - 0.0011414I$ $b = -0.549064 + 0.768886I$	$-5.92838 + 3.92448I$	0
$u = -0.453160 + 1.300540I$ $a = 0.410646 - 0.229635I$ $b = 0.729160 - 0.310654I$	$-6.01867 - 4.77211I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.453160-1.300540I$ $a=\ 0.410646+0.229635I$ $b=\ 0.729160+0.310654I$	$-6.01867+4.77211I$	0
$u=\ 0.625310+1.229450I$ $a=-0.92902-1.32744I$ $b=-0.74318+1.27923I$	$-2.67509+13.82040I$	0
$u=\ 0.625310-1.229450I$ $a=-0.92902+1.32744I$ $b=-0.74318-1.27923I$	$-2.67509-13.82040I$	0
$u=-1.15823+0.81752I$ $a=\ 0.062390-1.136890I$ $b=-0.298608+0.988335I$	$0.79015-2.51030I$	0
$u=-1.15823-0.81752I$ $a=\ 0.062390+1.136890I$ $b=-0.298608-0.988335I$	$0.79015+2.51030I$	0
$u=-0.33335+1.38851I$ $a=\ 0.239322+0.117930I$ $b=-0.284084+0.671773I$	$-4.70929-1.88233I$	0
$u=-0.33335-1.38851I$ $a=\ 0.239322-0.117930I$ $b=-0.284084-0.671773I$	$-4.70929+1.88233I$	0
$u=\ 0.47591+1.35404I$ $a=-0.463534-1.075220I$ $b=-0.471261+1.136050I$	$-4.21809+2.02932I$	0
$u=\ 0.47591-1.35404I$ $a=-0.463534+1.075220I$ $b=-0.471261-1.136050I$	$-4.21809-2.02932I$	0
$u=\ 0.437705+0.355690I$ $a=\ 1.220230+0.405055I$ $b=-0.833237-0.221466I$	$-7.48740-2.70537I$	$-7.88083+1.30992I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.437705 - 0.355690I$ $a = 1.220230 - 0.405055I$ $b = -0.833237 + 0.221466I$	$-7.48740 + 2.70537I$	$-7.88083 - 1.30992I$
$u = 0.514969 + 0.229311I$ $a = -0.73740 - 1.46940I$ $b = 0.204497 - 0.221576I$	$-1.11767 + 3.99381I$	$-4.41433 - 5.84845I$
$u = 0.514969 - 0.229311I$ $a = -0.73740 + 1.46940I$ $b = 0.204497 + 0.221576I$	$-1.11767 - 3.99381I$	$-4.41433 + 5.84845I$
$u = -0.201183 + 0.520989I$ $a = 0.35420 - 2.97037I$ $b = -0.302486 + 1.319040I$	$-2.62996 + 6.52516I$	$-61.024072 + 0.10I$
$u = -0.201183 - 0.520989I$ $a = 0.35420 + 2.97037I$ $b = -0.302486 - 1.319040I$	$-2.62996 - 6.52516I$	$-61.024072 + 0.10I$
$u = 0.13559 + 1.44059I$ $a = 0.387737 + 0.563233I$ $b = 0.330025 + 0.807183I$	$-9.25451 + 4.68011I$	0
$u = 0.13559 - 1.44059I$ $a = 0.387737 - 0.563233I$ $b = 0.330025 - 0.807183I$	$-9.25451 - 4.68011I$	0
$u = -0.62339 + 1.30971I$ $a = -0.931218 + 0.988311I$ $b = -0.629501 - 1.112880I$	$-2.05664 - 8.60447I$	0
$u = -0.62339 - 1.30971I$ $a = -0.931218 - 0.988311I$ $b = -0.629501 + 1.112880I$	$-2.05664 + 8.60447I$	0
$u = -0.65324 + 1.31649I$ $a = 0.88776 - 1.28013I$ $b = 0.70755 + 1.26938I$	$-7.3426 - 20.1757I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.65324-1.31649I$ $a=\ \ 0.88776+1.28013I$ $b=\ \ 0.70755-1.26938I$	$-7.3426+20.1757I$	0
$u=-0.521703+0.055696I$ $a=\ \ 0.941070-0.793438I$ $b=-0.264700-0.036218I$	$1.317900-0.509813I$	$5.22413+0.64924I$
$u=-0.521703-0.055696I$ $a=\ \ 0.941070+0.793438I$ $b=-0.264700+0.036218I$	$1.317900+0.509813I$	$5.22413-0.64924I$
$u=-0.69637+1.31088I$ $a=-0.69483+1.26304I$ $b=-0.596783-1.254270I$	$-1.64907-13.67180I$	0
$u=-0.69637-1.31088I$ $a=-0.69483-1.26304I$ $b=-0.596783+1.254270I$	$-1.64907+13.67180I$	0
$u=\ \ 0.75692+1.29037I$ $a=-0.76666-1.23280I$ $b=-0.510781+0.996997I$	$-1.50335+7.43116I$	0
$u=\ \ 0.75692-1.29037I$ $a=-0.76666+1.23280I$ $b=-0.510781-0.996997I$	$-1.50335-7.43116I$	0
$u=\ \ 0.042673+0.486265I$ $a=-3.09137+0.09842I$ $b=\ \ 0.014752-0.730940I$	$-1.04074+3.88371I$	$-4.76438-3.94591I$
$u=\ \ 0.042673-0.486265I$ $a=-3.09137-0.09842I$ $b=\ \ 0.014752+0.730940I$	$-1.04074-3.88371I$	$-4.76438+3.94591I$
$u=\ \ 0.58883+1.43183I$ $a=\ \ 1.05854+1.02995I$ $b=\ \ 0.559517-1.122400I$	$-3.67408+9.67751I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.58883 - 1.43183I$ $a = 1.05854 - 1.02995I$ $b = 0.559517 + 1.122400I$	$-3.67408 - 9.67751I$	0
$u = -0.93650 + 1.23508I$ $a = 0.23115 - 1.43002I$ $b = 0.399501 + 1.090830I$	$-5.47512 - 4.50475I$	0
$u = -0.93650 - 1.23508I$ $a = 0.23115 + 1.43002I$ $b = 0.399501 - 1.090830I$	$-5.47512 + 4.50475I$	0
$u = -0.24250 + 1.58273I$ $a = 0.004550 + 0.298601I$ $b = 0.516139 - 0.849885I$	$-10.39630 + 8.10898I$	0
$u = -0.24250 - 1.58273I$ $a = 0.004550 - 0.298601I$ $b = 0.516139 + 0.849885I$	$-10.39630 - 8.10898I$	0
$u = 0.351215$ $a = 0.875886$ $b = 0.452159$	-0.916788	-12.2520
$u = 0.40660 + 1.64881I$ $a = -0.211239 - 0.428444I$ $b = 0.161074 + 0.538146I$	$-7.56751 + 1.49112I$	0
$u = 0.40660 - 1.64881I$ $a = -0.211239 + 0.428444I$ $b = 0.161074 - 0.538146I$	$-7.56751 - 1.49112I$	0

II.

$\boldsymbol{I_2^u = \langle 2.05\times 10^{50}u^{48}+1.66\times 10^{50}u^{47}+\cdots+1.22\times 10^{49}b+6.37\times 10^{50},\ 2.72\times 10^{51}u^{48}+1.14\times 10^{51}u^{47}+\cdots+8.55\times 10^{49}a+3.51\times 10^{52},\ u^{49}+u^{48}+\cdots-19u-7\rangle}$

(i) Arc colorings

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

$$a_{12} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -31.8601u^{48} - 13.2732u^{47} + \cdots - 701.141u - 409.905 \\ -16.7439u^{48} - 13.6016u^{47} + \cdots + 176.720u - 52.1131 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -48.6040u^{48} - 26.8748u^{47} + \cdots - 524.421u - 462.018 \\ -16.7439u^{48} - 13.6016u^{47} + \cdots + 176.720u - 52.1131 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -74.7946u^{48} - 93.1595u^{47} + \cdots + 1582.12u + 153.170 \\ 47.0653u^{48} + 52.4638u^{47} + \cdots - 1126.47u - 202.952 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 26.5966u^{48} + 65.4840u^{47} + \cdots - 1700.34u - 499.814 \\ -44.0935u^{48} - 14.5164u^{47} + \cdots - 51.8761u - 276.299 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -80.4605u^{48} - 48.5265u^{47} + \cdots + 88.1419u - 425.666 \\ 42.8928u^{48} + 29.3440u^{47} + \cdots - 63.0539u + 164.568 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 84.9938u^{48} + 116.386u^{47} + \cdots - 2636.03u - 485.202 \\ -42.6546u^{48} - 52.3570u^{47} + \cdots + 899.086u + 94.6871 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 17.9851u^{48} + 86.2723u^{47} + \cdots - 2419.08u - 855.631 \\ -33.3887u^{48} - 18.6789u^{47} + \cdots + 168.545u - 126.281 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 59.7682u^{48} + 77.2252u^{47} + \cdots - 2081.96u - 444.114 \\ -13.6193u^{48} - 9.10587u^{47} + \cdots - 291.476u - 258.412 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -29.1972u^{48} - 67.2609u^{47} + \cdots + 1827.64u + 890.181$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{49} - 3u^{48} + \cdots - 5u - 1$
c_2	$u^{49} + 3u^{48} + \cdots + 16u - 1$
c_3	$u^{49} - 16u^{47} + \cdots + 33u - 7$
c_4	$u^{49} - u^{48} + \cdots + 6u + 1$
c_5	$u^{49} - 3u^{48} + \cdots + 16u + 1$
c_6	$u^{49} + u^{48} + \cdots + 113u + 19$
c_7	$u^{49} - u^{48} + \cdots - 19u + 7$
c_8	$u^{49} + 3u^{48} + \cdots - 103u + 11$
c_9	$u^{49} - 16u^{47} + \cdots + 33u + 7$
c_{10}	$u^{49} + 3u^{48} + \cdots + 6u - 1$
c_{11}	$u^{49} + u^{48} + \cdots + 6u - 1$
c_{12}	$u^{49} + u^{48} + \cdots - 19u - 7$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{49} - 23y^{48} + \cdots - 47y - 1$
c_2, c_5	$y^{49} - 47y^{48} + \cdots + 134y - 1$
c_3, c_9	$y^{49} - 32y^{48} + \cdots + 2139y - 49$
c_4, c_{11}	$y^{49} + 29y^{48} + \cdots - 14y - 1$
c_6	$y^{49} + 9y^{48} + \cdots - 4939y - 361$
c_7, c_{12}	$y^{49} + 29y^{48} + \cdots - 1389y - 49$
c_8	$y^{49} - 27y^{48} + \cdots - 1271y - 121$
c_{10}	$y^{49} - 3y^{48} + \cdots + 4y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.145413+0.984757I$ $a=\ 0.692419-0.221008I$ $b=\ 1.45320-0.36527I$	$-9.88670-2.40913I$	$-7.37310+5.87816I$
$u=-0.145413-0.984757I$ $a=\ 0.692419+0.221008I$ $b=\ 1.45320+0.36527I$	$-9.88670+2.40913I$	$-7.37310-5.87816I$
$u=-0.136496+0.966404I$ $a=-0.152643+0.213169I$ $b=-1.51616-0.00786I$	$-9.80517+1.25916I$	$-9.18622+2.86670I$
$u=-0.136496-0.966404I$ $a=-0.152643-0.213169I$ $b=-1.51616+0.00786I$	$-9.80517-1.25916I$	$-9.18622-2.86670I$
$u=-0.273853+0.885339I$ $a=-2.07320+1.70523I$ $b=-0.07577-1.52542I$	$1.97383-1.21726I$	$-26.7048-7.9600I$
$u=-0.273853-0.885339I$ $a=-2.07320-1.70523I$ $b=-0.07577+1.52542I$	$1.97383+1.21726I$	$-26.7048+7.9600I$
$u=\ 1.039050+0.322459I$ $a=-0.21623-1.81335I$ $b=-0.210334+0.923626I$	$0.10844+4.99992I$	$0.-9.67782I$
$u=\ 1.039050-0.322459I$ $a=-0.21623+1.81335I$ $b=-0.210334-0.923626I$	$0.10844-4.99992I$	$0.+9.67782I$
$u=-0.476392+0.716842I$ $a=\ 1.13314-1.49944I$ $b=\ 0.079706+1.407610I$	$3.90117-1.98259I$	$7.25000+3.65588I$
$u=-0.476392-0.716842I$ $a=\ 1.13314+1.49944I$ $b=\ 0.079706-1.407610I$	$3.90117+1.98259I$	$7.25000-3.65588I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.159670+0.011697I$ $a=\ 0.19300+1.53872I$ $b=\ 0.389386-0.994492I$	$2.19173+2.85777I$	$0.-5.88476I$
$u=-1.159670-0.011697I$ $a=\ 0.19300-1.53872I$ $b=\ 0.389386+0.994492I$	$2.19173-2.85777I$	$0.+5.88476I$
$u=\ 0.503019+1.052430I$ $a=-1.36398-0.71779I$ $b=-0.426360+0.857247I$	$-0.88439+5.69502I$	0
$u=\ 0.503019-1.052430I$ $a=-1.36398+0.71779I$ $b=-0.426360-0.857247I$	$-0.88439-5.69502I$	0
$u=\ 0.261487+0.761298I$ $a=\ 3.54570+2.06115I$ $b=\ 0.172737-0.685641I$	$-6.64044+7.21451I$	$-3.44281-11.03718I$
$u=\ 0.261487-0.761298I$ $a=\ 3.54570-2.06115I$ $b=\ 0.172737+0.685641I$	$-6.64044-7.21451I$	$-3.44281+11.03718I$
$u=\ 1.129220+0.485630I$ $a=\ 0.142470-1.202770I$ $b=\ 0.222890+0.810587I$	$1.167480+0.164247I$	0
$u=\ 1.129220-0.485630I$ $a=\ 0.142470+1.202770I$ $b=\ 0.222890-0.810587I$	$1.167480-0.164247I$	0
$u=-0.277396+0.706983I$ $a=\ 1.69487-0.38093I$ $b=\ 0.743421+0.807311I$	$1.10449-1.95390I$	$0.94830+8.61120I$
$u=-0.277396-0.706983I$ $a=\ 1.69487+0.38093I$ $b=\ 0.743421-0.807311I$	$1.10449+1.95390I$	$0.94830-8.61120I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.189311 + 1.242770I$ $a = -0.441452 - 0.281117I$ $b = 0.278403 - 0.144604I$	$-5.03945 + 2.68308I$	0
$u = 0.189311 - 1.242770I$ $a = -0.441452 + 0.281117I$ $b = 0.278403 + 0.144604I$	$-5.03945 - 2.68308I$	0
$u = -0.226796 + 0.682779I$ $a = -0.395557 - 0.515617I$ $b = -0.29912 + 1.44039I$	$1.15811 - 2.11752I$	$1.98891 - 0.96903I$
$u = -0.226796 - 0.682779I$ $a = -0.395557 + 0.515617I$ $b = -0.29912 - 1.44039I$	$1.15811 + 2.11752I$	$1.98891 + 0.96903I$
$u = 0.319256 + 1.242370I$ $a = 1.32948 + 0.82232I$ $b = 0.480030 - 1.247290I$	$-5.87744 + 8.43475I$	0
$u = 0.319256 - 1.242370I$ $a = 1.32948 - 0.82232I$ $b = 0.480030 + 1.247290I$	$-5.87744 - 8.43475I$	0
$u = 0.633280 + 1.116010I$ $a = -0.39961 - 1.55767I$ $b = -0.416706 + 1.168310I$	$-4.77702 + 3.78634I$	0
$u = 0.633280 - 1.116010I$ $a = -0.39961 + 1.55767I$ $b = -0.416706 - 1.168310I$	$-4.77702 - 3.78634I$	0
$u = 0.013783 + 0.708507I$ $a = -3.17848 + 0.37654I$ $b = -0.517600 - 0.574500I$	$-2.64910 - 1.68575I$	$-7.54708 + 5.17658I$
$u = 0.013783 - 0.708507I$ $a = -3.17848 - 0.37654I$ $b = -0.517600 + 0.574500I$	$-2.64910 + 1.68575I$	$-7.54708 - 5.17658I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.690167$ $a = 0.292471$ $b = 0.495674$	-0.177330	1.09660
$u = 0.451563 + 1.242990I$ $a = -0.221639 - 0.065522I$ $b = -0.848540 - 0.446166I$	$-4.01131 + 4.14840I$	0
$u = 0.451563 - 1.242990I$ $a = -0.221639 + 0.065522I$ $b = -0.848540 + 0.446166I$	$-4.01131 - 4.14840I$	0
$u = -1.069040 + 0.786022I$ $a = 0.059544 - 0.893896I$ $b = -0.288242 + 0.981577I$	$0.47127 - 2.97754I$	0
$u = -1.069040 - 0.786022I$ $a = 0.059544 + 0.893896I$ $b = -0.288242 - 0.981577I$	$0.47127 + 2.97754I$	0
$u = 0.013234 + 0.668664I$ $a = 1.32809 + 1.73453I$ $b = -0.202570 - 1.390430I$	$-3.09310 - 6.94018I$	$-8.67242 + 7.67414I$
$u = 0.013234 - 0.668664I$ $a = 1.32809 - 1.73453I$ $b = -0.202570 + 1.390430I$	$-3.09310 + 6.94018I$	$-8.67242 - 7.67414I$
$u = -0.876265 + 1.038470I$ $a = 0.23890 - 1.68501I$ $b = 0.348944 + 1.021620I$	$-4.61693 - 5.12310I$	0
$u = -0.876265 - 1.038470I$ $a = 0.23890 + 1.68501I$ $b = 0.348944 - 1.021620I$	$-4.61693 + 5.12310I$	0
$u = 0.009897 + 1.371210I$ $a = 1.150640 - 0.228989I$ $b = 0.062215 - 0.579369I$	$-9.42537 - 5.82460I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.009897 - 1.371210I$ $a = 1.150640 + 0.228989I$ $b = 0.062215 + 0.579369I$	$-9.42537 + 5.82460I$	0
$u = 0.531520 + 1.293490I$ $a = -0.466892 - 0.208694I$ $b = 0.382215 + 0.693947I$	$-5.62811 + 2.05742I$	0
$u = 0.531520 - 1.293490I$ $a = -0.466892 + 0.208694I$ $b = 0.382215 - 0.693947I$	$-5.62811 - 2.05742I$	0
$u = -0.264021 + 0.379958I$ $a = 1.32260 - 1.93082I$ $b = 0.165529 + 1.278910I$	$3.73943 - 2.06937I$	$2.12971 + 3.63885I$
$u = -0.264021 - 0.379958I$ $a = 1.32260 + 1.93082I$ $b = 0.165529 - 1.278910I$	$3.73943 + 2.06937I$	$2.12971 - 3.63885I$
$u = -0.67250 + 1.38326I$ $a = -0.912706 + 1.066400I$ $b = -0.601050 - 1.095840I$	$-2.04163 - 9.46743I$	0
$u = -0.67250 - 1.38326I$ $a = -0.912706 - 1.066400I$ $b = -0.601050 + 1.095840I$	$-2.04163 + 9.46743I$	0
$u = -0.36187 + 1.57770I$ $a = 0.273864 - 0.132870I$ $b = -0.124059 + 0.690585I$	$-7.14849 - 1.44751I$	0
$u = -0.36187 - 1.57770I$ $a = 0.273864 + 0.132870I$ $b = -0.124059 - 0.690585I$	$-7.14849 + 1.44751I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{49}-3u^{48}+\cdots-5u-1)$ $\cdot(u^{168}-16u^{167}+\cdots-7296363u-2529737)$
c_2	$(u^{49}+3u^{48}+\cdots+16u-1)$ $\cdot(u^{168}+4u^{167}+\cdots-16865158u-846613)$
c_3	$(u^{49}-16u^{47}+\cdots+33u-7)(u^{168}+u^{167}+\cdots-150117u+83053)$
c_4	$(u^{49}-u^{48}+\cdots+6u+1)(u^{168}+2u^{167}+\cdots-1178u-1129)$
c_5	$(u^{49}-3u^{48}+\cdots+16u+1)$ $\cdot(u^{168}+4u^{167}+\cdots-16865158u-846613)$
c_6	$(u^{49}+u^{48}+\cdots+113u+19)$ $\cdot(u^{168}+12u^{167}+\cdots+4386421103u+2616924533)$
c_7	$(u^{49}-u^{48}+\cdots-19u+7)(u^{168}-2u^{167}+\cdots-5047u-12491)$
c_8	$(u^{49}+3u^{48}+\cdots-103u+11)$ $\cdot(u^{168}+16u^{167}+\cdots-1222355035u-68295775)$
c_9	$(u^{49}-16u^{47}+\cdots+33u+7)(u^{168}+u^{167}+\cdots-150117u+83053)$
c_{10}	$(u^{49}+3u^{48}+\cdots+6u-1)(u^{168}-4u^{167}+\cdots-1722u-677)$
c_{11}	$(u^{49}+u^{48}+\cdots+6u-1)(u^{168}+2u^{167}+\cdots-1178u-1129)$
c_{12}	$(u^{49}+u^{48}+\cdots-19u-7)(u^{168}-2u^{167}+\cdots-5047u-12491)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{49} - 23y^{48} + \cdots - 47y - 1)$ $\cdot (y^{168} - 32y^{167} + \cdots + 548413938838239y + 6399569289169)$
c_2, c_5	$(y^{49} - 47y^{48} + \cdots + 134y - 1)$ $\cdot (y^{168} - 140y^{167} + \cdots - 42252653628006y + 716753571769)$
c_3, c_9	$(y^{49} - 32y^{48} + \cdots + 2139y - 49)$ $\cdot (y^{168} - 117y^{167} + \cdots - 182975736347y + 6897800809)$
c_4, c_{11}	$(y^{49} + 29y^{48} + \cdots - 14y - 1)$ $\cdot (y^{168} + 88y^{167} + \cdots + 25277038y + 1274641)$
c_6	$(y^{49} + 9y^{48} + \cdots - 4939y - 361)$ $\cdot (y^{168} + 64y^{167} + \cdots + 1.24 \times 10^{20}y + 6.85 \times 10^{18})$
c_7, c_{12}	$(y^{49} + 29y^{48} + \cdots - 1389y - 49)$ $\cdot (y^{168} + 96y^{167} + \cdots + 5492077293y + 156025081)$
c_8	$(y^{49} - 27y^{48} + \cdots - 1271y - 121)$ $\cdot (y^{168} + 4y^{167} + \cdots - 21823179596653325y + 4664312882850625)$
c_{10}	$(y^{49} - 3y^{48} + \cdots + 4y - 1)(y^{168} + 8y^{167} + \cdots + 1.97332 \times 10^{7}y + 458329)$