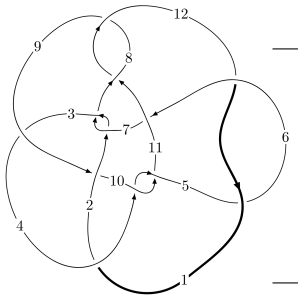
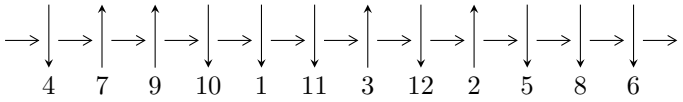
$12a_{1056}$ $(K12a_{1056})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -2.20589 \times 10^{861} u^{169} - 1.68317 \times 10^{862} u^{168} + \cdots + 3.92119 \times 10^{861} b - 1.07359 \times 10^{864},$$
$$- 2.08380 \times 10^{863} u^{169} - 1.48692 \times 10^{864} u^{168} + \cdots + 8.66583 \times 10^{863} a - 5.10383 \times 10^{865},$$
$$u^{170} + 8u^{169} + \cdots - 715u + 221 \rangle$$
$$I_2^u = \langle 2.87441 \times 10^{31} u^{46} + 1.04633 \times 10^{32} u^{45} + \cdots + 3.67466 \times 10^{29} b - 6.08288 \times 10^{31},$$
$$1.01354 \times 10^{31} u^{46} + 3.82828 \times 10^{31} u^{45} + \cdots + 3.67466 \times 10^{29} a - 1.99417 \times 10^{31},\ u^{47} + 3u^{46} + \cdots - u + 1 \rangle$$

* 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. $\boldsymbol{I_1^u = \langle -2.21 \times 10^{861} u^{169} - 1.68 \times 10^{862} u^{168} + \cdots + 3.92 \times 10^{861} b - 1.07 \times 10^{864},\ -2.08 \times 10^{863} u^{169} - 1.49 \times 10^{864} u^{168} + \cdots + 8.67 \times 10^{863} a - 5.10 \times 10^{865},\ u^{170} + 8u^{169} + \cdots - 715u + 221 \rangle}$

(i) Arc colorings

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

$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.240462u^{169} + 1.71584u^{168} + \cdots - 213.145u + 58.8960 \\ 0.562557u^{169} + 4.29249u^{168} + \cdots - 1443.71u + 273.792 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.345473u^{169} + 2.53056u^{168} + \cdots - 549.544u + 119.828 \\ 0.451916u^{169} + 3.44659u^{168} + \cdots - 1148.66u + 218.467 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.0758536u^{169} + 0.482857u^{168} + \cdots + 31.9502u + 1.29112 \\ 0.0670230u^{169} + 0.611089u^{168} + \cdots - 518.273u + 88.7818 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1.29316u^{169} + 9.38618u^{168} + \cdots - 1589.87u + 368.013 \\ 0.647019u^{169} + 4.85787u^{168} + \cdots - 1368.07u + 269.970 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.142877u^{169} + 1.09395u^{168} + \cdots - 486.322u + 90.0730 \\ 0.0670230u^{169} + 0.611089u^{168} + \cdots - 518.273u + 88.7818 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 3.05118u^{169} + 22.3493u^{168} + \cdots - 4601.86u + 988.759 \\ 1.73028u^{169} + 12.7494u^{168} + \cdots - 2868.52u + 600.253 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.317412u^{169} + 2.17686u^{168} + \cdots - 245.983u + 62.9293 \\ -1.04715u^{169} - 7.63752u^{168} + \cdots + 1595.46u - 335.601 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.896039u^{169} - 6.43983u^{168} + \cdots + 1252.55u - 271.632 \\ -0.841413u^{169} - 6.23424u^{168} + \cdots + 1470.83u - 307.080 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.513757u^{169} - 3.30789u^{168} + \cdots - 410.609u + 24.5051$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{170} - 14u^{169} + \cdots + 18u - 1$
c_2, c_7	$u^{170} + u^{169} + \cdots - 42944u + 1984$
c_3	$u^{170} - u^{169} + \cdots - 276535005u - 23926117$
c_4, c_{10}	$u^{170} + u^{169} + \cdots + 60040u - 6379$
c_5, c_{12}	$u^{170} + 2u^{169} + \cdots + 6420u - 35591$
c_6	$u^{170} - u^{169} + \cdots + 9130974u + 5572759$
c_8, c_{11}	$u^{170} + 8u^{169} + \cdots - 715u + 221$
c_9	$u^{170} + 3u^{169} + \cdots + 811454u + 271819$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{170} + 6y^{169} + \cdots - 760y + 1$
c_2, c_7	$y^{170} - 93y^{169} + \cdots - 827236352y + 3936256$
c_3	$y^{170} - 41y^{169} + \cdots - 46800698030178335y + 572459074697689$
c_4, c_{10}	$y^{170} - 113y^{169} + \cdots - 1618495822y + 40691641$
c_5, c_{12}	$y^{170} + 118y^{169} + \cdots + 25027873906y + 1266719281$
c_6	$y^{170} - 9y^{169} + \cdots + 1788240547802984y + 31055642872081$
c_8, c_{11}	$y^{170} - 88y^{169} + \cdots + 1304511y + 48841$
c_9	$y^{170} + 43y^{169} + \cdots + 6707969409918y + 73885568761$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.806491 + 0.602217I$ $a = -0.642128 + 0.983618I$ $b = 0.19143 - 1.76020I$	$7.48922 - 0.81335I$	0
$u = 0.806491 - 0.602217I$ $a = -0.642128 - 0.983618I$ $b = 0.19143 + 1.76020I$	$7.48922 + 0.81335I$	0
$u = -0.923484 + 0.347149I$ $a = 1.12852 - 1.00215I$ $b = -0.674725 + 0.109848I$	$-5.16258 - 1.55018I$	0
$u = -0.923484 - 0.347149I$ $a = 1.12852 + 1.00215I$ $b = -0.674725 - 0.109848I$	$-5.16258 + 1.55018I$	0
$u = 0.141671 + 0.976038I$ $a = -0.488385 + 1.125170I$ $b = -0.03831 - 1.42440I$	$3.36613 + 3.99327I$	0
$u = 0.141671 - 0.976038I$ $a = -0.488385 - 1.125170I$ $b = -0.03831 + 1.42440I$	$3.36613 - 3.99327I$	0
$u = 0.956886 + 0.364577I$ $a = 1.035210 - 0.734016I$ $b = -0.30003 + 2.40004I$	$2.92615 - 8.39267I$	0
$u = 0.956886 - 0.364577I$ $a = 1.035210 + 0.734016I$ $b = -0.30003 - 2.40004I$	$2.92615 + 8.39267I$	0
$u = 0.798269 + 0.554483I$ $a = -1.29539 + 0.66106I$ $b = -0.907230 - 0.822265I$	$7.53091 - 3.76031I$	0
$u = 0.798269 - 0.554483I$ $a = -1.29539 - 0.66106I$ $b = -0.907230 + 0.822265I$	$7.53091 + 3.76031I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.831602+0.494310I$ $a=-1.48201-0.73010I$ $b=-0.840353+1.057020I$	$4.31538+8.41906I$	0
$u=-0.831602-0.494310I$ $a=-1.48201+0.73010I$ $b=-0.840353-1.057020I$	$4.31538-8.41906I$	0
$u=-0.338787+0.978329I$ $a=-0.007267-0.513671I$ $b=-0.80769+1.41151I$	$3.70858+2.48023I$	0
$u=-0.338787-0.978329I$ $a=-0.007267+0.513671I$ $b=-0.80769-1.41151I$	$3.70858-2.48023I$	0
$u=-0.802710+0.530461I$ $a=-0.947896-1.022750I$ $b=0.15648+1.76490I$	$4.38227-4.26234I$	0
$u=-0.802710-0.530461I$ $a=-0.947896+1.022750I$ $b=0.15648-1.76490I$	$4.38227+4.26234I$	0
$u=-1.044890+0.163904I$ $a=-0.738916-0.484622I$ $b=-0.99773+1.59669I$	$-1.66846+0.48444I$	0
$u=-1.044890-0.163904I$ $a=-0.738916+0.484622I$ $b=-0.99773-1.59669I$	$-1.66846-0.48444I$	0
$u=-0.414758+0.845908I$ $a=0.183797-1.029530I$ $b=0.40704+1.83699I$	$0.96077+6.50241I$	0
$u=-0.414758-0.845908I$ $a=0.183797+1.029530I$ $b=0.40704-1.83699I$	$0.96077-6.50241I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.158664+1.046010I$ $a=-0.605569-1.030360I$ $b=\ \ 0.236176+1.351120I$	$-0.85216-7.75918I$	0
$u=-0.158664-1.046010I$ $a=-0.605569+1.030360I$ $b=\ \ 0.236176-1.351120I$	$-0.85216+7.75918I$	0
$u=\ \ 0.834299+0.650852I$ $a=-0.098909+1.187020I$ $b=-1.35369-1.59644I$	$-3.52491-5.82721I$	0
$u=\ \ 0.834299-0.650852I$ $a=-0.098909-1.187020I$ $b=-1.35369+1.59644I$	$-3.52491+5.82721I$	0
$u=-1.018280+0.313229I$ $a=\ \ 0.828726+0.572675I$ $b=-1.02081-1.92324I$	$4.88864+3.76517I$	0
$u=-1.018280-0.313229I$ $a=\ \ 0.828726-0.572675I$ $b=-1.02081+1.92324I$	$4.88864-3.76517I$	0
$u=\ \ 0.224394+0.906655I$ $a=-0.559436-0.349460I$ $b=\ \ 0.096076+0.954016I$	$4.22731+2.52538I$	0
$u=\ \ 0.224394-0.906655I$ $a=-0.559436+0.349460I$ $b=\ \ 0.096076-0.954016I$	$4.22731-2.52538I$	0
$u=\ \ 1.036580+0.282285I$ $a=-0.811496+0.728701I$ $b=-1.43074-1.60823I$	$-6.33389-5.42778I$	0
$u=\ \ 1.036580-0.282285I$ $a=-0.811496-0.728701I$ $b=-1.43074+1.60823I$	$-6.33389+5.42778I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.366311+1.028260I$ $a=-0.601079-0.608587I$ $b=-0.376946+0.702967I$	$1.11850+2.49775I$	0
$u=-0.366311-1.028260I$ $a=-0.601079+0.608587I$ $b=-0.376946-0.702967I$	$1.11850-2.49775I$	0
$u=0.955413+0.535542I$ $a=-1.031710-0.527843I$ $b=0.492943-0.739556I$	$-4.00039+1.13083I$	0
$u=0.955413-0.535542I$ $a=-1.031710+0.527843I$ $b=0.492943+0.739556I$	$-4.00039-1.13083I$	0
$u=1.085970+0.244696I$ $a=0.996060+0.557928I$ $b=-0.051939+0.187299I$	$-2.66025+2.54993I$	0
$u=1.085970-0.244696I$ $a=0.996060-0.557928I$ $b=-0.051939-0.187299I$	$-2.66025-2.54993I$	0
$u=0.874696+0.133073I$ $a=0.774374+1.094520I$ $b=-0.046872-0.469309I$	$-1.30487+1.72427I$	0
$u=0.874696-0.133073I$ $a=0.774374-1.094520I$ $b=-0.046872+0.469309I$	$-1.30487-1.72427I$	0
$u=-0.497941+0.729795I$ $a=1.165820+0.629819I$ $b=0.006520-0.998511I$	$-2.03235-1.15583I$	0
$u=-0.497941-0.729795I$ $a=1.165820-0.629819I$ $b=0.006520+0.998511I$	$-2.03235+1.15583I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.061980 + 0.362119I$ $a = -0.528626 - 0.797838I$ $b = 0.149722 + 0.444329I$	$-2.90057 - 3.69809I$	0
$u = 1.061980 - 0.362119I$ $a = -0.528626 + 0.797838I$ $b = 0.149722 - 0.444329I$	$-2.90057 + 3.69809I$	0
$u = -1.002390 + 0.507253I$ $a = -0.775875 - 0.405924I$ $b = 0.36366 + 1.97753I$	$2.66744 + 2.88124I$	0
$u = -1.002390 - 0.507253I$ $a = -0.775875 + 0.405924I$ $b = 0.36366 - 1.97753I$	$2.66744 - 2.88124I$	0
$u = 1.039130 + 0.442035I$ $a = -0.012302 - 0.813686I$ $b = 0.719743 + 1.063800I$	$-4.03539 - 3.56778I$	0
$u = 1.039130 - 0.442035I$ $a = -0.012302 + 0.813686I$ $b = 0.719743 - 1.063800I$	$-4.03539 + 3.56778I$	0
$u = -1.090030 + 0.319356I$ $a = -0.276890 + 0.948683I$ $b = 0.701189 - 0.427324I$	$-4.85761 + 3.45164I$	0
$u = -1.090030 - 0.319356I$ $a = -0.276890 - 0.948683I$ $b = 0.701189 + 0.427324I$	$-4.85761 - 3.45164I$	0
$u = -1.078490 + 0.389234I$ $a = -0.787230 + 0.880471I$ $b = 0.048133 - 0.220752I$	$-6.77478 + 6.50412I$	0
$u = -1.078490 - 0.389234I$ $a = -0.787230 - 0.880471I$ $b = 0.048133 + 0.220752I$	$-6.77478 - 6.50412I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.264729+0.810062I$ $a=-0.919199+0.505820I$ $b=\ \ 0.468141-0.933035I$	$-0.28815-8.54272I$	0
$u=-0.264729-0.810062I$ $a=-0.919199-0.505820I$ $b=\ \ 0.468141+0.933035I$	$-0.28815+8.54272I$	0
$u=\ \ 1.074410+0.405058I$ $a=-0.271488-0.968396I$ $b=\ \ 0.076752+0.262131I$	$-1.51684-6.06281I$	0
$u=\ \ 1.074410-0.405058I$ $a=-0.271488+0.968396I$ $b=\ \ 0.076752-0.262131I$	$-1.51684+6.06281I$	0
$u=\ \ 0.770082+0.363667I$ $a=\ \ 1.69569-0.51875I$ $b=\ \ 1.41698+1.21974I$	$3.56946+5.26691I$	0
$u=\ \ 0.770082-0.363667I$ $a=\ \ 1.69569+0.51875I$ $b=\ \ 1.41698-1.21974I$	$3.56946-5.26691I$	0
$u=-1.087010+0.390708I$ $a=\ \ 0.564034+1.103930I$ $b=\ \ 0.049728-0.981981I$	$1.73688+5.19821I$	0
$u=-1.087010-0.390708I$ $a=\ \ 0.564034-1.103930I$ $b=\ \ 0.049728+0.981981I$	$1.73688-5.19821I$	0
$u=-1.014070+0.566273I$ $a=\ \ 0.511883+1.128890I$ $b=\ \ 0.85240-1.71737I$	$-3.51186+6.09555I$	0
$u=-1.014070-0.566273I$ $a=\ \ 0.511883-1.128890I$ $b=\ \ 0.85240+1.71737I$	$-3.51186-6.09555I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$1.085820+0.418233I$		
$a=$	$0.798553-1.006530I$	$1.81434-3.63679I$	0
$b=$	$0.222149+1.264500I$		
$u=$	$1.085820-0.418233I$		
$a=$	$0.798553+1.006530I$	$1.81434+3.63679I$	0
$b=$	$0.222149-1.264500I$		
$u=$	$1.032740+0.540789I$		
$a=$	$-0.639624+0.255097I$	$3.05780-1.58165I$	0
$b=$	$0.64336-1.81774I$		
$u=$	$1.032740-0.540789I$		
$a=$	$-0.639624-0.255097I$	$3.05780+1.58165I$	0
$b=$	$0.64336+1.81774I$		
$u=$	$-1.172030+0.110315I$		
$a=$	$0.546361-0.282163I$	$-1.85244-0.13124I$	0
$b=$	$0.338652-0.023447I$		
$u=$	$-1.172030-0.110315I$		
$a=$	$0.546361+0.282163I$	$-1.85244+0.13124I$	0
$b=$	$0.338652+0.023447I$		
$u=$	$0.206943+0.792165I$		
$a=$	$-0.77995+1.43503I$	$3.35332+3.66686I$	0
$b=$	$-0.23213-1.55337I$		
$u=$	$0.206943-0.792165I$		
$a=$	$-0.77995-1.43503I$	$3.35332-3.66686I$	0
$b=$	$-0.23213+1.55337I$		
$u=$	$1.073230+0.497941I$		
$a=$	$0.718078-0.898766I$	$1.19048-4.34256I$	0
$b=$	$0.56627+1.47951I$		
$u=$	$1.073230-0.497941I$		
$a=$	$0.718078+0.898766I$	$1.19048+4.34256I$	0
$b=$	$0.56627-1.47951I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.386200+0.716926I$ $a=-1.23518-1.03634I$ $b=-0.09588+1.72609I$	$1.62100-4.92629I$	0
$u=-0.386200-0.716926I$ $a=-1.23518+1.03634I$ $b=-0.09588-1.72609I$	$1.62100+4.92629I$	0
$u=-1.087760+0.478529I$ $a=-0.398562+0.536807I$ $b=-0.090742+0.198724I$	$1.11222+2.21408I$	0
$u=-1.087760-0.478529I$ $a=-0.398562-0.536807I$ $b=-0.090742-0.198724I$	$1.11222-2.21408I$	0
$u=0.720394+0.363656I$ $a=0.1003940-0.0876140I$ $b=0.09773+1.62111I$	$-4.26294-3.88455I$	0
$u=0.720394-0.363656I$ $a=0.1003940+0.0876140I$ $b=0.09773-1.62111I$	$-4.26294+3.88455I$	0
$u=-0.751811+0.261150I$ $a=1.67265+0.26483I$ $b=1.79961-0.35379I$	$5.89546-1.20354I$	0
$u=-0.751811-0.261150I$ $a=1.67265-0.26483I$ $b=1.79961+0.35379I$	$5.89546+1.20354I$	0
$u=1.077970+0.559514I$ $a=0.528140-0.647463I$ $b=1.59630+1.38440I$	$-5.68088-0.47001I$	0
$u=1.077970-0.559514I$ $a=0.528140+0.647463I$ $b=1.59630-1.38440I$	$-5.68088+0.47001I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.141460 + 0.436982I$ $a = 0.719505 - 0.582562I$ $b = 1.79355 + 2.15528I$	$-2.77969 - 9.91991I$	0
$u = 1.141460 - 0.436982I$ $a = 0.719505 + 0.582562I$ $b = 1.79355 - 2.15528I$	$-2.77969 + 9.91991I$	0
$u = -0.412691 + 1.159020I$ $a = 0.751366 + 0.779719I$ $b = 0.13006 - 1.68933I$	$2.83336 - 13.74430I$	0
$u = -0.412691 - 1.159020I$ $a = 0.751366 - 0.779719I$ $b = 0.13006 + 1.68933I$	$2.83336 + 13.74430I$	0
$u = -0.759159 + 0.077930I$ $a = 0.27620 + 1.61746I$ $b = 0.358040 - 0.701749I$	$-4.43746 + 4.02048I$	0
$u = -0.759159 - 0.077930I$ $a = 0.27620 - 1.61746I$ $b = 0.358040 + 0.701749I$	$-4.43746 - 4.02048I$	0
$u = 1.218450 + 0.215306I$ $a = -0.492939 + 0.554272I$ $b = -1.21497 - 1.07752I$	$-5.11241 + 5.14848I$	0
$u = 1.218450 - 0.215306I$ $a = -0.492939 - 0.554272I$ $b = -1.21497 + 1.07752I$	$-5.11241 - 5.14848I$	0
$u = -1.103990 + 0.569699I$ $a = -0.767471 - 0.982847I$ $b = -1.20004 + 2.17363I$	$-0.49000 + 9.86610I$	0
$u = -1.103990 - 0.569699I$ $a = -0.767471 + 0.982847I$ $b = -1.20004 - 2.17363I$	$-0.49000 - 9.86610I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.453656 + 1.178900I$ $a = -0.531767 + 0.782266I$ $b = -0.08702 - 1.78565I$	$5.39447 + 4.87671I$	0
$u = 0.453656 - 1.178900I$ $a = -0.531767 - 0.782266I$ $b = -0.08702 + 1.78565I$	$5.39447 - 4.87671I$	0
$u = -0.730425$ $a = 0.666694$ $b = 0.382456$	-1.46358	0
$u = -1.086450 + 0.664366I$ $a = 0.482956 + 0.569224I$ $b = 0.96455 - 1.58617I$	$-1.16037 + 2.89712I$	0
$u = -1.086450 - 0.664366I$ $a = 0.482956 - 0.569224I$ $b = 0.96455 + 1.58617I$	$-1.16037 - 2.89712I$	0
$u = 0.499069 + 0.527627I$ $a = -0.88297 + 1.37264I$ $b = -1.43447 - 0.40397I$	$4.65459 - 2.82623I$	0
$u = 0.499069 - 0.527627I$ $a = -0.88297 - 1.37264I$ $b = -1.43447 + 0.40397I$	$4.65459 + 2.82623I$	0
$u = -1.161360 + 0.525226I$ $a = 0.754007 + 0.654124I$ $b = 0.688330 - 1.215040I$	$-0.390599 + 1.111860I$	0
$u = -1.161360 - 0.525226I$ $a = 0.754007 - 0.654124I$ $b = 0.688330 + 1.215040I$	$-0.390599 - 1.111860I$	0
$u = -0.608042 + 0.394118I$ $a = -1.44804 - 1.10655I$ $b = -1.46064 + 0.72845I$	$3.98560 + 1.07651I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.608042-0.394118I$ $a=-1.44804+1.10655I$ $b=-1.46064-0.72845I$	$3.98560-1.07651I$	0
$u=\ \ 1.151370+0.560793I$ $a=-0.779456+0.840590I$ $b=-0.89795-2.16549I$	$0.68066-8.67829I$	0
$u=\ \ 1.151370-0.560793I$ $a=-0.779456-0.840590I$ $b=-0.89795+2.16549I$	$0.68066+8.67829I$	0
$u=-1.158310+0.565107I$ $a=\ \ 0.651043-0.728404I$ $b=-0.379605+0.088246I$	$-2.91077+13.64960I$	0
$u=-1.158310-0.565107I$ $a=\ \ 0.651043+0.728404I$ $b=-0.379605-0.088246I$	$-2.91077-13.64960I$	0
$u=-0.259853+1.266720I$ $a=\ \ 0.080496+0.743006I$ $b=\ \ 0.08175-1.53457I$	$2.98324+4.47610I$	0
$u=-0.259853-1.266720I$ $a=\ \ 0.080496-0.743006I$ $b=\ \ 0.08175+1.53457I$	$2.98324-4.47610I$	0
$u=-0.420304+1.229010I$ $a=\ \ 0.408093+0.560897I$ $b=\ \ 0.63897-1.98417I$	$2.83986+2.69706I$	0
$u=-0.420304-1.229010I$ $a=\ \ 0.408093-0.560897I$ $b=\ \ 0.63897+1.98417I$	$2.83986-2.69706I$	0
$u=\ \ 1.308170+0.087102I$ $a=-0.422502-0.416698I$ $b=\ \ 0.371850+0.107744I$	$-7.93701-1.01267I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.308170 - 0.087102I$ $a = -0.422502 + 0.416698I$ $b = 0.371850 - 0.107744I$	$-7.93701 + 1.01267I$	0
$u = 1.176760 + 0.579739I$ $a = 0.569992 + 0.583963I$ $b = -0.188102 - 0.147284I$	$1.43457 - 7.87964I$	0
$u = 1.176760 - 0.579739I$ $a = 0.569992 - 0.583963I$ $b = -0.188102 + 0.147284I$	$1.43457 + 7.87964I$	0
$u = 0.663821 + 0.163673I$ $a = 1.47918 + 0.96656I$ $b = 0.116724 - 1.086720I$	$0.37077 + 3.23302I$	0
$u = 0.663821 - 0.163673I$ $a = 1.47918 - 0.96656I$ $b = 0.116724 + 1.086720I$	$0.37077 - 3.23302I$	0
$u = 0.285135 + 0.610380I$ $a = 0.92416 - 1.60790I$ $b = -0.050637 + 0.924680I$	$3.32659 + 0.00720I$	0
$u = 0.285135 - 0.610380I$ $a = 0.92416 + 1.60790I$ $b = -0.050637 - 0.924680I$	$3.32659 - 0.00720I$	0
$u = 0.489942 + 1.238200I$ $a = 0.662960 - 0.648185I$ $b = 0.32328 + 1.65794I$	$6.77832 + 6.88044I$	0
$u = 0.489942 - 1.238200I$ $a = 0.662960 + 0.648185I$ $b = 0.32328 - 1.65794I$	$6.77832 - 6.88044I$	0
$u = -0.224321 + 0.627904I$ $a = -0.015286 - 0.524588I$ $b = -0.697858 - 0.367055I$	$1.46936 + 3.06749I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.224321-0.627904I$ $a=-0.015286+0.524588I$ $b=-0.697858+0.367055I$	$1.46936-3.06749I$	0
$u=-1.239430+0.548102I$ $a=\ \ 0.594663+0.527662I$ $b=\ \ 1.28662-1.99516I$	$-0.44375+3.54352I$	0
$u=-1.239430-0.548102I$ $a=\ \ 0.594663-0.527662I$ $b=\ \ 1.28662+1.99516I$	$-0.44375-3.54352I$	0
$u=\ \ 1.237470+0.568808I$ $a=-0.627057+0.775924I$ $b=-0.73911-1.78795I$	$0.06510-9.48183I$	0
$u=\ \ 1.237470-0.568808I$ $a=-0.627057-0.775924I$ $b=-0.73911+1.78795I$	$0.06510+9.48183I$	0
$u=-0.793060+1.121730I$ $a=-0.603634-0.489180I$ $b=-0.30687+1.65575I$	$5.39327+0.10507I$	0
$u=-0.793060-1.121730I$ $a=-0.603634+0.489180I$ $b=-0.30687-1.65575I$	$5.39327-0.10507I$	0
$u=\ \ 0.082693+0.619395I$ $a=\ \ 1.330360-0.139633I$ $b=-0.567613+0.202043I$	$-1.43472-0.22373I$	$-6.30972+0.I$
$u=\ \ 0.082693-0.619395I$ $a=\ \ 1.330360+0.139633I$ $b=-0.567613-0.202043I$	$-1.43472+0.22373I$	$-6.30972+0.I$
$u=-1.339410+0.321709I$ $a=\ \ 0.442287-0.111362I$ $b=\ \ 0.236354+0.185662I$	$-1.88503+0.69044I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.339410-0.321709I$ $a=\ \ 0.442287+0.111362I$ $b=\ \ 0.236354-0.185662I$	$-1.88503-0.69044I$	0
$u=-0.596396+0.171044I$ $a=\ \ 2.62171-0.18103I$ $b=\ \ 0.374303+0.234488I$	$3.70485-2.31607I$	$8.00942+10.51133I$
$u=-0.596396-0.171044I$ $a=\ \ 2.62171+0.18103I$ $b=\ \ 0.374303-0.234488I$	$3.70485+2.31607I$	$8.00942-10.51133I$
$u=-1.126100+0.806514I$ $a=-0.486449-0.786512I$ $b=-1.14253+1.78471I$	$4.11605+6.88628I$	0
$u=-1.126100-0.806514I$ $a=-0.486449+0.786512I$ $b=-1.14253-1.78471I$	$4.11605-6.88628I$	0
$u=-1.257770+0.586925I$ $a=-0.594375-0.866892I$ $b=-0.84456+1.64543I$	$-4.2304+13.5113I$	0
$u=-1.257770-0.586925I$ $a=-0.594375+0.866892I$ $b=-0.84456-1.64543I$	$-4.2304-13.5113I$	0
$u=-0.602834+0.059909I$ $a=\ \ 1.236460-0.344801I$ $b=\ \ 0.54829+2.39941I$	$3.83155+1.06583I$	$-4.00000+2.27970I$
$u=-0.602834-0.059909I$ $a=\ \ 1.236460+0.344801I$ $b=\ \ 0.54829-2.39941I$	$3.83155-1.06583I$	$-4.00000-2.27970I$
$u=-1.358310+0.338934I$ $a=-0.645718+0.311033I$ $b=-0.788077-0.481250I$	$-2.67108-0.80743I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.358310-0.338934I$ $a=-0.645718-0.311033I$ $b=-0.788077+0.481250I$	$-2.67108+0.80743I$	0
$u=-1.41244+0.09773I$ $a=-0.540708-0.306582I$ $b=-0.025817+0.713256I$	$-1.86249+2.87351I$	0
$u=-1.41244-0.09773I$ $a=-0.540708+0.306582I$ $b=-0.025817-0.713256I$	$-1.86249-2.87351I$	0
$u=1.37826+0.32789I$ $a=0.455189+0.134338I$ $b=-0.486035-0.133376I$	$-4.44501-6.89655I$	0
$u=1.37826-0.32789I$ $a=0.455189-0.134338I$ $b=-0.486035+0.133376I$	$-4.44501+6.89655I$	0
$u=1.22258+0.71942I$ $a=-0.621398+0.775987I$ $b=-1.07203-1.78504I$	$2.89560-11.55240I$	0
$u=1.22258-0.71942I$ $a=-0.621398-0.775987I$ $b=-1.07203+1.78504I$	$2.89560+11.55240I$	0
$u=-1.25219+0.71084I$ $a=0.543757+0.865900I$ $b=1.04106-2.08031I$	$0.1443+20.3788I$	0
$u=-1.25219-0.71084I$ $a=0.543757-0.865900I$ $b=1.04106+2.08031I$	$0.1443-20.3788I$	0
$u=0.534851+0.132966I$ $a=1.121550-0.197616I$ $b=0.35022+3.10796I$	$-0.19642+6.85043I$	$-1.84550+2.67603I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.534851 - 0.132966I$ $a = 1.121550 + 0.197616I$ $b = 0.35022 - 3.10796I$	$-0.19642 - 6.85043I$	$-1.84550 - 2.67603I$
$u = -1.33846 + 0.58648I$ $a = -0.443468 - 0.617881I$ $b = -0.49859 + 1.62161I$	$-2.08247 + 3.93238I$	0
$u = -1.33846 - 0.58648I$ $a = -0.443468 + 0.617881I$ $b = -0.49859 - 1.62161I$	$-2.08247 - 3.93238I$	0
$u = 1.26749 + 0.74633I$ $a = 0.492857 - 0.802095I$ $b = 0.98971 + 2.07463I$	$4.1866 - 13.8875I$	0
$u = 1.26749 - 0.74633I$ $a = 0.492857 + 0.802095I$ $b = 0.98971 - 2.07463I$	$4.1866 + 13.8875I$	0
$u = 0.446362 + 0.272843I$ $a = 2.69827 - 1.07449I$ $b = 0.160409 + 0.341725I$	$3.88766 + 0.27154I$	$5.15604 + 5.66364I$
$u = 0.446362 - 0.272843I$ $a = 2.69827 + 1.07449I$ $b = 0.160409 - 0.341725I$	$3.88766 - 0.27154I$	$5.15604 - 5.66364I$
$u = -1.26094 + 0.77132I$ $a = 0.673439 - 0.161979I$ $b = 0.400369 - 0.223005I$	$-2.70929 + 1.16729I$	0
$u = -1.26094 - 0.77132I$ $a = 0.673439 + 0.161979I$ $b = 0.400369 + 0.223005I$	$-2.70929 - 1.16729I$	0
$u = -1.15098 + 1.00543I$ $a = 0.179396 + 0.754151I$ $b = 0.75282 - 2.03006I$	$-1.98794 + 6.58061I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.15098-1.00543I$ $a=\ \ 0.179396-0.754151I$ $b=\ \ 0.75282+2.03006I$	$-1.98794-6.58061I$	0
$u=\ \ 1.53401+0.01399I$ $a=-0.558959-0.287533I$ $b=-0.340586+0.213226I$	$-4.77758+9.26085I$	0
$u=\ \ 1.53401-0.01399I$ $a=-0.558959+0.287533I$ $b=-0.340586-0.213226I$	$-4.77758-9.26085I$	0
$u=\ \ 1.50727+0.33979I$ $a=\ \ 0.540012+0.063785I$ $b=\ \ 0.123494+0.461332I$	$-6.33708+2.52064I$	0
$u=\ \ 1.50727-0.33979I$ $a=\ \ 0.540012-0.063785I$ $b=\ \ 0.123494-0.461332I$	$-6.33708-2.52064I$	0
$u=-1.67875$ $a=\ \ 0.472938$ $b=\ \ 0.657377$	-2.97193	0
$u=-0.061501+0.315308I$ $a=\ \ 1.35388-0.54162I$ $b=-0.015852-0.379706I$	$-0.235966+0.960167I$	$-4.61956-6.69387I$
$u=-0.061501-0.315308I$ $a=\ \ 1.35388+0.54162I$ $b=-0.015852+0.379706I$	$-0.235966-0.960167I$	$-4.61956+6.69387I$
$u=\ \ 0.0646493+0.1162420I$ $a=\ \ 3.68249+3.57533I$ $b=\ \ 0.256926+1.011690I$	$-4.19477-3.63377I$	$-8.37769+3.26370I$
$u=\ \ 0.0646493-0.1162420I$ $a=\ \ 3.68249-3.57533I$ $b=\ \ 0.256926-1.011690I$	$-4.19477+3.63377I$	$-8.37769-3.26370I$

II.

$\boldsymbol{I_2^u = \langle 2.87\times 10^{31}u^{46}+1.05\times 10^{32}u^{45}+\cdots+3.67\times 10^{29}b-6.08\times 10^{31},\ 1.01\times 10^{31}u^{46}+3.83\times 10^{31}u^{45}+\cdots+3.67\times 10^{29}a-1.99\times 10^{31},\ u^{47}+3u^{46}+\cdots-u+1\rangle}$

(i) Arc colorings

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

$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -27.5820u^{46} - 104.181u^{45} + \cdots - 10.2611u + 54.2683 \\ -78.2225u^{46} - 284.743u^{45} + \cdots + 69.3825u + 165.536 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -61.0684u^{46} - 225.594u^{45} + \cdots + 16.0079u + 118.904 \\ -57.7069u^{46} - 209.213u^{45} + \cdots + 55.6453u + 121.855 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 22.2310u^{46} + 105.841u^{45} + \cdots + 82.2805u - 32.9718 \\ -31.8947u^{46} - 116.935u^{45} + \cdots + 36.4035u + 61.6576 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 63.1278u^{46} + 191.176u^{45} + \cdots - 181.832u - 83.3637 \\ -72.8214u^{46} - 256.230u^{45} + \cdots + 83.9789u + 131.849 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -9.66367u^{46} - 11.0936u^{45} + \cdots + 118.684u + 28.6858 \\ -31.8947u^{46} - 116.935u^{45} + \cdots + 36.4035u + 61.6576 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 34.6423u^{46} + 73.7290u^{45} + \cdots - 214.273u + 46.3463 \\ 13.3562u^{46} + 39.7678u^{45} + \cdots - 49.9386u - 16.3906 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -118.148u^{46} - 397.924u^{45} + \cdots + 145.219u + 33.4143 \\ -4.96398u^{46} - 13.6597u^{45} + \cdots + 39.6336u + 18.8281 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 76.1492u^{46} + 228.217u^{45} + \cdots - 231.378u + 35.4088 \\ -54.2807u^{46} - 200.494u^{45} + \cdots + 20.5694u + 98.0489 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 517.085u^{46} + 1849.01u^{45} + \cdots - 396.364u - 980.572$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{47} - 3u^{46} + \cdots - 11u^2 + 1$
c_2	$u^{47} - 14u^{45} + \cdots + 4u + 1$
c_3	$u^{47} - 6u^{45} + \cdots + 297u - 27$
c_4	$u^{47} - 18u^{45} + \cdots + 2u + 1$
c_5	$u^{47} - u^{46} + \cdots - 20u + 1$
c_6	$u^{47} + 15u^{44} + \cdots + 178u - 13$
c_7	$u^{47} - 14u^{45} + \cdots + 4u - 1$
c_8	$u^{47} - 3u^{46} + \cdots - u - 1$
c_9	$u^{47} + 10u^{45} + \cdots + 6u - 1$
c_{10}	$u^{47} - 18u^{45} + \cdots + 2u - 1$
c_{11}	$u^{47} + 3u^{46} + \cdots - u + 1$
c_{12}	$u^{47} + u^{46} + \cdots - 20u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{47} + 7y^{46} + \cdots + 22y - 1$
c_2, c_7	$y^{47} - 28y^{46} + \cdots + 36y - 1$
c_3	$y^{47} - 12y^{46} + \cdots + 54837y - 729$
c_4, c_{10}	$y^{47} - 36y^{46} + \cdots + 4y - 1$
c_5, c_{12}	$y^{47} + 43y^{46} + \cdots + 76y - 1$
c_6	$y^{47} + 8y^{45} + \cdots + 6490y - 169$
c_8, c_{11}	$y^{47} - 27y^{46} + \cdots + 35y - 1$
c_9	$y^{47} + 20y^{46} + \cdots - 16y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.889937+0.430073I$ $a=\ 0.405900+1.090710I$ $b=-0.249732-1.338120I$	$0.28405+4.81397I$	$-4.00000-6.94228I$
$u=-0.889937-0.430073I$ $a=\ 0.405900-1.090710I$ $b=-0.249732+1.338120I$	$0.28405-4.81397I$	$-4.00000+6.94228I$
$u=\ 0.902904+0.320536I$ $a=\ 1.14702+0.96787I$ $b=-0.593652+0.229428I$	$-5.10557+2.06707I$	$-11.08081-8.65643I$
$u=\ 0.902904-0.320536I$ $a=\ 1.14702-0.96787I$ $b=-0.593652-0.229428I$	$-5.10557-2.06707I$	$-11.08081+8.65643I$
$u=\ 0.906781+0.289471I$ $a=-0.106618-1.163250I$ $b=\ 0.492570+1.136090I$	$-5.05622-4.70892I$	$-13.0918+9.2301I$
$u=\ 0.906781-0.289471I$ $a=-0.106618+1.163250I$ $b=\ 0.492570-1.136090I$	$-5.05622+4.70892I$	$-13.0918-9.2301I$
$u=\ 0.811557+0.469734I$ $a=\ 0.358509-1.070080I$ $b=\ 1.06125+1.69320I$	$-4.71152-4.88182I$	$-10.09232+5.63767I$
$u=\ 0.811557-0.469734I$ $a=\ 0.358509+1.070080I$ $b=\ 1.06125-1.69320I$	$-4.71152+4.88182I$	$-10.09232-5.63767I$
$u=-0.935762+0.528889I$ $a=-0.665153-0.391796I$ $b=\ 0.48565+2.06102I$	$4.44804+2.04172I$	0
$u=-0.935762-0.528889I$ $a=-0.665153+0.391796I$ $b=\ 0.48565-2.06102I$	$4.44804-2.04172I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.450788+0.802899I$ $a=-0.462859-1.134600I$ $b=-0.885500+0.829356I$	$5.93746+2.73605I$	$4.39597-4.05385I$
$u=-0.450788-0.802899I$ $a=-0.462859+1.134600I$ $b=-0.885500-0.829356I$	$5.93746-2.73605I$	$4.39597+4.05385I$
$u=-1.083020+0.155939I$ $a=0.725055-0.670192I$ $b=0.185721+0.264913I$	$-1.88772-1.80438I$	0
$u=-1.083020-0.155939I$ $a=0.725055+0.670192I$ $b=0.185721-0.264913I$	$-1.88772+1.80438I$	0
$u=0.065911+1.112560I$ $a=-0.272804+1.011100I$ $b=-0.04427-1.85749I$	$4.03902+5.09451I$	0
$u=0.065911-1.112560I$ $a=-0.272804-1.011100I$ $b=-0.04427+1.85749I$	$4.03902-5.09451I$	0
$u=-0.501627+0.719259I$ $a=-0.580750-0.629272I$ $b=-0.27843+2.37718I$	$4.45750+1.72614I$	$4.41580-2.99878I$
$u=-0.501627-0.719259I$ $a=-0.580750+0.629272I$ $b=-0.27843-2.37718I$	$4.45750-1.72614I$	$4.41580+2.99878I$
$u=1.094100+0.349905I$ $a=0.740268-0.957578I$ $b=-0.091002+1.121130I$	$1.80658-4.57967I$	0
$u=1.094100-0.349905I$ $a=0.740268+0.957578I$ $b=-0.091002-1.121130I$	$1.80658+4.57967I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.225190+0.113002I$ $a=\ \ 0.314375+0.453265I$ $b=\ \ 0.225773-0.714056I$	$-2.10893+1.93292I$	0
$u=-1.225190-0.113002I$ $a=\ \ 0.314375-0.453265I$ $b=\ \ 0.225773+0.714056I$	$-2.10893-1.93292I$	0
$u=\ \ 0.712750+0.203668I$ $a=\ \ 2.14518+0.08588I$ $b=\ \ 0.839109+0.056598I$	$3.42656+2.09756I$	$-10.94235+4.10081I$
$u=\ \ 0.712750-0.203668I$ $a=\ \ 2.14518-0.08588I$ $b=\ \ 0.839109-0.056598I$	$3.42656-2.09756I$	$-10.94235-4.10081I$
$u=\ \ 1.156770+0.531285I$ $a=-0.845915+0.797237I$ $b=-1.03486-2.08640I$	$0.69570-10.11660I$	0
$u=\ \ 1.156770-0.531285I$ $a=-0.845915-0.797237I$ $b=-1.03486+2.08640I$	$0.69570+10.11660I$	0
$u=-1.174330+0.572544I$ $a=\ \ 0.525061+0.518322I$ $b=\ \ 0.77309-1.55639I$	$-1.24471+2.44194I$	0
$u=-1.174330-0.572544I$ $a=\ \ 0.525061-0.518322I$ $b=\ \ 0.77309+1.55639I$	$-1.24471-2.44194I$	0
$u=-0.303390+1.280700I$ $a=\ \ 0.261705+0.514561I$ $b=\ \ 0.57083-1.47279I$	$2.42673+3.32756I$	0
$u=-0.303390-1.280700I$ $a=\ \ 0.261705-0.514561I$ $b=\ \ 0.57083+1.47279I$	$2.42673-3.32756I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.328530 + 0.239810I$ $a = 0.341531 + 0.141402I$ $b = 0.259510 + 0.741575I$	$-6.74158 + 1.85994I$	0
$u = 1.328530 - 0.239810I$ $a = 0.341531 - 0.141402I$ $b = 0.259510 - 0.741575I$	$-6.74158 - 1.85994I$	0
$u = 1.361130 + 0.214761I$ $a = -0.297328 + 0.050725I$ $b = 0.060166 + 0.773436I$	$-4.25106 - 7.64066I$	0
$u = 1.361130 - 0.214761I$ $a = -0.297328 - 0.050725I$ $b = 0.060166 - 0.773436I$	$-4.25106 + 7.64066I$	0
$u = -0.600452 + 0.038623I$ $a = 2.41464 - 0.22924I$ $b = 0.977092 + 0.316977I$	$3.35221 - 0.49367I$	$-9.49194 - 1.07798I$
$u = -0.600452 - 0.038623I$ $a = 2.41464 + 0.22924I$ $b = 0.977092 - 0.316977I$	$3.35221 + 0.49367I$	$-9.49194 + 1.07798I$
$u = -1.066250 + 0.905397I$ $a = -0.205456 - 0.860858I$ $b = -0.84168 + 1.96246I$	$-1.71287 + 6.36824I$	0
$u = -1.066250 - 0.905397I$ $a = -0.205456 + 0.860858I$ $b = -0.84168 - 1.96246I$	$-1.71287 - 6.36824I$	0
$u = 0.570676 + 0.141826I$ $a = -0.854767 + 0.698128I$ $b = 0.11697 - 3.13616I$	$-0.33740 - 7.25565I$	$-8.2236 + 14.6599I$
$u = 0.570676 - 0.141826I$ $a = -0.854767 - 0.698128I$ $b = 0.11697 + 3.13616I$	$-0.33740 + 7.25565I$	$-8.2236 - 14.6599I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.511816+0.218214I$ $a=-1.97577-1.00397I$ $b=-1.45878-0.53097I$	$6.22975+2.31382I$	$2.39074-3.00194I$
$u=-0.511816-0.218214I$ $a=-1.97577+1.00397I$ $b=-1.45878+0.53097I$	$6.22975-2.31382I$	$2.39074+3.00194I$
$u=-1.31030+0.63554I$ $a=-0.605765+0.229474I$ $b=-0.265858-0.061072I$	$-2.81336+0.83183I$	0
$u=-1.31030-0.63554I$ $a=-0.605765-0.229474I$ $b=-0.265858+0.061072I$	$-2.81336-0.83183I$	0
$u=\ \ 0.475870+0.171647I$ $a=-2.73580+0.77197I$ $b=-0.67721-1.52174I$	$3.70241+6.31816I$	$-2.22797-7.95729I$
$u=\ \ 0.475870-0.171647I$ $a=-2.73580-0.77197I$ $b=-0.67721+1.52174I$	$3.70241-6.31816I$	$-2.22797+7.95729I$
$u=-1.66828$ $a=\ \ 0.459483$ $b=\ \ 0.746478$	-3.09044	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{47}-3u^{46}+\cdots-11u^2+1)(u^{170}-14u^{169}+\cdots+18u-1)$
c_2	$(u^{47}-14u^{45}+\cdots+4u+1)(u^{170}+u^{169}+\cdots-42944u+1984)$
c_3	$(u^{47}-6u^{45}+\cdots+297u-27)$ $\cdot(u^{170}-u^{169}+\cdots-276535005u-23926117)$
c_4	$(u^{47}-18u^{45}+\cdots+2u+1)(u^{170}+u^{169}+\cdots+60040u-6379)$
c_5	$(u^{47}-u^{46}+\cdots-20u+1)(u^{170}+2u^{169}+\cdots+6420u-35591)$
c_6	$(u^{47}+15u^{44}+\cdots+178u-13)$ $\cdot(u^{170}-u^{169}+\cdots+9130974u+5572759)$
c_7	$(u^{47}-14u^{45}+\cdots+4u-1)(u^{170}+u^{169}+\cdots-42944u+1984)$
c_8	$(u^{47}-3u^{46}+\cdots-u-1)(u^{170}+8u^{169}+\cdots-715u+221)$
c_9	$(u^{47}+10u^{45}+\cdots+6u-1)(u^{170}+3u^{169}+\cdots+811454u+271819)$
c_{10}	$(u^{47}-18u^{45}+\cdots+2u-1)(u^{170}+u^{169}+\cdots+60040u-6379)$
c_{11}	$(u^{47}+3u^{46}+\cdots-u+1)(u^{170}+8u^{169}+\cdots-715u+221)$
c_{12}	$(u^{47}+u^{46}+\cdots-20u-1)(u^{170}+2u^{169}+\cdots+6420u-35591)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{47}+7y^{46}+\cdots+22y-1)(y^{170}+6y^{169}+\cdots-760y+1)$
c_2, c_7	$(y^{47}-28y^{46}+\cdots+36y-1)$ $\cdot(y^{170}-93y^{169}+\cdots-827236352y+3936256)$
c_3	$(y^{47}-12y^{46}+\cdots+54837y-729)$ $\cdot(y^{170}-41y^{169}+\cdots-4680698030178335y+572459074697689)$
c_4, c_{10}	$(y^{47}-36y^{46}+\cdots+4y-1)$ $\cdot(y^{170}-113y^{169}+\cdots-1618495822y+40691641)$
c_5, c_{12}	$(y^{47}+43y^{46}+\cdots+76y-1)$ $\cdot(y^{170}+118y^{169}+\cdots+25027873906y+1266719281)$
c_6	$(y^{47}+8y^{45}+\cdots+6490y-169)$ $\cdot(y^{170}-9y^{169}+\cdots+1788240547802984y+31055642872081)$
c_8, c_{11}	$(y^{47}-27y^{46}+\cdots+35y-1)$ $\cdot(y^{170}-88y^{169}+\cdots+1304511y+48841)$
c_9	$(y^{47}+20y^{46}+\cdots-16y-1)$ $\cdot(y^{170}+43y^{169}+\cdots+6707969409918y+73885568761)$