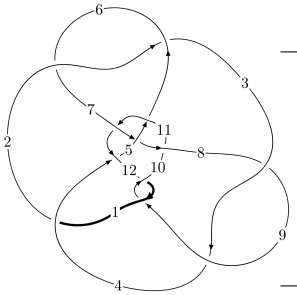
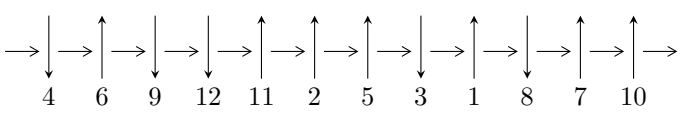
$12a_{0935}$ $(K12a_{0935})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 7.81900 \times 10^{985} u^{183} - 7.88716 \times 10^{985} u^{182} + \cdots + 6.01907 \times 10^{985} b + 2.13399 \times 10^{986},$$
$$4.35696 \times 10^{986} u^{183} + 3.78145 \times 10^{985} u^{182} + \cdots + 6.01907 \times 10^{985} a + 4.67662 \times 10^{986},\ u^{184} + u^{183} + \cdots + 2$$
$$I_2^u = \langle 4.73987 \times 10^{39} u^{49} + 1.08770 \times 10^{39} u^{48} + \cdots + 2.55091 \times 10^{37} b - 7.03667 \times 10^{39},$$
$$1.73292 \times 10^{39} u^{49} + 8.72064 \times 10^{38} u^{48} + \cdots + 2.55091 \times 10^{37} a - 5.63180 \times 10^{39},\ u^{50} + 11 u^{48} + \cdots - 3u -$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 234 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. $\boldsymbol{I_1^u = \langle 7.82 \times 10^{985} u^{183} - 7.89 \times 10^{985} u^{182} + \cdots + 6.02 \times 10^{985} b + 2.13 \times 10^{986},\ 4.36 \times 10^{986} u^{183} + 3.78 \times 10^{985} u^{182} + \cdots + 6.02 \times 10^{985} a + 4.68 \times 10^{986},\ u^{184} + u^{183} + \cdots + 2u - 1 \rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -7.23859u^{183} - 0.628245u^{182} + \cdots + 31.4824u - 7.76968 \\ -1.29904u^{183} + 1.31036u^{182} + \cdots + 10.0813u - 3.54539 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -10.0540u^{183} - 0.950916u^{182} + \cdots + 45.4239u - 11.7706 \\ -4.11442u^{183} + 0.987693u^{182} + \cdots + 24.0228u - 7.54633 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.794746u^{183} - 1.61012u^{182} + \cdots - 35.6727u + 4.52522 \\ 0.0710340u^{183} - 0.574077u^{182} + \cdots - 12.3695u + 0.280865 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 9.63510u^{183} + 10.4622u^{182} + \cdots - 24.9001u - 3.41375 \\ 5.88424u^{183} + 5.16103u^{182} + \cdots - 14.7093u - 0.478162 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 8.94054u^{183} + 10.3815u^{182} + \cdots - 18.1718u - 3.76267 \\ 5.58760u^{183} + 5.26207u^{182} + \cdots - 12.7870u - 1.09202 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -4.44465u^{183} - 7.51045u^{182} + \cdots + 5.62935u + 5.70928 \\ -3.45874u^{183} - 3.75085u^{182} + \cdots + 9.20127u + 1.27427 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -21.0857u^{183} - 26.4945u^{182} + \cdots - 0.618143u + 16.9348 \\ -12.0198u^{183} - 12.1542u^{182} + \cdots + 11.9164u + 3.30388 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 24.0006u^{183} + 7.84552u^{182} + \cdots - 102.839u + 29.2947 \\ 6.94557u^{183} - 0.574113u^{182} + \cdots - 38.7545u + 13.4882 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -23.1352u^{183} - 21.1220u^{182} + \cdots + 42.3192u + 9.71975$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{184} - 4u^{183} + \cdots - 71040737947u + 8873630559$
c_2, c_6	$u^{184} - u^{183} + \cdots - 2u - 1$
c_3, c_8	$u^{184} + u^{183} + \cdots - 123190029u + 17977599$
c_4	$u^{184} + 3u^{183} + \cdots - 822455u - 157289$
c_5	$u^{184} + u^{183} + \cdots - 22u - 3$
c_7	$u^{184} + 17u^{183} + \cdots + 108u + 49$
c_9, c_{12}	$u^{184} - 14u^{183} + \cdots - 244560u + 39592$
c_{10}	$u^{184} - 13u^{183} + \cdots + 4409u - 1081$
c_{11}	$u^{184} - 5u^{183} + \cdots - 57u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{184} - 48y^{183} + \cdots - 2.97 \times 10^{21}y + 7.87 \times 10^{19}$
c_2, c_6	$y^{184} + 95y^{183} + \cdots + 52y + 1$
c_3, c_8	$y^{184} - 145y^{183} + \cdots - 6975999890891991y + 323194065804801$
c_4	$y^{184} + 57y^{183} + \cdots + 1925713891789y + 24739829521$
c_5	$y^{184} - 11y^{183} + \cdots - 1072y + 9$
c_7	$y^{184} - 9y^{183} + \cdots - 210604y + 2401$
c_9, c_{12}	$y^{184} + 120y^{183} + \cdots + 108376113824y + 1567526464$
c_{10}	$y^{184} + 19y^{183} + \cdots + 407531937y + 1168561$
c_{11}	$y^{184} - 31y^{183} + \cdots - 179y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.328666 + 0.923922I$ $a = -0.337659 - 0.238911I$ $b = -0.170979 - 1.240740I$	$-4.23227 - 3.34748I$	0
$u = 0.328666 - 0.923922I$ $a = -0.337659 + 0.238911I$ $b = -0.170979 + 1.240740I$	$-4.23227 + 3.34748I$	0
$u = 0.281174 + 0.982315I$ $a = 0.359990 + 0.210848I$ $b = 1.29550 + 1.10202I$	$-5.73999 - 1.00560I$	0
$u = 0.281174 - 0.982315I$ $a = 0.359990 - 0.210848I$ $b = 1.29550 - 1.10202I$	$-5.73999 + 1.00560I$	0
$u = 0.932460 + 0.245380I$ $a = 0.837280 - 1.035300I$ $b = 0.0984925 + 0.0643776I$	$1.61224 - 8.91293I$	0
$u = 0.932460 - 0.245380I$ $a = 0.837280 + 1.035300I$ $b = 0.0984925 - 0.0643776I$	$1.61224 + 8.91293I$	0
$u = 0.954235 + 0.402904I$ $a = -0.620648 + 1.058490I$ $b = -0.0242627 - 0.0856250I$	$4.31278 - 4.19799I$	0
$u = 0.954235 - 0.402904I$ $a = -0.620648 - 1.058490I$ $b = -0.0242627 + 0.0856250I$	$4.31278 + 4.19799I$	0
$u = 1.017440 + 0.228660I$ $a = 0.401725 + 0.757657I$ $b = 0.317209 + 0.836250I$	$1.02142 + 3.54450I$	0
$u = 1.017440 - 0.228660I$ $a = 0.401725 - 0.757657I$ $b = 0.317209 - 0.836250I$	$1.02142 - 3.54450I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.742133+0.569313I$ $a=\ \ 0.882782+0.587740I$ $b=\ \ 0.027380+0.526989I$	$-0.90654-2.78152I$	0
$u=-0.742133-0.569313I$ $a=\ \ 0.882782-0.587740I$ $b=\ \ 0.027380-0.526989I$	$-0.90654+2.78152I$	0
$u=-0.395282+0.997311I$ $a=\ \ 0.914452+0.863382I$ $b=\ \ 1.63177+0.10048I$	$-2.21984-0.05198I$	0
$u=-0.395282-0.997311I$ $a=\ \ 0.914452-0.863382I$ $b=\ \ 1.63177-0.10048I$	$-2.21984+0.05198I$	0
$u=-0.516582+0.945564I$ $a=\ \ 0.49283-1.74278I$ $b=\ \ 0.82041-1.17844I$	$1.36616-1.84748I$	0
$u=-0.516582-0.945564I$ $a=\ \ 0.49283+1.74278I$ $b=\ \ 0.82041+1.17844I$	$1.36616+1.84748I$	0
$u=-0.479603+0.784159I$ $a=-0.897211-0.596535I$ $b=-0.744257-0.439217I$	$-1.61001-2.03708I$	0
$u=-0.479603-0.784159I$ $a=-0.897211+0.596535I$ $b=-0.744257+0.439217I$	$-1.61001+2.03708I$	0
$u=-0.407113+1.008750I$ $a=-0.98531+1.47233I$ $b=-1.52746+1.13774I$	$-2.18677-5.95841I$	0
$u=-0.407113-1.008750I$ $a=-0.98531-1.47233I$ $b=-1.52746-1.13774I$	$-2.18677+5.95841I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.386401 + 0.817211I$ $a = -0.203956 + 0.830260I$ $b = -0.159541 - 1.196870I$	$2.45806 + 0.61893I$	0
$u = 0.386401 - 0.817211I$ $a = -0.203956 - 0.830260I$ $b = -0.159541 + 1.196870I$	$2.45806 - 0.61893I$	0
$u = -1.046150 + 0.332738I$ $a = -0.1227220 + 0.0159749I$ $b = 0.424953 - 0.507347I$	$0.29483 - 2.54882I$	0
$u = -1.046150 - 0.332738I$ $a = -0.1227220 - 0.0159749I$ $b = 0.424953 + 0.507347I$	$0.29483 + 2.54882I$	0
$u = 0.305621 + 0.839689I$ $a = 0.451118 - 0.745475I$ $b = 0.53162 + 1.38599I$	$-0.04717 + 5.21582I$	0
$u = 0.305621 - 0.839689I$ $a = 0.451118 + 0.745475I$ $b = 0.53162 - 1.38599I$	$-0.04717 - 5.21582I$	0
$u = 0.102778 + 1.102560I$ $a = -0.289562 - 0.337758I$ $b = -0.915694 - 0.515381I$	$-1.38744 - 1.57426I$	0
$u = 0.102778 - 1.102560I$ $a = -0.289562 + 0.337758I$ $b = -0.915694 + 0.515381I$	$-1.38744 + 1.57426I$	0
$u = -0.836195 + 0.738359I$ $a = -0.022615 - 0.420518I$ $b = 0.530676 - 0.335424I$	$0.53731 - 2.71696I$	0
$u = -0.836195 - 0.738359I$ $a = -0.022615 + 0.420518I$ $b = 0.530676 + 0.335424I$	$0.53731 + 2.71696I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.058620+0.359379I$ $a=-0.629799+0.183331I$ $b=\ \ 0.0755610+0.0941588I$	$2.95384-4.28359I$	0
$u=-1.058620-0.359379I$ $a=-0.629799-0.183331I$ $b=\ \ 0.0755610-0.0941588I$	$2.95384+4.28359I$	0
$u=-0.234597+1.093200I$ $a=\ \ 0.855601+0.763460I$ $b=\ \ 2.06976+0.90235I$	$-5.95286-2.79198I$	0
$u=-0.234597-1.093200I$ $a=\ \ 0.855601-0.763460I$ $b=\ \ 2.06976-0.90235I$	$-5.95286+2.79198I$	0
$u=-0.875789+0.085333I$ $a=\ \ 0.980339-0.393564I$ $b=-0.003387-0.152822I$	$2.58017-0.01612I$	0
$u=-0.875789-0.085333I$ $a=\ \ 0.980339+0.393564I$ $b=-0.003387+0.152822I$	$2.58017+0.01612I$	0
$u=-0.716125+0.500928I$ $a=-0.751351-0.879330I$ $b=\ \ 0.160617-0.584912I$	$0.14160-2.74021I$	0
$u=-0.716125-0.500928I$ $a=-0.751351+0.879330I$ $b=\ \ 0.160617+0.584912I$	$0.14160+2.74021I$	0
$u=-0.076671+0.866866I$ $a=-0.24748-1.49759I$ $b=-1.209750-0.282047I$	$-4.71081+1.61436I$	0
$u=-0.076671-0.866866I$ $a=-0.24748+1.49759I$ $b=-1.209750+0.282047I$	$-4.71081-1.61436I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.439982+1.046660I$ $a=-1.268990-0.479427I$ $b=-1.88839-0.77911I$	$-0.87427-3.56380I$	0
$u=-0.439982-1.046660I$ $a=-1.268990+0.479427I$ $b=-1.88839+0.77911I$	$-0.87427+3.56380I$	0
$u=-0.559459+0.990612I$ $a=1.076900+0.316696I$ $b=1.35625+0.67086I$	$-1.22853-2.11504I$	0
$u=-0.559459-0.990612I$ $a=1.076900-0.316696I$ $b=1.35625-0.67086I$	$-1.22853+2.11504I$	0
$u=0.048454+0.848204I$ $a=-0.779682-1.070800I$ $b=-1.145820+0.165807I$	$-1.66325-2.67840I$	0
$u=0.048454-0.848204I$ $a=-0.779682+1.070800I$ $b=-1.145820-0.165807I$	$-1.66325+2.67840I$	0
$u=0.684155+0.497669I$ $a=0.404608+0.408649I$ $b=-0.174427+0.086705I$	$-1.73029-0.93389I$	0
$u=0.684155-0.497669I$ $a=0.404608-0.408649I$ $b=-0.174427-0.086705I$	$-1.73029+0.93389I$	0
$u=0.098377+0.839720I$ $a=-0.405353+1.132110I$ $b=0.260415-1.036450I$	$-3.45130+5.18108I$	0
$u=0.098377-0.839720I$ $a=-0.405353-1.132110I$ $b=0.260415+1.036450I$	$-3.45130-5.18108I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.234639+1.136980I$ $a=-0.392035-0.377420I$ $b=-0.875694-0.346315I$	$-1.33306-1.70403I$	0
$u=-0.234639-1.136980I$ $a=-0.392035+0.377420I$ $b=-0.875694+0.346315I$	$-1.33306+1.70403I$	0
$u=-0.367582+1.122900I$ $a=-1.116720-0.536632I$ $b=-1.94737-0.92939I$	$-1.12999-3.80246I$	0
$u=-0.367582-1.122900I$ $a=-1.116720+0.536632I$ $b=-1.94737+0.92939I$	$-1.12999+3.80246I$	0
$u=0.605279+1.015050I$ $a=-0.999021+0.169632I$ $b=-2.33491+0.60399I$	$-3.63955+7.18297I$	0
$u=0.605279-1.015050I$ $a=-0.999021-0.169632I$ $b=-2.33491-0.60399I$	$-3.63955-7.18297I$	0
$u=0.260915+0.765957I$ $a=-0.036896+0.185567I$ $b=-2.10271+0.45733I$	$0.21605-2.34849I$	0
$u=0.260915-0.765957I$ $a=-0.036896-0.185567I$ $b=-2.10271-0.45733I$	$0.21605+2.34849I$	0
$u=0.537647+1.072600I$ $a=1.317540-0.141462I$ $b=2.34754-0.83714I$	$-2.86655+9.64651I$	0
$u=0.537647-1.072600I$ $a=1.317540+0.141462I$ $b=2.34754+0.83714I$	$-2.86655-9.64651I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.333919+0.717506I$		
$a=$	$0.268066-0.342195I$	$2.78920+2.76787I$	0
$b=$	$2.59020-0.47265I$		
$u=$	$0.333919-0.717506I$		
$a=$	$0.268066+0.342195I$	$2.78920-2.76787I$	0
$b=$	$2.59020+0.47265I$		
$u=$	$-0.333894+1.167410I$		
$a=$	$1.129530+0.411509I$	$-2.07419-7.73209I$	0
$b=$	$2.00594+1.02466I$		
$u=$	$-0.333894-1.167410I$		
$a=$	$1.129530-0.411509I$	$-2.07419+7.73209I$	0
$b=$	$2.00594-1.02466I$		
$u=$	$0.501635+1.108730I$		
$a=$	$-1.353990+0.309421I$	$-1.99883+8.46741I$	0
$b=$	$-2.23528+0.81907I$		
$u=$	$0.501635-1.108730I$		
$a=$	$-1.353990-0.309421I$	$-1.99883-8.46741I$	0
$b=$	$-2.23528-0.81907I$		
$u=$	$-0.419293+1.144830I$		
$a=$	$-0.812068+0.252464I$	$-8.69619-9.59606I$	0
$b=$	$-2.07568-0.85191I$		
$u=$	$-0.419293-1.144830I$		
$a=$	$-0.812068-0.252464I$	$-8.69619+9.59606I$	0
$b=$	$-2.07568+0.85191I$		
$u=$	$0.640452+0.434618I$		
$a=$	$-0.46007+1.69091I$	$-0.97778-5.02063I$	0
$b=$	$0.486726+0.141249I$		
$u=$	$0.640452-0.434618I$		
$a=$	$-0.46007-1.69091I$	$-0.97778+5.02063I$	0
$b=$	$0.486726-0.141249I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.028026+0.762209I$ $a=-0.34995+2.09230I$ $b=\ \ 0.049671+0.551414I$	$1.20764+2.00995I$	0
$u=-0.028026-0.762209I$ $a=-0.34995-2.09230I$ $b=\ \ 0.049671-0.551414I$	$1.20764-2.00995I$	0
$u=\ \ 0.435567+1.158280I$ $a=-0.49408-1.76943I$ $b=-0.89729-1.21336I$	$-5.86458+11.37010I$	0
$u=\ \ 0.435567-1.158280I$ $a=-0.49408+1.76943I$ $b=-0.89729+1.21336I$	$-5.86458-11.37010I$	0
$u=-1.014410+0.720047I$ $a=\ \ 0.239715+1.213540I$ $b=\ \ 0.0238577+0.1296900I$	$-5.33470+0.59771I$	0
$u=-1.014410-0.720047I$ $a=\ \ 0.239715-1.213540I$ $b=\ \ 0.0238577-0.1296900I$	$-5.33470-0.59771I$	0
$u=-0.410857+1.178470I$ $a=\ \ 0.375001+0.455285I$ $b=\ \ 1.18080-1.41938I$	$-6.47721-10.97930I$	0
$u=-0.410857-1.178470I$ $a=\ \ 0.375001-0.455285I$ $b=\ \ 1.18080+1.41938I$	$-6.47721+10.97930I$	0
$u=-0.644231+0.372872I$ $a=\ \ 0.447550-0.173413I$ $b=-1.267090+0.225983I$	$-5.33586-6.28246I$	0
$u=-0.644231-0.372872I$ $a=\ \ 0.447550+0.173413I$ $b=-1.267090-0.225983I$	$-5.33586+6.28246I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.438705 + 1.177180I$ $a = -1.54908 + 0.43391I$ $b = -2.10095 + 0.63619I$	$-2.94278 + 7.44361I$	0
$u = 0.438705 - 1.177180I$ $a = -1.54908 - 0.43391I$ $b = -2.10095 - 0.63619I$	$-2.94278 - 7.44361I$	0
$u = -0.382326 + 1.197740I$ $a = 0.721448 + 0.109899I$ $b = 2.03743 + 0.82252I$	$-4.22919 - 6.26560I$	0
$u = -0.382326 - 1.197740I$ $a = 0.721448 - 0.109899I$ $b = 2.03743 - 0.82252I$	$-4.22919 + 6.26560I$	0
$u = -0.033716 + 0.738210I$ $a = 0.84910 - 1.98834I$ $b = 0.574428 - 0.270139I$	$0.24310 + 6.09666I$	0
$u = -0.033716 - 0.738210I$ $a = 0.84910 + 1.98834I$ $b = 0.574428 + 0.270139I$	$0.24310 - 6.09666I$	0
$u = 0.529876 + 1.145710I$ $a = -0.708720 - 0.047149I$ $b = -1.72054 - 0.23689I$	$-7.39934 + 3.53210I$	0
$u = 0.529876 - 1.145710I$ $a = -0.708720 + 0.047149I$ $b = -1.72054 + 0.23689I$	$-7.39934 - 3.53210I$	0
$u = 0.442939 + 1.182310I$ $a = 0.866422 + 0.102242I$ $b = 2.17875 - 0.05556I$	$-7.80553 + 4.86185I$	0
$u = 0.442939 - 1.182310I$ $a = 0.866422 - 0.102242I$ $b = 2.17875 + 0.05556I$	$-7.80553 - 4.86185I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.393652 + 1.211750I$ $a = 0.21775 + 1.75107I$ $b = 0.443968 + 1.025100I$	$-0.87631 + 4.82402I$	0
$u = 0.393652 - 1.211750I$ $a = 0.21775 - 1.75107I$ $b = 0.443968 - 1.025100I$	$-0.87631 - 4.82402I$	0
$u = -0.087241 + 0.719984I$ $a = -2.34275 + 0.61256I$ $b = -2.33447 + 0.79117I$	$-0.53378 + 3.17236I$	0
$u = -0.087241 - 0.719984I$ $a = -2.34275 - 0.61256I$ $b = -2.33447 - 0.79117I$	$-0.53378 - 3.17236I$	0
$u = -0.748779 + 1.038760I$ $a = 0.365359 - 0.150185I$ $b = 0.770047 - 0.017026I$	$0.40911 - 2.74174I$	0
$u = -0.748779 - 1.038760I$ $a = 0.365359 + 0.150185I$ $b = 0.770047 + 0.017026I$	$0.40911 + 2.74174I$	0
$u = -1.229120 + 0.362344I$ $a = 0.465705 + 0.983824I$ $b = -0.0368071 - 0.0127765I$	$-3.4044 + 14.3626I$	0
$u = -1.229120 - 0.362344I$ $a = 0.465705 - 0.983824I$ $b = -0.0368071 + 0.0127765I$	$-3.4044 - 14.3626I$	0
$u = 0.466760 + 1.194170I$ $a = 1.33115 - 0.73487I$ $b = 2.18556 - 0.70231I$	$-9.5040 + 10.9406I$	0
$u = 0.466760 - 1.194170I$ $a = 1.33115 + 0.73487I$ $b = 2.18556 + 0.70231I$	$-9.5040 - 10.9406I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.558332 + 1.161560I$ $a = 0.443192 + 0.167744I$ $b = 0.501884 + 0.269382I$	$-2.20499 - 1.02816I$	0
$u = 0.558332 - 1.161560I$ $a = 0.443192 - 0.167744I$ $b = 0.501884 - 0.269382I$	$-2.20499 + 1.02816I$	0
$u = -0.285330 + 1.258170I$ $a = -0.637101 - 0.450925I$ $b = -1.89429 - 1.05798I$	$-6.47059 - 5.52853I$	0
$u = -0.285330 - 1.258170I$ $a = -0.637101 + 0.450925I$ $b = -1.89429 + 1.05798I$	$-6.47059 + 5.52853I$	0
$u = 0.149208 + 0.690518I$ $a = 0.91398 - 1.08084I$ $b = 0.507391 + 0.855322I$	$-0.72543 + 4.34633I$	0
$u = 0.149208 - 0.690518I$ $a = 0.91398 + 1.08084I$ $b = 0.507391 - 0.855322I$	$-0.72543 - 4.34633I$	0
$u = -0.387714 + 1.234250I$ $a = -0.270639 - 0.660009I$ $b = -0.655789 + 1.049870I$	$-1.42165 - 5.04521I$	0
$u = -0.387714 - 1.234250I$ $a = -0.270639 + 0.660009I$ $b = -0.655789 - 1.049870I$	$-1.42165 + 5.04521I$	0
$u = -0.531578 + 1.185050I$ $a = 0.372724 + 0.181043I$ $b = 1.17027 - 0.84612I$	$-7.86948 + 1.40734I$	0
$u = -0.531578 - 1.185050I$ $a = 0.372724 - 0.181043I$ $b = 1.17027 + 0.84612I$	$-7.86948 - 1.40734I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.431204 + 1.225640I$ $a = 1.319220 + 0.005708I$ $b = 1.65394 - 0.15921I$	$-2.77505 + 1.47441I$	0
$u = 0.431204 - 1.225640I$ $a = 1.319220 - 0.005708I$ $b = 1.65394 + 0.15921I$	$-2.77505 - 1.47441I$	0
$u = -0.626526 + 0.312049I$ $a = -1.17416 + 0.87841I$ $b = -2.10004 - 0.32376I$	$-2.84820 - 7.42093I$	0
$u = -0.626526 - 0.312049I$ $a = -1.17416 - 0.87841I$ $b = -2.10004 + 0.32376I$	$-2.84820 + 7.42093I$	0
$u = 0.680546 + 0.036182I$ $a = -1.43002 - 1.24968I$ $b = -0.722558 - 0.480001I$	$-6.14873 + 6.63023I$	0
$u = 0.680546 - 0.036182I$ $a = -1.43002 + 1.24968I$ $b = -0.722558 + 0.480001I$	$-6.14873 - 6.63023I$	0
$u = 0.678918 + 0.002816I$ $a = -0.217258 + 1.174120I$ $b = 0.149928 - 0.325133I$	$-4.46591 - 0.70645I$	0
$u = 0.678918 - 0.002816I$ $a = -0.217258 - 1.174120I$ $b = 0.149928 + 0.325133I$	$-4.46591 + 0.70645I$	0
$u = 0.504277 + 0.453511I$ $a = 0.16964 - 1.44820I$ $b = -0.346566 + 0.366879I$	$-2.28472 - 2.65617I$	0
$u = 0.504277 - 0.453511I$ $a = 0.16964 + 1.44820I$ $b = -0.346566 - 0.366879I$	$-2.28472 + 2.65617I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.475985 + 1.235950I$ $a = -0.856491 - 0.678835I$ $b = -1.260310 - 0.622777I$	$-9.45377 - 2.03390I$	0
$u = 0.475985 - 1.235950I$ $a = -0.856491 + 0.678835I$ $b = -1.260310 + 0.622777I$	$-9.45377 + 2.03390I$	0
$u = 0.621220 + 1.187460I$ $a = 1.041710 - 0.347191I$ $b = 2.18949 - 0.71861I$	$1.81905 + 9.95689I$	0
$u = 0.621220 - 1.187460I$ $a = 1.041710 + 0.347191I$ $b = 2.18949 + 0.71861I$	$1.81905 - 9.95689I$	0
$u = -0.486092 + 1.258670I$ $a = -0.384993 - 0.183344I$ $b = -1.46208 + 0.06014I$	$-3.25832 - 3.00238I$	0
$u = -0.486092 - 1.258670I$ $a = -0.384993 + 0.183344I$ $b = -1.46208 - 0.06014I$	$-3.25832 + 3.00238I$	0
$u = -0.121481 + 0.637178I$ $a = 0.42518 + 2.34989I$ $b = 0.526236 + 1.049380I$	$1.005360 + 0.434589I$	0
$u = -0.121481 - 0.637178I$ $a = 0.42518 - 2.34989I$ $b = 0.526236 - 1.049380I$	$1.005360 - 0.434589I$	0
$u = 0.579713 + 1.222030I$ $a = -1.045860 + 0.425970I$ $b = -2.20744 + 0.77329I$	$-1.3828 + 14.4203I$	0
$u = 0.579713 - 1.222030I$ $a = -1.045860 - 0.425970I$ $b = -2.20744 - 0.77329I$	$-1.3828 - 14.4203I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.560736+1.238130I$		
$a=$	$0.33357-1.37575I$	$-5.06328-2.93367I$	0
$b=$	$0.457247-0.403555I$		
$u=$	$0.560736-1.238130I$		
$a=$	$0.33357+1.37575I$	$-5.06328+2.93367I$	0
$b=$	$0.457247+0.403555I$		
$u=$	$-0.381854+1.309230I$		
$a=$	$0.483878+0.316618I$	$-5.21829-6.30403I$	0
$b=$	$1.57718+0.83332I$		
$u=$	$-0.381854-1.309230I$		
$a=$	$0.483878-0.316618I$	$-5.21829+6.30403I$	0
$b=$	$1.57718-0.83332I$		
$u=$	$-0.586489+1.234750I$		
$a=$	$-0.161095+0.910798I$	$-5.35813+2.29755I$	0
$b=$	$-0.587222-0.434167I$		
$u=$	$-0.586489-1.234750I$		
$a=$	$-0.161095-0.910798I$	$-5.35813-2.29755I$	0
$b=$	$-0.587222+0.434167I$		
$u=$	$0.532139+0.339530I$		
$a=$	$0.78760-1.92564I$	$0.25837-4.18569I$	0
$b=$	$-0.279614-0.480796I$		
$u=$	$0.532139-0.339530I$		
$a=$	$0.78760+1.92564I$	$0.25837+4.18569I$	0
$b=$	$-0.279614+0.480796I$		
$u=$	$0.424533+0.457543I$		
$a=$	$-0.601128+0.966135I$	$-2.78160+7.86072I$	0
$b=$	$-2.62729+0.33199I$		
$u=$	$0.424533-0.457543I$		
$a=$	$-0.601128-0.966135I$	$-2.78160-7.86072I$	0
$b=$	$-2.62729-0.33199I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.299930 + 1.348740I$ $a = 0.307734 + 0.389827I$ $b = 0.717305 + 0.570666I$	$-3.42562 - 4.81037I$	0
$u = 0.299930 - 1.348740I$ $a = 0.307734 - 0.389827I$ $b = 0.717305 - 0.570666I$	$-3.42562 + 4.81037I$	0
$u = -0.009285 + 1.387790I$ $a = 0.911430 - 0.342162I$ $b = 1.72700 - 0.63436I$	$-13.06760 - 2.06050I$	0
$u = -0.009285 - 1.387790I$ $a = 0.911430 + 0.342162I$ $b = 1.72700 + 0.63436I$	$-13.06760 + 2.06050I$	0
$u = -0.364258 + 0.491297I$ $a = 2.18850 - 0.87635I$ $b = 2.21922 - 0.25619I$	$2.57513 - 2.17826I$	0
$u = -0.364258 - 0.491297I$ $a = 2.18850 + 0.87635I$ $b = 2.21922 + 0.25619I$	$2.57513 + 2.17826I$	0
$u = -1.340200 + 0.442820I$ $a = -0.350239 - 0.961117I$ $b = 0.0265961 - 0.0214565I$	$1.12294 + 7.63354I$	0
$u = -1.340200 - 0.442820I$ $a = -0.350239 + 0.961117I$ $b = 0.0265961 + 0.0214565I$	$1.12294 - 7.63354I$	0
$u = 0.54172 + 1.31098I$ $a = -0.793555 + 0.067582I$ $b = -1.72633 + 0.19276I$	$-7.18117 + 3.46375I$	0
$u = 0.54172 - 1.31098I$ $a = -0.793555 - 0.067582I$ $b = -1.72633 - 0.19276I$	$-7.18117 - 3.46375I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.43372 + 0.24567I$ $a = 0.150656 - 0.565626I$ $b = -0.0073340 + 0.0463185I$	$-3.04370 + 3.26515I$	0
$u = 1.43372 - 0.24567I$ $a = 0.150656 + 0.565626I$ $b = -0.0073340 - 0.0463185I$	$-3.04370 - 3.26515I$	0
$u = 0.79036 + 1.22142I$ $a = 0.571387 - 0.080867I$ $b = 1.091120 - 0.114019I$	$-3.21763 + 7.33631I$	0
$u = 0.79036 - 1.22142I$ $a = 0.571387 + 0.080867I$ $b = 1.091120 + 0.114019I$	$-3.21763 - 7.33631I$	0
$u = -0.70331 + 1.29448I$ $a = -1.106360 - 0.296809I$ $b = -2.21950 - 0.64052I$	$-6.4156 - 21.1557I$	0
$u = -0.70331 - 1.29448I$ $a = -1.106360 + 0.296809I$ $b = -2.21950 + 0.64052I$	$-6.4156 + 21.1557I$	0
$u = 1.47992$ $a = 1.25035$ $b = 2.31492$	4.37762	0
$u = -0.64482 + 1.34748I$ $a = -0.274879 - 0.147474I$ $b = -0.703282 - 0.402575I$	$-1.52586 - 5.48848I$	0
$u = -0.64482 - 1.34748I$ $a = -0.274879 + 0.147474I$ $b = -0.703282 + 0.402575I$	$-1.52586 + 5.48848I$	0
$u = -0.73398 + 1.32142I$ $a = 1.094620 + 0.279510I$ $b = 2.15652 + 0.58388I$	$-1.8697 - 14.8720I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.73398-1.32142I$ $a=\ 1.094620-0.279510I$ $b=\ 2.15652-0.58388I$	$-1.8697+14.8720I$	0
$u=\ 0.13874+1.51266I$ $a=-0.855324+0.186569I$ $b=-1.69591+0.43417I$	$-7.77783+2.76114I$	0
$u=\ 0.13874-1.51266I$ $a=-0.855324-0.186569I$ $b=-1.69591-0.43417I$	$-7.77783-2.76114I$	0
$u=-0.86516+1.25205I$ $a=-1.131250-0.221950I$ $b=-2.18588-0.41943I$	$-6.83508-7.82853I$	0
$u=-0.86516-1.25205I$ $a=-1.131250+0.221950I$ $b=-2.18588+0.41943I$	$-6.83508+7.82853I$	0
$u=\ 0.79129+1.31224I$ $a=-0.553306+0.165597I$ $b=-1.049560+0.356361I$	$-6.7736+12.5061I$	0
$u=\ 0.79129-1.31224I$ $a=-0.553306-0.165597I$ $b=-1.049560-0.356361I$	$-6.7736-12.5061I$	0
$u=-1.54495$ $a=\ 1.04997$ $b=\ 2.27159$	4.12895	0
$u=\ 1.28041+0.97788I$ $a=-0.127772-0.161756I$ $b=-0.0725560-0.0134018I$	$-4.59353-4.59420I$	0
$u=\ 1.28041-0.97788I$ $a=-0.127772+0.161756I$ $b=-0.0725560+0.0134018I$	$-4.59353+4.59420I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.01737+1.61759I$ $a=\ \ 0.721751-0.207824I$ $b=\ \ 1.47941-0.44915I$	$-11.0891+9.1802I$	0
$u=-0.01737-1.61759I$ $a=\ \ 0.721751+0.207824I$ $b=\ \ 1.47941+0.44915I$	$-11.0891-9.1802I$	0
$u=-0.056667+0.364599I$ $a=-1.79478+1.99428I$ $b=-1.31241-0.99237I$	$-5.84036+6.42157I$	$-6.50283-7.08750I$
$u=-0.056667-0.364599I$ $a=-1.79478-1.99428I$ $b=-1.31241+0.99237I$	$-5.84036-6.42157I$	$-6.50283+7.08750I$
$u=-0.367161+0.021594I$ $a=\ \ 2.38105+0.67609I$ $b=\ \ 0.410158+0.339605I$	$1.341490+0.260034I$	$8.08018-0.36010I$
$u=-0.367161-0.021594I$ $a=\ \ 2.38105-0.67609I$ $b=\ \ 0.410158-0.339605I$	$1.341490-0.260034I$	$8.08018+0.36010I$
$u=\ \ 0.280458+0.237248I$ $a=\ \ 1.22026-2.94290I$ $b=-0.272947-0.974716I$	$0.14519-3.92695I$	$4.54903+6.35739I$
$u=\ \ 0.280458-0.237248I$ $a=\ \ 1.22026+2.94290I$ $b=-0.272947+0.974716I$	$0.14519+3.92695I$	$4.54903-6.35739I$
$u=-0.295649+0.049688I$ $a=-0.71478-2.85769I$ $b=-1.019320-0.393889I$	$-0.06780-2.95860I$	$2.64101+4.26437I$
$u=-0.295649-0.049688I$ $a=-0.71478+2.85769I$ $b=-1.019320+0.393889I$	$-0.06780+2.95860I$	$2.64101-4.26437I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.212153 + 0.098592I$ $a = -3.40214 - 2.30592I$ $b = -2.48630 + 0.62101I$	$-2.85425 - 7.75924I$	$8.58633 + 5.61559I$
$u = 0.212153 - 0.098592I$ $a = -3.40214 + 2.30592I$ $b = -2.48630 - 0.62101I$	$-2.85425 + 7.75924I$	$8.58633 - 5.61559I$
$u = -0.036843 + 0.185102I$ $a = 4.82062 - 1.56314I$ $b = 1.95759 - 1.02958I$	$2.49486 - 2.18042I$	$9.71403 - 2.99560I$
$u = -0.036843 - 0.185102I$ $a = 4.82062 + 1.56314I$ $b = 1.95759 + 1.02958I$	$2.49486 + 2.18042I$	$9.71403 + 2.99560I$

II. $I_2^u =$
$\langle \mathbf{4.74\times10^{39}u^{49}+1.09\times10^{39}u^{48}+\cdots+2.55\times10^{37}b-7.04\times10^{39},\ 1.73\times10^{39}u^{49}+8.72\times10^{38}u^{48}+\cdots+2.55\times10^{37}a-5.63\times10^{39},\ u^{50}+11u^{48}+\cdots-3u-1}\rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_6 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_3 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_7 = \begin{pmatrix}u\\u\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-67.9334u^{49}-34.1864u^{48}+\cdots+683.170u+220.776\\-185.811u^{49}-42.6397u^{48}+\cdots+1200.50u+275.850\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}-27.9405u^{49}-34.5330u^{48}+\cdots+539.933u+212.323\\-145.818u^{49}-42.9863u^{48}+\cdots+1057.26u+267.396\end{pmatrix}$$
$$a_5 = \begin{pmatrix}13.5587u^{49}+17.3451u^{48}+\cdots-286.224u-148.001\\38.9066u^{49}-16.9715u^{48}+\cdots-111.942u-43.9213\end{pmatrix}$$
$$a_8 = \begin{pmatrix}23.7797u^{49}-66.3102u^{48}+\cdots+277.180u+211.433\\-36.1519u^{49}+14.5509u^{48}+\cdots+25.2987u+25.8393\end{pmatrix}$$
$$a_9 = \begin{pmatrix}46.0551u^{49}-94.2234u^{48}+\cdots+427.033u+251.903\\-20.8778u^{49}-2.80492u^{48}+\cdots+86.7631u+53.7526\end{pmatrix}$$
$$a_4 = \begin{pmatrix}-127.068u^{49}+108.289u^{48}+\cdots-275.283u-252.540\\50.3715u^{49}+41.3419u^{48}+\cdots-359.296u-96.9338\end{pmatrix}$$
$$a_1 = \begin{pmatrix}55.6720u^{49}-25.1811u^{48}+\cdots+85.3437u+176.744\\-98.1535u^{49}-3.95321u^{48}+\cdots+306.071u+47.2524\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}23.1558u^{49}-29.2941u^{48}+\cdots-198.985u+32.1204\\-108.278u^{49}-25.9694u^{48}+\cdots+596.049u+136.726\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -221.739u^{49}+57.4222u^{48}+\cdots+1695.90u+57.7020$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{50} - 15u^{49} + \cdots - 336u + 73$
c_2	$u^{50} + 11u^{48} + \cdots - 3u - 1$
c_3	$u^{50} - 2u^{49} + \cdots - 6u + 1$
c_4	$u^{50} + 16u^{48} + \cdots - 2u - 13$
c_5	$u^{50} - 8u^{48} + \cdots + u - 1$
c_6	$u^{50} + 11u^{48} + \cdots + 3u - 1$
c_7	$u^{50} - 2u^{49} + \cdots - 11u + 1$
c_8	$u^{50} + 2u^{49} + \cdots + 6u + 1$
c_9	$u^{50} + 15u^{49} + \cdots + 84u + 8$
c_{10}	$u^{50} + 6u^{49} + \cdots - 16u - 1$
c_{11}	$u^{50} - 16u^{48} + \cdots + 6u - 1$
c_{12}	$u^{50} - 15u^{49} + \cdots - 84u + 8$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{50} + 3y^{49} + \cdots - 93040y + 5329$
c_2, c_6	$y^{50} + 22y^{49} + \cdots + 37y + 1$
c_3, c_8	$y^{50} - 46y^{49} + \cdots - 38y + 1$
c_4	$y^{50} + 32y^{49} + \cdots + 1582y + 169$
c_5	$y^{50} - 16y^{49} + \cdots + 29y + 1$
c_7	$y^{50} + 2y^{49} + \cdots - 23y + 1$
c_9, c_{12}	$y^{50} + 27y^{49} + \cdots + 1136y + 64$
c_{10}	$y^{50} + 6y^{49} + \cdots - 34y + 1$
c_{11}	$y^{50} - 32y^{49} + \cdots - 10y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.311314+0.961299I$ $a=-1.260280-0.212570I$ $b=-1.69903-0.69233I$	$-1.71505-4.81287I$	$0.+7.72941I$
$u=-0.311314-0.961299I$ $a=-1.260280+0.212570I$ $b=-1.69903+0.69233I$	$-1.71505+4.81287I$	$0.-7.72941I$
$u=-0.491983+0.820271I$ $a=-0.08617-1.46946I$ $b=\ \ 0.344328-0.851474I$	$1.03095-2.07390I$	$2.00000+5.52885I$
$u=-0.491983-0.820271I$ $a=-0.08617+1.46946I$ $b=\ \ 0.344328+0.851474I$	$1.03095+2.07390I$	$2.00000-5.52885I$
$u=-0.856383+0.401483I$ $a=\ \ 0.389445-0.648763I$ $b=\ \ 0.652773-0.905898I$	$2.14362-3.24414I$	$7.89410+5.39245I$
$u=-0.856383-0.401483I$ $a=\ \ 0.389445+0.648763I$ $b=\ \ 0.652773+0.905898I$	$2.14362+3.24414I$	$7.89410-5.39245I$
$u=\ \ 0.921310+0.026987I$ $a=-0.855716+0.848061I$ $b=\ \ 0.120560+0.229680I$	$1.37009-5.25079I$	$4.09436+7.50320I$
$u=\ \ 0.921310-0.026987I$ $a=-0.855716-0.848061I$ $b=\ \ 0.120560-0.229680I$	$1.37009+5.25079I$	$4.09436-7.50320I$
$u=-0.524277+0.724032I$ $a=\ \ 0.55769+1.37341I$ $b=\ \ 0.795311-0.011131I$	$-3.52888+0.75637I$	$-0.732769-1.153097I$
$u=-0.524277-0.724032I$ $a=\ \ 0.55769-1.37341I$ $b=\ \ 0.795311+0.011131I$	$-3.52888-0.75637I$	$-0.732769+1.153097I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.706071 + 0.891806I$ $a = -1.219190 + 0.096103I$ $b = -2.46538 + 0.50636I$	$-4.92503 + 8.29512I$	0
$u = 0.706071 - 0.891806I$ $a = -1.219190 - 0.096103I$ $b = -2.46538 - 0.50636I$	$-4.92503 - 8.29512I$	0
$u = 0.107748 + 0.842915I$ $a = -0.678808 + 1.122350I$ $b = -0.562760 - 0.615922I$	$-1.29972 + 4.52723I$	$-5.99278 - 6.25358I$
$u = 0.107748 - 0.842915I$ $a = -0.678808 - 1.122350I$ $b = -0.562760 + 0.615922I$	$-1.29972 - 4.52723I$	$-5.99278 + 6.25358I$
$u = -0.197529 + 0.788682I$ $a = -1.19282 + 0.78918I$ $b = -2.16341 + 0.11151I$	$-0.66103 + 2.57431I$	$0.749849 + 0.988331I$
$u = -0.197529 - 0.788682I$ $a = -1.19282 - 0.78918I$ $b = -2.16341 - 0.11151I$	$-0.66103 - 2.57431I$	$0.749849 - 0.988331I$
$u = -0.412671 + 1.113580I$ $a = -0.540685 + 0.250252I$ $b = -0.927252 - 0.237950I$	$-1.93667 - 4.94547I$	0
$u = -0.412671 - 1.113580I$ $a = -0.540685 - 0.250252I$ $b = -0.927252 + 0.237950I$	$-1.93667 + 4.94547I$	0
$u = -0.492505 + 1.081080I$ $a = 0.961469 + 0.244037I$ $b = 1.240530 + 0.523267I$	$-0.22248 - 1.71492I$	0
$u = -0.492505 - 1.081080I$ $a = 0.961469 - 0.244037I$ $b = 1.240530 - 0.523267I$	$-0.22248 + 1.71492I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.487128 + 1.121800I$ $a = 1.317400 - 0.262848I$ $b = 2.26371 - 0.88299I$	$-1.72644 + 9.51152I$	0
$u = 0.487128 - 1.121800I$ $a = 1.317400 + 0.262848I$ $b = 2.26371 + 0.88299I$	$-1.72644 - 9.51152I$	0
$u = 0.356765 + 1.177710I$ $a = -0.260999 + 0.888201I$ $b = -0.248398 - 0.267878I$	$-2.04507 + 5.08327I$	0
$u = 0.356765 - 1.177710I$ $a = -0.260999 - 0.888201I$ $b = -0.248398 + 0.267878I$	$-2.04507 - 5.08327I$	0
$u = -1.082990 + 0.645786I$ $a = -0.362304 - 0.201159I$ $b = 0.144381 - 0.235859I$	$0.89404 - 2.69476I$	0
$u = -1.082990 - 0.645786I$ $a = -0.362304 + 0.201159I$ $b = 0.144381 + 0.235859I$	$0.89404 + 2.69476I$	0
$u = 0.456332 + 1.186530I$ $a = 0.123211 - 0.671669I$ $b = 0.271516 + 0.364515I$	$-6.95608 + 10.37330I$	0
$u = 0.456332 - 1.186530I$ $a = 0.123211 + 0.671669I$ $b = 0.271516 - 0.364515I$	$-6.95608 - 10.37330I$	0
$u = -0.302571 + 1.244330I$ $a = 0.580494 + 0.304297I$ $b = 1.77607 + 1.04415I$	$-5.81695 - 6.06858I$	0
$u = -0.302571 - 1.244330I$ $a = 0.580494 - 0.304297I$ $b = 1.77607 - 1.04415I$	$-5.81695 + 6.06858I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.425760+1.235110I$ $a=-0.704285-0.359723I$ $b=-1.96648-0.73246I$	$-5.70718-4.92426I$	0
$u=-0.425760-1.235110I$ $a=-0.704285+0.359723I$ $b=-1.96648+0.73246I$	$-5.70718+4.92426I$	0
$u=-0.008165+0.691333I$ $a=\ \ 0.56308-1.33676I$ $b=\ \ 0.119390+1.158080I$	$-3.13476+4.72994I$	$1.004141-0.516519I$
$u=-0.008165-0.691333I$ $a=\ \ 0.56308+1.33676I$ $b=\ \ 0.119390-1.158080I$	$-3.13476-4.72994I$	$1.004141+0.516519I$
$u=-0.210061+0.622572I$ $a=\ \ 1.136170-0.813731I$ $b=\ \ 2.42003-0.63428I$	$2.20086-2.53041I$	$-1.00937+8.63488I$
$u=-0.210061-0.622572I$ $a=\ \ 1.136170+0.813731I$ $b=\ \ 2.42003+0.63428I$	$2.20086+2.53041I$	$-1.00937-8.63488I$
$u=-1.37605$ $a=\ \ 1.22902$ $b=\ \ 2.36409$	4.57078	0
$u=\ \ 0.455870+1.306860I$ $a=-0.326369-0.113765I$ $b=-0.570951-0.415211I$	$-2.26106-1.36420I$	0
$u=\ \ 0.455870-1.306860I$ $a=-0.326369+0.113765I$ $b=-0.570951+0.415211I$	$-2.26106+1.36420I$	0
$u=\ \ 0.670768+1.226860I$ $a=\ \ 0.019444-1.026060I$ $b=-0.054875+0.224017I$	$-5.97561-2.40304I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.670768 - 1.226860I$ $a = 0.019444 + 1.026060I$ $b = -0.054875 - 0.224017I$	$-5.97561 + 2.40304I$	0
$u = 0.211580 + 0.517270I$ $a = 0.36383 + 2.76930I$ $b = 0.568719 + 0.555516I$	$0.76429 - 5.92280I$	$8.72818 + 4.98523I$
$u = 0.211580 - 0.517270I$ $a = 0.36383 - 2.76930I$ $b = 0.568719 - 0.555516I$	$0.76429 + 5.92280I$	$8.72818 - 4.98523I$
$u = -0.030950 + 0.532122I$ $a = -1.33965 + 0.70106I$ $b = -3.24977 + 0.72633I$	$-3.21242 - 7.76874I$	$-14.0711 + 6.2265I$
$u = -0.030950 - 0.532122I$ $a = -1.33965 - 0.70106I$ $b = -3.24977 - 0.72633I$	$-3.21242 + 7.76874I$	$-14.0711 - 6.2265I$
$u = 1.05009 + 1.02803I$ $a = 0.060415 + 0.153440I$ $b = 0.036640 + 0.404618I$	$-4.47395 - 4.68220I$	0
$u = 1.05009 - 1.02803I$ $a = 0.060415 - 0.153440I$ $b = 0.036640 - 0.404618I$	$-4.47395 + 4.68220I$	0
$u = -0.187380 + 0.484980I$ $a = -1.40223 - 2.36655I$ $b = -0.148481 - 0.761387I$	$1.78652 - 2.28558I$	$9.94585 + 3.54508I$
$u = -0.187380 - 0.484980I$ $a = -1.40223 + 2.36655I$ $b = -0.148481 + 0.761387I$	$1.78652 + 2.28558I$	$9.94585 - 3.54508I$
$u = 1.59782$ $a = 1.08466$ $b = 2.24156$	3.99852	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{50}-15u^{49}+\cdots-336u+73)$ $\cdot(u^{184}-4u^{183}+\cdots-71040737947u+8873630559)$
c_2	$(u^{50}+11u^{48}+\cdots-3u-1)(u^{184}-u^{183}+\cdots-2u-1)$
c_3	$(u^{50}-2u^{49}+\cdots-6u+1)$ $\cdot(u^{184}+u^{183}+\cdots-123190029u+17977599)$
c_4	$(u^{50}+16u^{48}+\cdots-2u-13)(u^{184}+3u^{183}+\cdots-822455u-157289)$
c_5	$(u^{50}-8u^{48}+\cdots+u-1)(u^{184}+u^{183}+\cdots-22u-3)$
c_6	$(u^{50}+11u^{48}+\cdots+3u-1)(u^{184}-u^{183}+\cdots-2u-1)$
c_7	$(u^{50}-2u^{49}+\cdots-11u+1)(u^{184}+17u^{183}+\cdots+108u+49)$
c_8	$(u^{50}+2u^{49}+\cdots+6u+1)$ $\cdot(u^{184}+u^{183}+\cdots-123190029u+17977599)$
c_9	$(u^{50}+15u^{49}+\cdots+84u+8)(u^{184}-14u^{183}+\cdots-244560u+39592)$
c_{10}	$(u^{50}+6u^{49}+\cdots-16u-1)(u^{184}-13u^{183}+\cdots+4409u-1081)$
c_{11}	$(u^{50}-16u^{48}+\cdots+6u-1)(u^{184}-5u^{183}+\cdots-57u-1)$
c_{12}	$(u^{50}-15u^{49}+\cdots-84u+8)(u^{184}-14u^{183}+\cdots-244560u+39592)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{50}+3y^{49}+\cdots-93040y+5329)$ $\cdot(y^{184}-48y^{183}+\cdots-2.97\times10^{21}y+7.87\times10^{19})$
c_2, c_6	$(y^{50}+22y^{49}+\cdots+37y+1)(y^{184}+95y^{183}+\cdots+52y+1)$
c_3, c_8	$(y^{50}-46y^{49}+\cdots-38y+1)$ $\cdot(y^{184}-145y^{183}+\cdots-6975999890891991y+323194065804801)$
c_4	$(y^{50}+32y^{49}+\cdots+1582y+169)$ $\cdot(y^{184}+57y^{183}+\cdots+1925713891789y+24739829521)$
c_5	$(y^{50}-16y^{49}+\cdots+29y+1)(y^{184}-11y^{183}+\cdots-1072y+9)$
c_7	$(y^{50}+2y^{49}+\cdots-23y+1)(y^{184}-9y^{183}+\cdots-210604y+2401)$
c_9, c_{12}	$(y^{50}+27y^{49}+\cdots+1136y+64)$ $\cdot(y^{184}+120y^{183}+\cdots+108376113824y+1567526464)$
c_{10}	$(y^{50}+6y^{49}+\cdots-34y+1)$ $\cdot(y^{184}+19y^{183}+\cdots+407531937y+1168561)$
c_{11}	$(y^{50}-32y^{49}+\cdots-10y+1)(y^{184}-31y^{183}+\cdots-179y+1)$