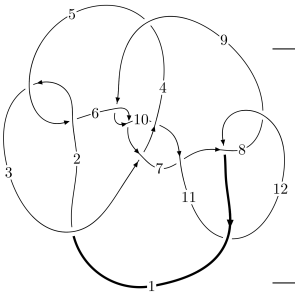
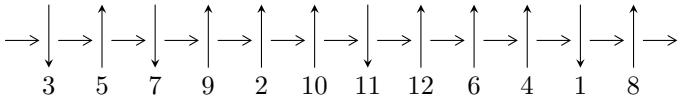
$12a_{0069}$ $(K12a_{0069})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 7.65770 \times 10^{416} u^{118} - 1.62086 \times 10^{417} u^{117} + \cdots + 7.02397 \times 10^{415} b - 9.50919 \times 10^{416}, \\ & - 7.94572 \times 10^{415} u^{118} + 1.92807 \times 10^{416} u^{117} + \cdots + 7.02397 \times 10^{415} a + 1.46155 \times 10^{416}, \\ & u^{119} - u^{118} + \cdots - 10u^3 - 1 \rangle \end{aligned}$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 119 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. $\boldsymbol{I_1^u = \langle 7.66 \times 10^{416} u^{118} - 1.62 \times 10^{417} u^{117} + \cdots + 7.02 \times 10^{415} b - 9.51 \times 10^{416},\ -7.95 \times 10^{415} u^{118} + 1.93 \times 10^{416} u^{117} + \cdots + 7.02 \times 10^{415} a + 1.46 \times 10^{416},\ u^{119} - u^{118} + \cdots - 10u^3 - 1 \rangle}$

(i) Arc colorings

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

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1.13123u^{118} - 2.74499u^{117} + \cdots - 0.679206u - 2.08080 \\ -10.9022u^{118} + 23.0761u^{117} + \cdots - 11.1828u + 13.5382 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} 0.947849u^{118} - 3.85311u^{117} + \cdots - 3.86697u - 3.09518 \\ -14.8208u^{118} + 24.3819u^{117} + \cdots - 16.3486u + 11.6263 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.869184u^{118} - 4.24063u^{117} + \cdots - 4.92860u - 3.11758 \\ -15.6125u^{118} + 27.9535u^{117} + \cdots - 18.8594u + 14.1353 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.700733u^{118} - 0.837427u^{117} + \cdots + 2.27817u - 0.562810 \\ 0.130477u^{118} + 1.80102u^{117} + \cdots - 2.77571u + 1.78291 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 15.7687u^{118} - 28.2350u^{117} + \cdots + 12.4817u - 14.7215 \\ -14.8208u^{118} + 24.3819u^{117} + \cdots - 16.3486u + 11.6263 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.244750u^{118} - 1.71369u^{117} + \cdots - 1.10194u - 3.47644 \\ -1.42573u^{118} + 1.50735u^{117} + \cdots - 0.807561u + 0.768205 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.683348u^{118} - 1.40205u^{117} + \cdots - 0.666971u - 2.50037 \\ 2.26430u^{118} - 3.52278u^{117} + \cdots + 2.98299u - 1.11611 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -3.44836u^{118} + 3.50134u^{117} + \cdots - 5.29495u + 0.898973 \\ 3.52208u^{118} - 3.23364u^{117} + \cdots + 4.70691u - 0.312411 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -91.5861u^{118} + 200.489u^{117} + \cdots - 97.6537u + 125.725$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{119}+47u^{118}+\cdots+76u-1$
c_2, c_5	$u^{119}+u^{118}+\cdots+4u-1$
c_3	$u^{119}-11u^{118}+\cdots-44u-41$
c_4	$u^{119}+17u^{118}+\cdots-9590288u-2011573$
c_6, c_9	$u^{119}-u^{118}+\cdots-10u^3-1$
c_7	$u^{119}+5u^{118}+\cdots-2541506u-300233$
c_8, c_{12}	$u^{119}-5u^{118}+\cdots+2u-1$
c_{10}	$u^{119}-3u^{118}+\cdots-4u+1$
c_{11}	$u^{119}+59u^{118}+\cdots-10u^2-1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{119} + 51y^{118} + \cdots + 3612y - 1$
c_2, c_5	$y^{119} + 47y^{118} + \cdots + 76y - 1$
c_3	$y^{119} - 29y^{118} + \cdots - 1094568y - 1681$
c_4	$y^{119} - 97y^{118} + \cdots + 36045891989112y - 4046425934329$
c_6, c_9	$y^{119} - 85y^{118} + \cdots + 10y^2 - 1$
c_7	$y^{119} - 53y^{118} + \cdots - 333755460568y - 90139854289$
c_8, c_{12}	$y^{119} + 59y^{118} + \cdots - 10y^2 - 1$
c_{10}	$y^{119} - 5y^{118} + \cdots + 36y - 1$
c_{11}	$y^{119} + 3y^{118} + \cdots - 20y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.035610+0.034259I$ $a=\ \ 0.442668+0.851761I$ $b=-3.97968+9.10996I$	$-0.86467-1.64898I$	0
$u=-1.035610-0.034259I$ $a=\ \ 0.442668-0.851761I$ $b=-3.97968-9.10996I$	$-0.86467+1.64898I$	0
$u=-0.153531+0.943119I$ $a=\ \ 0.329336-0.874707I$ $b=\ \ 0.612984-0.109115I$	$-2.01394-8.29603I$	0
$u=-0.153531-0.943119I$ $a=\ \ 0.329336+0.874707I$ $b=\ \ 0.612984+0.109115I$	$-2.01394+8.29603I$	0
$u=\ \ 0.195630+0.932978I$ $a=-0.333343-0.813020I$ $b=-0.621938+0.026733I$	$0.44663+3.21872I$	0
$u=\ \ 0.195630-0.932978I$ $a=-0.333343+0.813020I$ $b=-0.621938-0.026733I$	$0.44663-3.21872I$	0
$u=\ \ 1.052800+0.041861I$ $a=-0.530406-0.799447I$ $b=-5.59734-1.83768I$	$1.78369+2.11474I$	0
$u=\ \ 1.052800-0.041861I$ $a=-0.530406+0.799447I$ $b=-5.59734+1.83768I$	$1.78369-2.11474I$	0
$u=-0.931249+0.000665I$ $a=\ \ 0.536962-0.910284I$ $b=-4.83863+6.77336I$	$-0.80226-5.64486I$	0
$u=-0.931249-0.000665I$ $a=\ \ 0.536962+0.910284I$ $b=-4.83863-6.77336I$	$-0.80226+5.64486I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.060990+0.301097I$ $a=\ \ 0.546458-0.953653I$ $b=\ \ 1.06405+1.45475I$	$0.30758-5.30584I$	0
$u=-1.060990-0.301097I$ $a=\ \ 0.546458+0.953653I$ $b=\ \ 1.06405-1.45475I$	$0.30758+5.30584I$	0
$u=\ \ 0.267796+0.851309I$ $a=\ \ 1.278180+0.154070I$ $b=\ \ 1.75621+0.23838I$	$-8.34950+2.40655I$	0
$u=\ \ 0.267796-0.851309I$ $a=\ \ 1.278180-0.154070I$ $b=\ \ 1.75621-0.23838I$	$-8.34950-2.40655I$	0
$u=-0.074330+1.125290I$ $a=-0.997873-0.486870I$ $b=-1.79400+0.03937I$	$-3.88873-13.56350I$	0
$u=-0.074330-1.125290I$ $a=-0.997873+0.486870I$ $b=-1.79400-0.03937I$	$-3.88873+13.56350I$	0
$u=\ \ 1.13014$ $a=-0.111440$ $b=\ \ 0.759054$	1.93584	0
$u=-1.121190+0.188539I$ $a=-0.145641-0.105682I$ $b=-0.989741-0.222670I$	$-1.05597-3.63117I$	0
$u=-1.121190-0.188539I$ $a=-0.145641+0.105682I$ $b=-0.989741+0.222670I$	$-1.05597+3.63117I$	0
$u=-0.132272+0.843702I$ $a=\ \ 0.195416-0.810399I$ $b=\ \ 0.328272-0.000696I$	$-4.11006-0.27210I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.132272-0.843702I$ $a=\ \ 0.195416+0.810399I$ $b=\ \ 0.328272+0.000696I$	$-4.11006+0.27210I$	0
$u=-0.147996+1.139970I$ $a=-0.981418-0.346599I$ $b=-1.82266+0.10584I$	$-6.26033-4.80404I$	0
$u=-0.147996-1.139970I$ $a=-0.981418+0.346599I$ $b=-1.82266-0.10584I$	$-6.26033+4.80404I$	0
$u=\ \ 0.081715+1.152440I$ $a=\ \ 0.948415-0.459935I$ $b=\ \ 1.77493+0.07000I$	$-1.22644+8.24609I$	0
$u=\ \ 0.081715-1.152440I$ $a=\ \ 0.948415+0.459935I$ $b=\ \ 1.77493-0.07000I$	$-1.22644-8.24609I$	0
$u=\ \ 1.158970+0.018063I$ $a=-0.479317-0.521293I$ $b=-0.258759-1.112910I$	$2.16234+1.39239I$	0
$u=\ \ 1.158970-0.018063I$ $a=-0.479317+0.521293I$ $b=-0.258759+1.112910I$	$2.16234-1.39239I$	0
$u=\ \ 1.143840+0.215265I$ $a=-0.705485-0.961559I$ $b=-1.26062+1.12141I$	$-0.39199+2.55993I$	0
$u=\ \ 1.143840-0.215265I$ $a=-0.705485+0.961559I$ $b=-1.26062-1.12141I$	$-0.39199-2.55993I$	0
$u=\ \ 0.801969+0.209169I$ $a=-0.607950-0.823356I$ $b=\ \ 0.16247+2.03835I$	$1.10471+1.87596I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.801969 - 0.209169I$ $a = -0.607950 + 0.823356I$ $b = 0.16247 - 2.03835I$	$1.10471 - 1.87596I$	0
$u = -0.281744 + 0.773549I$ $a = -1.307150 + 0.320885I$ $b = -1.66811 + 0.26788I$	$-4.34747 + 1.40844I$	0
$u = -0.281744 - 0.773549I$ $a = -1.307150 - 0.320885I$ $b = -1.66811 - 0.26788I$	$-4.34747 - 1.40844I$	0
$u = -1.172220 + 0.136967I$ $a = 0.807474 - 0.803851I$ $b = 1.175190 + 0.567020I$	$3.94124 - 4.31721I$	0
$u = -1.172220 - 0.136967I$ $a = 0.807474 + 0.803851I$ $b = 1.175190 - 0.567020I$	$3.94124 + 4.31721I$	0
$u = -1.167230 + 0.178565I$ $a = 0.781709 - 0.909729I$ $b = 1.20647 + 0.89400I$	$3.04776 - 5.27945I$	0
$u = -1.167230 - 0.178565I$ $a = 0.781709 + 0.909729I$ $b = 1.20647 - 0.89400I$	$3.04776 + 5.27945I$	0
$u = -1.112690 + 0.397752I$ $a = 0.429494 - 1.022980I$ $b = 0.94831 + 1.23748I$	$-1.79609 - 5.72361I$	0
$u = -1.112690 - 0.397752I$ $a = 0.429494 + 1.022980I$ $b = 0.94831 - 1.23748I$	$-1.79609 + 5.72361I$	0
$u = -0.976273 + 0.682780I$ $a = 0.287128 - 0.765903I$ $b = 0.620309 + 1.052770I$	$-3.68701 - 1.75662I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.976273-0.682780I$ $a=\ \ 0.287128+0.765903I$ $b=\ \ 0.620309-1.052770I$	$-3.68701+1.75662I$	0
$u=\ \ 1.178780+0.192982I$ $a=-0.796177-0.953278I$ $b=-1.13146+0.97080I$	$0.72920+9.76423I$	0
$u=\ \ 1.178780-0.192982I$ $a=-0.796177+0.953278I$ $b=-1.13146-0.97080I$	$0.72920-9.76423I$	0
$u=\ \ 0.227268+0.769683I$ $a=\ \ 1.43240+0.29302I$ $b=\ \ 1.69375+0.33844I$	$-7.32116-6.11305I$	0
$u=\ \ 0.227268-0.769683I$ $a=\ \ 1.43240-0.29302I$ $b=\ \ 1.69375-0.33844I$	$-7.32116+6.11305I$	0
$u=\ \ 1.192600+0.108357I$ $a=-0.864274-0.703004I$ $b=-0.913943+0.343127I$	$2.62468+0.41803I$	0
$u=\ \ 1.192600-0.108357I$ $a=-0.864274+0.703004I$ $b=-0.913943-0.343127I$	$2.62468-0.41803I$	0
$u=\ \ 1.117730+0.438448I$ $a=-0.371372-1.011530I$ $b=-0.90305+1.17790I$	$-5.72733+2.25424I$	0
$u=\ \ 1.117730-0.438448I$ $a=-0.371372+1.011530I$ $b=-0.90305-1.17790I$	$-5.72733-2.25424I$	0
$u=\ \ 1.137120+0.397553I$ $a=-0.421645-1.060100I$ $b=-0.97948+1.20682I$	$-4.54003+10.40590I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.137120 - 0.397553I$ $a = -0.421645 + 1.060100I$ $b = -0.97948 - 1.20682I$	$-4.54003 - 10.40590I$	0
$u = -1.211580 + 0.058016I$ $a = 0.891343 - 0.447261I$ $b = 0.461806 + 0.041016I$	$5.32038 - 2.42918I$	0
$u = -1.211580 - 0.058016I$ $a = 0.891343 + 0.447261I$ $b = 0.461806 - 0.041016I$	$5.32038 + 2.42918I$	0
$u = -1.216590 + 0.032056I$ $a = 0.875980 - 0.267951I$ $b = 0.254703 - 0.026118I$	$5.57248 - 1.21411I$	0
$u = -1.216590 - 0.032056I$ $a = 0.875980 + 0.267951I$ $b = 0.254703 + 0.026118I$	$5.57248 + 1.21411I$	0
$u = 1.217680 + 0.072944I$ $a = -0.945939 - 0.521474I$ $b = -0.520719 + 0.178092I$	$3.35181 + 6.81145I$	0
$u = 1.217680 - 0.072944I$ $a = -0.945939 + 0.521474I$ $b = -0.520719 - 0.178092I$	$3.35181 - 6.81145I$	0
$u = 1.225940 + 0.017958I$ $a = -0.929497 - 0.146641I$ $b = -0.173944 + 0.003829I$	$3.90070 - 3.03494I$	0
$u = 1.225940 - 0.017958I$ $a = -0.929497 + 0.146641I$ $b = -0.173944 - 0.003829I$	$3.90070 + 3.03494I$	0
$u = 0.331299 + 1.228400I$ $a = -0.469326 - 0.596666I$ $b = -1.180590 + 0.461415I$	$2.25963 + 0.51321I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.331299 - 1.228400I$ $a = -0.469326 + 0.596666I$ $b = -1.180590 - 0.461415I$	$2.25963 - 0.51321I$	0
$u = -0.070400 + 1.338550I$ $a = 0.640915 - 0.478369I$ $b = 1.58846 + 0.31260I$	$1.89300 + 5.19696I$	0
$u = -0.070400 - 1.338550I$ $a = 0.640915 + 0.478369I$ $b = 1.58846 - 0.31260I$	$1.89300 - 5.19696I$	0
$u = -0.618966 + 0.213699I$ $a = 0.289041 + 0.890207I$ $b = -1.50194 - 0.12865I$	$-0.81399 - 3.20969I$	$4.00000 + 3.78505I$
$u = -0.618966 - 0.213699I$ $a = 0.289041 - 0.890207I$ $b = -1.50194 + 0.12865I$	$-0.81399 + 3.20969I$	$4.00000 - 3.78505I$
$u = 1.36081 + 0.41935I$ $a = 0.504075 - 0.490516I$ $b = 0.335719 - 0.339804I$	$0.57021 + 4.89518I$	0
$u = 1.36081 - 0.41935I$ $a = 0.504075 + 0.490516I$ $b = 0.335719 + 0.339804I$	$0.57021 - 4.89518I$	0
$u = -0.548066 + 0.171348I$ $a = 0.622984 + 0.047785I$ $b = -0.920128 + 0.468198I$	$-0.74082 + 3.28237I$	$3.06985 - 2.32334I$
$u = -0.548066 - 0.171348I$ $a = 0.622984 - 0.047785I$ $b = -0.920128 - 0.468198I$	$-0.74082 - 3.28237I$	$3.06985 + 2.32334I$
$u = 1.36388 + 0.43901I$ $a = 0.543618 - 0.540469I$ $b = 0.202526 - 0.389545I$	$2.69460 + 13.23130I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.36388 - 0.43901I$ $a = 0.543618 + 0.540469I$ $b = 0.202526 + 0.389545I$	$2.69460 - 13.23130I$	0
$u = -1.36970 + 0.43404I$ $a = -0.516877 - 0.541045I$ $b = -0.218373 - 0.331413I$	$5.26875 - 8.10776I$	0
$u = -1.36970 - 0.43404I$ $a = -0.516877 + 0.541045I$ $b = -0.218373 + 0.331413I$	$5.26875 + 8.10776I$	0
$u = 0.493931 + 0.252338I$ $a = -0.609440 - 0.306431I$ $b = 0.494472 + 0.702216I$	$1.054520 + 0.810570I$	$7.06407 - 4.23502I$
$u = 0.493931 - 0.252338I$ $a = -0.609440 + 0.306431I$ $b = 0.494472 - 0.702216I$	$1.054520 - 0.810570I$	$7.06407 + 4.23502I$
$u = 0.534128 + 0.145589I$ $a = -0.396428 + 1.301490I$ $b = 1.318260 - 0.418949I$	$1.040460 - 0.925928I$	$6.71411 + 2.60230I$
$u = 0.534128 - 0.145589I$ $a = -0.396428 - 1.301490I$ $b = 1.318260 + 0.418949I$	$1.040460 + 0.925928I$	$6.71411 - 2.60230I$
$u = -1.40175 + 0.43210I$ $a = -0.433268 - 0.579226I$ $b = -0.187091 - 0.112631I$	$7.65450 - 5.79278I$	0
$u = -1.40175 - 0.43210I$ $a = -0.433268 + 0.579226I$ $b = -0.187091 + 0.112631I$	$7.65450 + 5.79278I$	0
$u = 1.38862 + 0.52166I$ $a = 0.715613 + 0.556426I$ $b = 2.22954 - 1.14573I$	$0.6898 + 19.3458I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.38862 - 0.52166I$ $a = 0.715613 - 0.556426I$ $b = 2.22954 + 1.14573I$	$0.6898 - 19.3458I$	0
$u = -1.39430 + 0.52630I$ $a = -0.705322 + 0.541088I$ $b = -2.20450 - 1.12922I$	$3.3933 - 14.1115I$	0
$u = -1.39430 - 0.52630I$ $a = -0.705322 - 0.541088I$ $b = -2.20450 + 1.12922I$	$3.3933 + 14.1115I$	0
$u = 1.42662 + 0.43230I$ $a = 0.380839 - 0.589100I$ $b = 0.196843 + 0.029715I$	$7.34633 + 0.64079I$	0
$u = 1.42662 - 0.43230I$ $a = 0.380839 + 0.589100I$ $b = 0.196843 - 0.029715I$	$7.34633 - 0.64079I$	0
$u = -0.265452 + 0.428627I$ $a = -1.32488 + 1.37649I$ $b = -1.153860 + 0.239152I$	$-1.83128 + 2.21574I$	$-1.91021 - 3.90777I$
$u = -0.265452 - 0.428627I$ $a = -1.32488 - 1.37649I$ $b = -1.153860 - 0.239152I$	$-1.83128 - 2.21574I$	$-1.91021 + 3.90777I$
$u = 1.40600 + 0.51747I$ $a = 0.673518 + 0.551712I$ $b = 2.21991 - 1.07852I$	$-1.44520 + 10.61230I$	0
$u = 1.40600 - 0.51747I$ $a = 0.673518 - 0.551712I$ $b = 2.21991 + 1.07852I$	$-1.44520 - 10.61230I$	0
$u = -1.40565 + 0.55799I$ $a = -0.688502 + 0.469329I$ $b = -2.09567 - 1.09859I$	$6.36962 - 11.59910I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.40565-0.55799I$ $a=-0.688502-0.469329I$ $b=-2.09567+1.09859I$	$6.36962+11.59910I$	0
$u=-1.24582+0.86613I$ $a=-0.587834+0.208633I$ $b=-1.88360-0.64005I$	$0.68393+2.45853I$	0
$u=-1.24582-0.86613I$ $a=-0.587834-0.208633I$ $b=-1.88360+0.64005I$	$0.68393-2.45853I$	0
$u=1.41588+0.58047I$ $a=0.666124+0.431988I$ $b=2.04803-1.05914I$	$6.35756+6.24409I$	0
$u=1.41588-0.58047I$ $a=0.666124-0.431988I$ $b=2.04803+1.05914I$	$6.35756-6.24409I$	0
$u=0.020033+0.427434I$ $a=2.49913+1.14547I$ $b=0.895052+0.739664I$	$-3.53579-0.04474I$	$-2.46644-0.41353I$
$u=0.020033-0.427434I$ $a=2.49913-1.14547I$ $b=0.895052-0.739664I$	$-3.53579+0.04474I$	$-2.46644+0.41353I$
$u=-0.373614+0.197542I$ $a=2.11982-0.74278I$ $b=-0.520379+1.023180I$	$-0.96055-5.90753I$	$-0.24664+9.37993I$
$u=-0.373614-0.197542I$ $a=2.11982+0.74278I$ $b=-0.520379-1.023180I$	$-0.96055+5.90753I$	$-0.24664-9.37993I$
$u=0.407927+0.082101I$ $a=-1.57057-1.37925I$ $b=0.722910+0.807246I$	$1.04244+1.79312I$	$5.29922-6.16096I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.407927 - 0.082101I$ $a = -1.57057 + 1.37925I$ $b = 0.722910 - 0.807246I$	$1.04244 - 1.79312I$	$5.29922 + 6.16096I$
$u = -0.063587 + 0.405526I$ $a = 2.82339 + 0.89838I$ $b = 0.703723 + 0.928875I$	$-2.78311 - 7.47461I$	$-1.05463 + 6.66610I$
$u = -0.063587 - 0.405526I$ $a = 2.82339 - 0.89838I$ $b = 0.703723 - 0.928875I$	$-2.78311 + 7.47461I$	$-1.05463 - 6.66610I$
$u = -1.59847 + 0.13072I$ $a = -0.228524 - 0.483802I$ $b = -1.103600 + 0.448792I$	$-1.19670 - 3.16016I$	0
$u = -1.59847 - 0.13072I$ $a = -0.228524 + 0.483802I$ $b = -1.103600 - 0.448792I$	$-1.19670 + 3.16016I$	0
$u = 0.042672 + 0.353002I$ $a = -3.04504 + 1.11704I$ $b = -0.605859 + 0.777493I$	$-0.32076 + 3.17904I$	$3.12260 - 2.64536I$
$u = 0.042672 - 0.353002I$ $a = -3.04504 - 1.11704I$ $b = -0.605859 - 0.777493I$	$-0.32076 - 3.17904I$	$3.12260 + 2.64536I$
$u = -0.252617 + 0.244076I$ $a = 3.02079 - 0.42092I$ $b = -0.129014 + 0.983795I$	$-1.30633 + 0.86062I$	$-2.81438 - 0.47339I$
$u = -0.252617 - 0.244076I$ $a = 3.02079 + 0.42092I$ $b = -0.129014 - 0.983795I$	$-1.30633 - 0.86062I$	$-2.81438 + 0.47339I$
$u = -1.58209 + 0.54345I$ $a = -0.490657 + 0.442532I$ $b = -2.05705 - 0.90475I$	$-2.07281 - 7.24639I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.58209-0.54345I$ $a=-0.490657-0.442532I$ $b=-2.05705+0.90475I$	$-2.07281+7.24639I$	0
$u=1.48865+0.78475I$ $a=0.545170+0.294464I$ $b=2.02388-0.85427I$	$3.14356+3.22083I$	0
$u=1.48865-0.78475I$ $a=0.545170-0.294464I$ $b=2.02388+0.85427I$	$3.14356-3.22083I$	0
$u=-1.56146+0.69154I$ $a=-0.089957-0.621770I$ $b=0.092627+0.952473I$	$0.23657+6.97702I$	0
$u=-1.56146-0.69154I$ $a=-0.089957+0.621770I$ $b=0.092627-0.952473I$	$0.23657-6.97702I$	0
$u=0.132835+0.246557I$ $a=-3.88097+0.27662I$ $b=-0.175037+0.757890I$	$0.41339+2.76637I$	$0.999591-0.880383I$
$u=0.132835-0.246557I$ $a=-3.88097-0.27662I$ $b=-0.175037-0.757890I$	$0.41339-2.76637I$	$0.999591+0.880383I$
$u=1.66926+0.48655I$ $a=0.182810-0.545721I$ $b=0.379844+0.808584I$	$3.28885-1.37430I$	0
$u=1.66926-0.48655I$ $a=0.182810+0.545721I$ $b=0.379844-0.808584I$	$3.28885+1.37430I$	0

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$u^{119}+47u^{118}+\cdots+76u-1$
c_2, c_5	$u^{119}+u^{118}+\cdots+4u-1$
c_3	$u^{119}-11u^{118}+\cdots-44u-41$
c_4	$u^{119}+17u^{118}+\cdots-9590288u-2011573$
c_6, c_9	$u^{119}-u^{118}+\cdots-10u^3-1$
c_7	$u^{119}+5u^{118}+\cdots-2541506u-300233$
c_8, c_{12}	$u^{119}-5u^{118}+\cdots+2u-1$
c_{10}	$u^{119}-3u^{118}+\cdots-4u+1$
c_{11}	$u^{119}+59u^{118}+\cdots-10u^2-1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$y^{119}+51y^{118}+\cdots+3612y-1$
c_2, c_5	$y^{119}+47y^{118}+\cdots+76y-1$
c_3	$y^{119}-29y^{118}+\cdots-1094568y-1681$
c_4	$y^{119}-97y^{118}+\cdots+36045891989112y-4046425934329$
c_6, c_9	$y^{119}-85y^{118}+\cdots+10y^2-1$
c_7	$y^{119}-53y^{118}+\cdots-333755460568y-90139854289$
c_8, c_{12}	$y^{119}+59y^{118}+\cdots-10y^2-1$
c_{10}	$y^{119}-5y^{118}+\cdots+36y-1$
c_{11}	$y^{119}+3y^{118}+\cdots-20y-1$