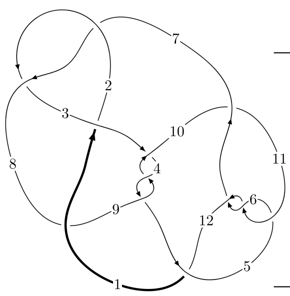
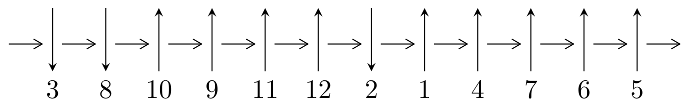
$12a_{0749}$ $(K12a_{0749})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & 1.15464 \times 10^{129} u^{82} - 2.12036 \times 10^{129} u^{81} + \cdots + 1.05249 \times 10^{130} b - 2.56113 \times 10^{129}, \\
& - 2.50662 \times 10^{130} u^{82} + 2.53263 \times 10^{130} u^{81} + \cdots + 1.05249 \times 10^{130} a + 1.83078 \times 10^{131}, \\
& u^{83} - u^{82} + \cdots - 16u + 1 \rangle \\
I_2^u = \langle & a^4 u - a^3 u - 4a^3 - 5a^2 u + 3a^2 + 2au + b + 2a, \\
& a^6 + 6a^5 u - a^5 - 5a^4 u - 14a^4 - 16a^3 u + 8a^3 + 4a^2 u + 10a^2 + 4au + a + u, \ u^2 + 1 \rangle
\end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 95 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. $\boldsymbol{I_1^u = \langle 1.15 \times 10^{129} u^{82} - 2.12 \times 10^{129} u^{81} + \cdots + 1.05 \times 10^{130} b - 2.56 \times 10^{129},\ -2.51 \times 10^{130} u^{82} + 2.53 \times 10^{130} u^{81} + \cdots + 1.05 \times 10^{130} a + 1.83 \times 10^{131},\ u^{83} - u^{82} + \cdots - 16u + 1 \rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 2.38162u^{82} - 2.40633u^{81} + \cdots + 211.444u - 17.3948 \\ -0.109706u^{82} + 0.201462u^{81} + \cdots - 12.5813u + 0.243341 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 2.02156u^{82} - 1.83927u^{81} + \cdots + 180.154u - 20.2709 \\ -0.412232u^{82} + 0.394094u^{81} + \cdots - 14.9721u + 0.905614 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 1.60933u^{82} - 1.44517u^{81} + \cdots + 165.182u - 19.3652 \\ -0.412232u^{82} + 0.394094u^{81} + \cdots - 14.9721u + 0.905614 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0.793212u^{82} - 0.884660u^{81} + \cdots + 82.5878u + 3.62677 \\ -0.0517555u^{82} + 0.217321u^{81} + \cdots + 5.93966u - 1.53522 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 2.60524u^{82} - 2.10688u^{81} + \cdots + 230.248u - 16.5091 \\ -0.204129u^{82} + 0.0772507u^{81} + \cdots - 9.17332u - 0.257104 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^2 + 1 \\ -u^4 - 2u^2 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 2.04028u^{82} - 1.82475u^{81} + \cdots + 181.225u - 20.1356 \\ -0.453441u^{82} + 0.484379u^{81} + \cdots - 15.0883u + 0.934102 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 3.21049u^{82} - 3.23128u^{81} + \cdots + 320.180u - 24.9601 \\ 0.0333591u^{82} + 0.0548937u^{81} + \cdots - 18.6788u + 0.279037 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.292915u^{82} - 0.00299820u^{81} + \cdots - 0.231972u + 11.2199$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{83} + 43u^{82} + \cdots + 210u + 25$
c_2, c_7	$u^{83} + u^{82} + \cdots + 21u^2 - 5$
c_3, c_4, c_9	$u^{83} + u^{82} + \cdots - 16u - 1$
c_5, c_6, c_{11}	$u^{83} + u^{82} + \cdots - 10u - 1$
c_8	$u^{83} + 3u^{82} + \cdots + 21790u - 3655$
c_{10}, c_{12}	$u^{83} - 3u^{82} + \cdots + 4852u + 517$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{83}+y^{82}+\cdots+4550y-625$
c_2, c_7	$y^{83}-43y^{82}+\cdots+210y-25$
c_3, c_4, c_9	$y^{83}+83y^{82}+\cdots+88y-1$
c_5, c_6, c_{11}	$y^{83}-69y^{82}+\cdots+44y-1$
c_8	$y^{83}+41y^{82}+\cdots+762679210y-13359025$
c_{10}, c_{12}	$y^{83}+63y^{82}+\cdots+14835624y-267289$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.828176 + 0.557418I$ $a = 0.26185 - 1.69427I$ $b = -1.155510 + 0.462789I$	$-2.43646 + 2.58116I$	0
$u = 0.828176 - 0.557418I$ $a = 0.26185 + 1.69427I$ $b = -1.155510 - 0.462789I$	$-2.43646 - 2.58116I$	0
$u = -0.880668 + 0.478159I$ $a = -0.35382 - 1.77762I$ $b = 1.159560 + 0.498988I$	$-5.82520 - 6.87062I$	0
$u = -0.880668 - 0.478159I$ $a = -0.35382 + 1.77762I$ $b = 1.159560 - 0.498988I$	$-5.82520 + 6.87062I$	0
$u = 0.913983 + 0.416889I$ $a = 0.42302 - 1.83644I$ $b = -1.159300 + 0.525076I$	$-1.42155 + 11.14220I$	0
$u = 0.913983 - 0.416889I$ $a = 0.42302 + 1.83644I$ $b = -1.159300 - 0.525076I$	$-1.42155 - 11.14220I$	0
$u = 0.792210 + 0.634260I$ $a = -0.556105 - 0.320556I$ $b = 1.160410 + 0.345717I$	$-2.67272 + 2.90389I$	0
$u = 0.792210 - 0.634260I$ $a = -0.556105 + 0.320556I$ $b = 1.160410 - 0.345717I$	$-2.67272 - 2.90389I$	0
$u = -0.084056 + 1.041490I$ $a = 0.000756 - 1.089570I$ $b = 0.800253 + 0.494787I$	$-1.54448 - 2.06060I$	0
$u = -0.084056 - 1.041490I$ $a = 0.000756 + 1.089570I$ $b = 0.800253 - 0.494787I$	$-1.54448 + 2.06060I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.754065 + 0.726286I$ $a = 0.524056 - 0.394935I$ $b = -1.155730 + 0.389682I$	$-6.60258 + 1.33321I$	0
$u = -0.754065 - 0.726286I$ $a = 0.524056 + 0.394935I$ $b = -1.155730 - 0.389682I$	$-6.60258 - 1.33321I$	0
$u = -0.378493 + 1.015650I$ $a = 0.165756 - 1.219100I$ $b = 0.970336 + 0.171230I$	$-0.90265 - 3.43454I$	0
$u = -0.378493 - 1.015650I$ $a = 0.165756 + 1.219100I$ $b = 0.970336 - 0.171230I$	$-0.90265 + 3.43454I$	0
$u = 0.720759 + 0.819102I$ $a = -0.503846 - 0.474505I$ $b = 1.152480 + 0.431957I$	$-2.66068 - 5.56325I$	0
$u = 0.720759 - 0.819102I$ $a = -0.503846 + 0.474505I$ $b = 1.152480 - 0.431957I$	$-2.66068 + 5.56325I$	0
$u = 0.255809 + 1.067630I$ $a = -0.155725 - 1.352350I$ $b = -0.795173 + 0.055550I$	$-3.85075 + 0.27233I$	0
$u = 0.255809 - 1.067630I$ $a = -0.155725 + 1.352350I$ $b = -0.795173 - 0.055550I$	$-3.85075 - 0.27233I$	0
$u = -0.204373 + 1.083280I$ $a = -0.01086 - 1.54055I$ $b = 0.683616 - 0.078181I$	$0.80097 + 3.01593I$	0
$u = -0.204373 - 1.083280I$ $a = -0.01086 + 1.54055I$ $b = 0.683616 + 0.078181I$	$0.80097 - 3.01593I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.782147 + 0.421744I$ $a = 0.65089 - 1.35866I$ $b = -0.212910 + 0.749136I$	$1.33540 - 6.35685I$	$6.00000 + 5.58288I$
$u = -0.782147 - 0.421744I$ $a = 0.65089 + 1.35866I$ $b = -0.212910 - 0.749136I$	$1.33540 + 6.35685I$	$6.00000 - 5.58288I$
$u = -0.621544 + 0.602167I$ $a = 0.432472 - 1.247140I$ $b = -0.056022 + 0.667459I$	$0.62596 + 1.63981I$	$6.00000 + 0.I$
$u = -0.621544 - 0.602167I$ $a = 0.432472 + 1.247140I$ $b = -0.056022 - 0.667459I$	$0.62596 - 1.63981I$	$6.00000 + 0.I$
$u = 0.710823 + 0.487393I$ $a = -0.57026 - 1.29476I$ $b = 0.155215 + 0.709269I$	$-2.94696 + 2.31361I$	$3.43042 - 3.33064I$
$u = 0.710823 - 0.487393I$ $a = -0.57026 + 1.29476I$ $b = 0.155215 - 0.709269I$	$-2.94696 - 2.31361I$	$3.43042 + 3.33064I$
$u = -0.287984 + 1.116130I$ $a = 0.259716 - 0.868717I$ $b = -0.993147 + 0.583252I$	$1.74339 + 2.15963I$	0
$u = -0.287984 - 1.116130I$ $a = 0.259716 + 0.868717I$ $b = -0.993147 - 0.583252I$	$1.74339 - 2.15963I$	0
$u = 0.279482 + 1.139960I$ $a = 0.020964 - 1.246390I$ $b = -0.565039 + 0.608087I$	$2.98511 + 2.56133I$	0
$u = 0.279482 - 1.139960I$ $a = 0.020964 + 1.246390I$ $b = -0.565039 - 0.608087I$	$2.98511 - 2.56133I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.176144 + 1.296320I$ $a = 0.611233 - 0.029819I$ $b = -0.248951 - 0.649703I$	$1.94452 + 3.81460I$	0
$u = 0.176144 - 1.296320I$ $a = 0.611233 + 0.029819I$ $b = -0.248951 + 0.649703I$	$1.94452 - 3.81460I$	0
$u = 0.649068 + 0.077548I$ $a = -1.19948 - 1.21441I$ $b = 0.465751 + 0.631327I$	$6.17107 + 0.86345I$	$14.3969 - 0.7384I$
$u = 0.649068 - 0.077548I$ $a = -1.19948 + 1.21441I$ $b = 0.465751 - 0.631327I$	$6.17107 - 0.86345I$	$14.3969 + 0.7384I$
$u = -0.610090 + 0.179998I$ $a = -0.14723 - 2.51696I$ $b = 1.030630 + 0.544608I$	$4.53717 - 5.47882I$	$11.04158 + 6.52708I$
$u = -0.610090 - 0.179998I$ $a = -0.14723 + 2.51696I$ $b = 1.030630 - 0.544608I$	$4.53717 + 5.47882I$	$11.04158 - 6.52708I$
$u = 0.477840 + 0.410372I$ $a = -0.36614 - 1.97770I$ $b = -1.023630 + 0.465904I$	$-0.86580 + 4.07227I$	$5.56865 - 9.23249I$
$u = 0.477840 - 0.410372I$ $a = -0.36614 + 1.97770I$ $b = -1.023630 - 0.465904I$	$-0.86580 - 4.07227I$	$5.56865 + 9.23249I$
$u = -0.067862 + 1.384400I$ $a = -0.196273 + 0.154900I$ $b = 0.083261 - 0.720975I$	$-3.97118 - 1.82061I$	0
$u = -0.067862 - 1.384400I$ $a = -0.196273 - 0.154900I$ $b = 0.083261 + 0.720975I$	$-3.97118 + 1.82061I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.001191 + 1.386730I$ $a = 1.57028 + 0.32567I$ $b = 1.114940 - 0.388135I$	$-1.50250 - 0.63171I$	0
$u = 0.001191 - 1.386730I$ $a = 1.57028 - 0.32567I$ $b = 1.114940 + 0.388135I$	$-1.50250 + 0.63171I$	0
$u = 0.028734 + 1.407100I$ $a = -0.278899 - 1.167510I$ $b = 0.869859 + 0.754641I$	$-1.95541 + 1.26508I$	0
$u = 0.028734 - 1.407100I$ $a = -0.278899 + 1.167510I$ $b = 0.869859 - 0.754641I$	$-1.95541 - 1.26508I$	0
$u = 0.045458 + 1.407770I$ $a = 0.248108 - 1.206250I$ $b = -0.824993 + 0.766512I$	$-5.76997 + 2.85289I$	0
$u = 0.045458 - 1.407770I$ $a = 0.248108 + 1.206250I$ $b = -0.824993 - 0.766512I$	$-5.76997 - 2.85289I$	0
$u = -0.586055$ $a = 0.708998$ $b = -0.913508$	1.91063	6.04100
$u = -0.11242 + 1.41303I$ $a = -0.224623 - 1.243150I$ $b = 0.783760 + 0.782633I$	$-1.69873 - 6.98576I$	0
$u = -0.11242 - 1.41303I$ $a = -0.224623 + 1.243150I$ $b = 0.783760 - 0.782633I$	$-1.69873 + 6.98576I$	0
$u = -0.20015 + 1.40506I$ $a = -1.30473 + 1.45890I$ $b = -1.132050 - 0.511264I$	$-0.59248 - 8.34419I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.20015-1.40506I$ $a=-1.30473-1.45890I$ $b=-1.132050+0.511264I$	$-0.59248+8.34419I$	0
$u=-0.04676+1.47166I$ $a=-1.166650+0.648335I$ $b=-1.170280-0.419278I$	$-7.49627-2.14085I$	0
$u=-0.04676-1.47166I$ $a=-1.166650-0.648335I$ $b=-1.170280+0.419278I$	$-7.49627+2.14085I$	0
$u=0.13948+1.47980I$ $a=1.09205+1.05374I$ $b=1.173810-0.475339I$	$-7.09658+6.25907I$	0
$u=0.13948-1.47980I$ $a=1.09205-1.05374I$ $b=1.173810+0.475339I$	$-7.09658-6.25907I$	0
$u=-0.29281+1.49818I$ $a=-0.618256+0.621581I$ $b=0.275741-0.898548I$	$-4.88602-10.29530I$	0
$u=-0.29281-1.49818I$ $a=-0.618256-0.621581I$ $b=0.275741+0.898548I$	$-4.88602+10.29530I$	0
$u=-0.444092+0.145528I$ $a=0.978477-0.640428I$ $b=-0.408435+0.412605I$	$0.852672-0.232931I$	$12.03073+2.51602I$
$u=-0.444092-0.145528I$ $a=0.978477+0.640428I$ $b=-0.408435-0.412605I$	$0.852672+0.232931I$	$12.03073-2.51602I$
$u=-0.20380+1.52010I$ $a=-0.431672+0.572184I$ $b=0.193463-0.891300I$	$-6.27329-1.34438I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.20380-1.52010I$ $a=-0.431672-0.572184I$ $b=0.193463+0.891300I$	$-6.27329+1.34438I$	0
$u=0.25612+1.51278I$ $a=0.537026+0.607048I$ $b=-0.240717-0.899184I$	$-9.45956+5.87960I$	0
$u=0.25612-1.51278I$ $a=0.537026-0.607048I$ $b=-0.240717+0.899184I$	$-9.45956-5.87960I$	0
$u=0.34667+1.51698I$ $a=0.59504+1.62681I$ $b=1.193840-0.587206I$	$-7.6640+15.7308I$	0
$u=0.34667-1.51698I$ $a=0.59504-1.62681I$ $b=1.193840+0.587206I$	$-7.6640-15.7308I$	0
$u=0.023429+0.440080I$ $a=0.993538-0.407074I$ $b=0.936093+0.425987I$	$-1.28387-1.68323I$	$3.77150-0.35257I$
$u=0.023429-0.440080I$ $a=0.993538+0.407074I$ $b=0.936093-0.425987I$	$-1.28387+1.68323I$	$3.77150+0.35257I$
$u=-0.399913+0.171939I$ $a=2.65180+1.24043I$ $b=-0.711891-0.566818I$	$3.50631-5.22844I$	$11.78714+6.73129I$
$u=-0.399913-0.171939I$ $a=2.65180-1.24043I$ $b=-0.711891+0.566818I$	$3.50631+5.22844I$	$11.78714-6.73129I$
$u=-0.31801+1.53692I$ $a=-0.61042+1.52370I$ $b=-1.204090-0.572653I$	$-12.3754-11.2511I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.31801-1.53692I$ $a=-0.61042-1.52370I$ $b=-1.204090+0.572653I$	$-12.3754+11.2511I$	0
$u=\ \ 0.27270+1.55039I$ $a=\ \ 0.66002+1.38973I$ $b=\ \ 1.211490-0.549265I$	$-9.35289+6.58290I$	0
$u=\ \ 0.27270-1.55039I$ $a=\ \ 0.66002-1.38973I$ $b=\ \ 1.211490+0.549265I$	$-9.35289-6.58290I$	0
$u=\ \ 0.23240+1.57121I$ $a=-0.456742-0.075976I$ $b=-1.267760-0.252241I$	$-9.99924+6.60552I$	0
$u=\ \ 0.23240-1.57121I$ $a=-0.456742+0.075976I$ $b=-1.267760+0.252241I$	$-9.99924-6.60552I$	0
$u=-0.18866+1.59001I$ $a=\ \ 0.490949+0.040309I$ $b=\ \ 1.270750-0.282944I$	$-14.4041-2.0103I$	0
$u=-0.18866-1.59001I$ $a=\ \ 0.490949-0.040309I$ $b=\ \ 1.270750+0.282944I$	$-14.4041+2.0103I$	0
$u=\ \ 0.13358+1.59807I$ $a=-0.552059+0.174631I$ $b=-1.266410-0.318036I$	$-10.97300-2.69837I$	0
$u=\ \ 0.13358-1.59807I$ $a=-0.552059-0.174631I$ $b=-1.266410+0.318036I$	$-10.97300+2.69837I$	0
$u=\ \ 0.301350+0.041219I$ $a=-2.81466-0.24393I$ $b=\ \ 0.742127-0.477090I$	$-0.90760+1.95680I$	$5.79568-4.89911I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.301350 - 0.041219I$ $a = -2.81466 + 0.24393I$ $b = 0.742127 + 0.477090I$	$-0.90760 - 1.95680I$	$5.79568 + 4.89911I$
$u = 0.0855141 + 0.0580346I$ $a = 1.99596 + 11.61360I$ $b = -0.878605 - 0.525027I$	$3.03134 + 0.82073I$	$11.47240 + 0.34762I$
$u = 0.0855141 - 0.0580346I$ $a = 1.99596 - 11.61360I$ $b = -0.878605 + 0.525027I$	$3.03134 - 0.82073I$	$11.47240 - 0.34762I$

II. $I_2^u =$
$\langle a^4u-a^3u-4a^3-5a^2u+3a^2+2au+b+2a,\ 6a^5u-5a^4u+\cdots+10a^2+a,\ u^2+1\rangle$

(i) Arc colorings

$$a_3 = \begin{pmatrix}1\\0\end{pmatrix}$$

$$a_{10} = \begin{pmatrix}0\\u\end{pmatrix}$$

$$a_4 = \begin{pmatrix}1\\1\end{pmatrix}$$

$$a_8 = \begin{pmatrix}a\\-a^4u+a^3u+4a^3+5a^2u-3a^2-2au-2a\end{pmatrix}$$

$$a_2 = \begin{pmatrix}a^5u-a^4u-4a^4-5a^3u+3a^3+2a^2u+2a^2+1\\-a^4-4a^3u+a^3+3a^2u+5a^2+2au-2a-1\end{pmatrix}$$

$$a_1 = \begin{pmatrix}a^5u-a^4u-5a^4-9a^3u+4a^3+5a^2u+7a^2+2au-2a\\-a^4-4a^3u+a^3+3a^2u+5a^2+2au-2a-1\end{pmatrix}$$

$$a_7 = \begin{pmatrix}-a^5-5a^4u+a^4+4a^3u+9a^3+7a^2u-5a^2-2au-2a\\-a^4u+a^3u+4a^3+5a^2u-3a^2-2au-2a-u\end{pmatrix}$$

$$a_{11} = \begin{pmatrix}-a^3u+3a^2+3au+u-1\\a+2u\end{pmatrix}$$

$$a_9 = \begin{pmatrix}-u\\0\end{pmatrix}$$

$$a_5 = \begin{pmatrix}0\\1\end{pmatrix}$$

$$a_{12} = \begin{pmatrix}a^5u-a^4u-5a^4-9a^3u+4a^3+5a^2u+7a^2+2au-2a\\a^5u-a^4u-6a^4-13a^3u+5a^3+8a^2u+12a^2+4au-4a-1\end{pmatrix}$$

$$a_6 = \begin{pmatrix}-a^5-5a^4u+a^4+4a^3u+10a^3+10a^2u-5a^2-2au-5a-u\\-a^4u+5a^3+9a^2u+au-7a-2u-1\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4a^5-20a^4u+8a^4+32a^3u+32a^3+16a^2u-40a^2-16au+4$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u^2-u+1)^6$
c_2, c_7, c_8	$(u^4-u^2+1)^3$
c_3, c_4, c_9	$(u^2+1)^6$
c_5, c_6, c_{11}	$(u^6-3u^4+2u^2+1)^2$
c_{10}, c_{12}	$(u^6+u^4+2u^2+1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$(y^2+y+1)^6$
c_2, c_7, c_8	$(y^2-y+1)^6$
c_3, c_4, c_9	$(y+1)^{12}$
c_5, c_6, c_{11}	$(y^3-3y^2+2y+1)^4$
c_{10}, c_{12}	$(y^3+y^2+2y+1)^4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.000000I$ $a = 1.083790 - 0.612547I$ $b = 0.866025 + 0.500000I$	$1.37919 + 0.79824I$	$5.50976 + 0.48465I$
$u = 1.000000I$ $a = -0.377439 - 0.346257I$ $b = -0.866025 + 0.500000I$	$-2.75839 + 2.02988I$	$-1.01951 - 3.46410I$
$u = 1.000000I$ $a = -0.37744 - 1.65374I$ $b = 0.866025 + 0.500000I$	$-2.75839 - 2.02988I$	$-1.01951 + 3.46410I$
$u = 1.000000I$ $a = -0.206350 + 0.132315I$ $b = 0.866025 + 0.500000I$	$1.37919 - 4.85801I$	$5.50976 + 6.44355I$
$u = 1.000000I$ $a = 1.08379 - 1.38745I$ $b = -0.866025 + 0.500000I$	$1.37919 - 0.79824I$	$5.50976 - 0.48465I$
$u = 1.000000I$ $a = -0.20635 - 2.13232I$ $b = -0.866025 + 0.500000I$	$1.37919 + 4.85801I$	$5.50976 - 6.44355I$
$u = -1.000000I$ $a = 1.083790 + 0.612547I$ $b = 0.866025 - 0.500000I$	$1.37919 - 0.79824I$	$5.50976 - 0.48465I$
$u = -1.000000I$ $a = -0.377439 + 0.346257I$ $b = -0.866025 - 0.500000I$	$-2.75839 - 2.02988I$	$-1.01951 + 3.46410I$
$u = -1.000000I$ $a = -0.37744 + 1.65374I$ $b = 0.866025 - 0.500000I$	$-2.75839 + 2.02988I$	$-1.01951 - 3.46410I$
$u = -1.000000I$ $a = -0.206350 - 0.132315I$ $b = 0.866025 - 0.500000I$	$1.37919 + 4.85801I$	$5.50976 - 6.44355I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \quad - 1.000000I$ $a = 1.08379 + 1.38745I$ $b = -0.866025 - 0.500000I$	$1.37919 + 0.79824I$	$5.50976 + 0.48465I$
$u = \quad - 1.000000I$ $a = -0.20635 + 2.13232I$ $b = -0.866025 - 0.500000I$	$1.37919 - 4.85801I$	$5.50976 + 6.44355I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^2-u+1)^6)(u^{83}+43u^{82}+\cdots+210u+25)$
c_2, c_7	$((u^4-u^2+1)^3)(u^{83}+u^{82}+\cdots+21u^2-5)$
c_3, c_4, c_9	$((u^2+1)^6)(u^{83}+u^{82}+\cdots-16u-1)$
c_5, c_6, c_{11}	$((u^6-3u^4+2u^2+1)^2)(u^{83}+u^{82}+\cdots-10u-1)$
c_8	$((u^4-u^2+1)^3)(u^{83}+3u^{82}+\cdots+21790u-3655)$
c_{10}, c_{12}	$((u^6+u^4+2u^2+1)^2)(u^{83}-3u^{82}+\cdots+4852u+517)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^2+y+1)^6)(y^{83}+y^{82}+\cdots+4550y-625)$
c_2, c_7	$((y^2-y+1)^6)(y^{83}-43y^{82}+\cdots+210y-25)$
c_3, c_4, c_9	$((y+1)^{12})(y^{83}+83y^{82}+\cdots+88y-1)$
c_5, c_6, c_{11}	$((y^3-3y^2+2y+1)^4)(y^{83}-69y^{82}+\cdots+44y-1)$
c_8	$((y^2-y+1)^6)(y^{83}+41y^{82}+\cdots+7.62679\times10^8y-1.33590\times10^7)$
c_{10}, c_{12}	$((y^3+y^2+2y+1)^4)(y^{83}+63y^{82}+\cdots+1.48356\times10^7y-267289)$