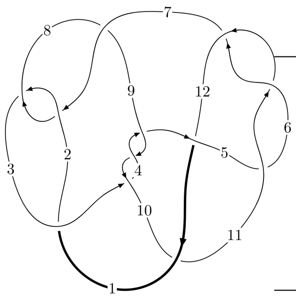
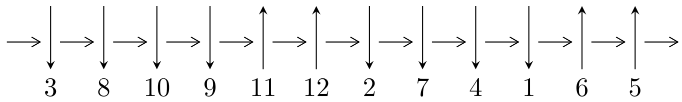
$12a_{0748}$ $(K12a_{0748})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & -1.87140 \times 10^{123} u^{79} + 2.18263 \times 10^{123} u^{78} + \cdots + 7.17978 \times 10^{123} b - 6.11537 \times 10^{123}, \\
& -1.40244 \times 10^{124} u^{79} + 1.63676 \times 10^{124} u^{78} + \cdots + 7.17978 \times 10^{123} a - 6.01317 \times 10^{124}, \\
& u^{80} - u^{79} + \cdots + 14u + 1 \rangle \\
I_2^u = \langle & -a^4 u - a^3 u - 4a^3 + 5a^2 u - 3a^2 + 2au + b + 2a, \\
& a^6 - 6a^5 u + a^5 - 5a^4 u - 14a^4 + 16a^3 u - 8a^3 + 4a^2 u + 10a^2 - 4au - a + u,\ u^2 + 1 \rangle
\end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 92 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. $\boldsymbol{I_1^u = \langle -1.87 \times 10^{123} u^{79} + 2.18 \times 10^{123} u^{78} + \cdots + 7.18 \times 10^{123} b - 6.12 \times 10^{123},\ -1.40 \times 10^{124} u^{79} + 1.64 \times 10^{124} u^{78} + \cdots + 7.18 \times 10^{123} a - 6.01 \times 10^{124},\ u^{80} - u^{79} + \cdots + 14u + 1 \rangle}$

(i) Arc colorings

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

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

$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1.95331u^{79} - 2.27968u^{78} + \cdots + 136.278u + 8.37515 \\ 0.260648u^{79} - 0.303997u^{78} + \cdots + 19.3110u + 0.851748 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1.49413u^{79} - 1.06018u^{78} + \cdots + 149.804u + 16.0944 \\ 0.0909719u^{79} - 0.306689u^{78} + \cdots + 10.2215u + 0.390652 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1.58510u^{79} - 1.36687u^{78} + \cdots + 160.025u + 16.4850 \\ 0.0909719u^{79} - 0.306689u^{78} + \cdots + 10.2215u + 0.390652 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 2.28061u^{79} - 2.53229u^{78} + \cdots + 165.250u + 9.03889 \\ 0.337528u^{79} - 0.365997u^{78} + \cdots + 17.0768u + 0.443473 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.824595u^{79} - 0.983888u^{78} + \cdots + 28.2566u - 6.24653 \\ -0.133058u^{79} + 0.0689018u^{78} + \cdots - 3.41790u - 1.33483 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1.41068u^{79} - 0.973288u^{78} + \cdots + 145.197u + 15.9700 \\ 0.0510447u^{79} - 0.267505u^{78} + \cdots + 9.59013u + 0.315140 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 2.87903u^{79} - 3.41840u^{78} + \cdots + 217.745u + 15.4041 \\ 0.279564u^{79} - 0.233512u^{78} + \cdots + 21.0602u + 0.435870 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.928763u^{79} + 1.11812u^{78} + \cdots - 28.6561u - 6.34554$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$u^{80} + 25u^{79} + \cdots + 60u + 25$
c_2, c_7	$u^{80} + u^{79} + \cdots - 6u^2 + 5$
c_3, c_4, c_9	$u^{80} + u^{79} + \cdots - 14u + 1$
c_5, c_6, c_{11}	$u^{80} + u^{79} + \cdots - 10u + 1$
c_{10}	$u^{80} - 15u^{79} + \cdots - 39596u + 1033$
c_{12}	$u^{80} - 3u^{79} + \cdots + 13830u - 989$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8	$y^{80} + 67y^{79} + \cdots - 50800y + 625$
c_2, c_7	$y^{80} - 25y^{79} + \cdots - 60y + 25$
c_3, c_4, c_9	$y^{80} + 81y^{79} + \cdots - 18y + 1$
c_5, c_6, c_{11}	$y^{80} - 75y^{79} + \cdots - 38y + 1$
c_{10}	$y^{80} + 45y^{79} + \cdots - 124136878y + 1067089$
c_{12}	$y^{80} - 15y^{79} + \cdots - 85902818y + 978121$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.101733 + 0.978535I$ $a = -0.033701 + 1.093690I$ $b = -0.799435 - 0.496821I$	$1.74572 - 2.06211I$	0
$u = 0.101733 - 0.978535I$ $a = -0.033701 - 1.093690I$ $b = -0.799435 + 0.496821I$	$1.74572 + 2.06211I$	0
$u = 0.932168 + 0.451237I$ $a = -0.864775 + 1.096610I$ $b = -0.980241 - 0.768254I$	$8.13397 - 10.72160I$	0
$u = 0.932168 - 0.451237I$ $a = -0.864775 - 1.096610I$ $b = -0.980241 + 0.768254I$	$8.13397 + 10.72160I$	0
$u = -0.671867 + 0.691792I$ $a = 0.251308 + 0.385725I$ $b = -0.848915 - 0.748997I$	$3.18517 - 2.17478I$	0
$u = -0.671867 - 0.691792I$ $a = 0.251308 - 0.385725I$ $b = -0.848915 + 0.748997I$	$3.18517 + 2.17478I$	0
$u = -0.886988 + 0.540330I$ $a = 0.171370 + 0.233050I$ $b = -0.777836 - 0.830954I$	$8.75856 + 4.73589I$	0
$u = -0.886988 - 0.540330I$ $a = 0.171370 - 0.233050I$ $b = -0.777836 + 0.830954I$	$8.75856 - 4.73589I$	0
$u = -0.843750 + 0.446002I$ $a = 0.86480 + 1.19833I$ $b = 0.959903 - 0.744068I$	$2.34197 + 7.34848I$	0
$u = -0.843750 - 0.446002I$ $a = 0.86480 - 1.19833I$ $b = 0.959903 + 0.744068I$	$2.34197 - 7.34848I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.773404 + 0.533895I$ $a = -0.243368 + 0.246513I$ $b = 0.781008 - 0.781882I$	$2.88709 - 1.58183I$	0
$u = 0.773404 - 0.533895I$ $a = -0.243368 - 0.246513I$ $b = 0.781008 + 0.781882I$	$2.88709 + 1.58183I$	0
$u = 0.211758 + 1.045890I$ $a = 0.01122 + 1.50037I$ $b = -0.625781 + 0.073783I$	$4.13037 + 3.00225I$	0
$u = 0.211758 - 1.045890I$ $a = 0.01122 - 1.50037I$ $b = -0.625781 - 0.073783I$	$4.13037 - 3.00225I$	0
$u = -0.820630 + 0.689518I$ $a = 0.610056 + 1.148510I$ $b = 0.885344 - 0.795442I$	$9.21149 + 1.01170I$	0
$u = -0.820630 - 0.689518I$ $a = 0.610056 - 1.148510I$ $b = 0.885344 + 0.795442I$	$9.21149 - 1.01170I$	0
$u = 0.732575 + 0.554489I$ $a = -0.69837 + 1.29546I$ $b = -0.905606 - 0.738630I$	$3.00895 - 3.47648I$	0
$u = 0.732575 - 0.554489I$ $a = -0.69837 - 1.29546I$ $b = -0.905606 + 0.738630I$	$3.00895 + 3.47648I$	0
$u = -0.218430 + 1.086470I$ $a = 0.214726 + 1.351440I$ $b = 0.730735 - 0.049838I$	$-0.492772 + 0.251831I$	0
$u = -0.218430 - 1.086470I$ $a = 0.214726 - 1.351440I$ $b = 0.730735 + 0.049838I$	$-0.492772 - 0.251831I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.775030 + 0.799999I$ $a = -0.154885 + 0.388889I$ $b = 0.889389 - 0.791856I$	$9.19741 + 4.94494I$	0
$u = 0.775030 - 0.799999I$ $a = -0.154885 - 0.388889I$ $b = 0.889389 + 0.791856I$	$9.19741 - 4.94494I$	0
$u = -0.362426 + 1.100800I$ $a = 0.165931 + 1.100420I$ $b = 0.583672 - 0.661495I$	$6.51022 + 2.68209I$	0
$u = -0.362426 - 1.100800I$ $a = 0.165931 - 1.100420I$ $b = 0.583672 + 0.661495I$	$6.51022 - 2.68209I$	0
$u = 0.295810 + 1.134100I$ $a = -0.003573 + 0.715062I$ $b = 1.001540 - 0.585236I$	$5.23659 + 2.17110I$	0
$u = 0.295810 - 1.134100I$ $a = -0.003573 - 0.715062I$ $b = 1.001540 + 0.585236I$	$5.23659 - 2.17110I$	0
$u = 0.241057 + 1.170000I$ $a = -0.414456 + 1.145130I$ $b = -0.921127 - 0.116588I$	$2.45641 - 3.21481I$	0
$u = 0.241057 - 1.170000I$ $a = -0.414456 - 1.145130I$ $b = -0.921127 + 0.116588I$	$2.45641 + 3.21481I$	0
$u = -0.345580 + 0.634269I$ $a = -0.285955 + 0.408231I$ $b = 0.015644 + 0.475314I$	$4.83976 + 3.51631I$	$3.10687 - 4.94951I$
$u = -0.345580 - 0.634269I$ $a = -0.285955 - 0.408231I$ $b = 0.015644 - 0.475314I$	$4.83976 - 3.51631I$	$3.10687 + 4.94951I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.054082 + 1.332890I$ $a = -0.282249 + 0.830000I$ $b = -1.074650 - 0.347834I$	$2.46046 - 1.87752I$	0
$u = 0.054082 - 1.332890I$ $a = -0.282249 - 0.830000I$ $b = -1.074650 + 0.347834I$	$2.46046 + 1.87752I$	0
$u = 0.640087$ $a = 1.64399$ $b = 0.964662$	-1.04598	-8.67610
$u = 0.575302 + 0.268375I$ $a = 1.99533 + 0.24230I$ $b = 0.981751 + 0.220824I$	$1.92420 - 6.00380I$	$-5.29609 + 7.13833I$
$u = 0.575302 - 0.268375I$ $a = 1.99533 - 0.24230I$ $b = 0.981751 - 0.220824I$	$1.92420 + 6.00380I$	$-5.29609 - 7.13833I$
$u = -0.588746 + 0.173171I$ $a = -1.77796 + 0.22741I$ $b = -0.955476 + 0.155992I$	$-3.12955 + 2.80147I$	$-11.11475 - 6.33047I$
$u = -0.588746 - 0.173171I$ $a = -1.77796 - 0.22741I$ $b = -0.955476 - 0.155992I$	$-3.12955 - 2.80147I$	$-11.11475 + 6.33047I$
$u = -0.174397 + 1.383230I$ $a = 0.400952 + 0.826741I$ $b = 1.125090 - 0.254913I$	$1.83502 + 5.48427I$	0
$u = -0.174397 - 1.383230I$ $a = 0.400952 - 0.826741I$ $b = 1.125090 + 0.254913I$	$1.83502 - 5.48427I$	0
$u = -0.04414 + 1.42255I$ $a = 0.93098 - 2.08220I$ $b = -0.881041 + 0.761522I$	$4.02110 + 2.87995I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.04414 - 1.42255I$ $a = 0.93098 + 2.08220I$ $b = -0.881041 - 0.761522I$	$4.02110 - 2.87995I$	0
$u = -0.03050 + 1.42320I$ $a = -1.17424 - 1.79296I$ $b = 0.836814 + 0.773435I$	$7.88157 + 1.28407I$	0
$u = -0.03050 - 1.42320I$ $a = -1.17424 + 1.79296I$ $b = 0.836814 - 0.773435I$	$7.88157 - 1.28407I$	0
$u = 0.11860 + 1.43036I$ $a = -0.58859 - 2.23064I$ $b = 0.924105 + 0.756075I$	$7.61249 - 7.06523I$	0
$u = 0.11860 - 1.43036I$ $a = -0.58859 + 2.23064I$ $b = 0.924105 - 0.756075I$	$7.61249 + 7.06523I$	0
$u = 0.00024 + 1.44080I$ $a = 0.285840 + 0.736919I$ $b = 1.151750 - 0.388320I$	$8.39629 - 0.63079I$	0
$u = 0.00024 - 1.44080I$ $a = 0.285840 - 0.736919I$ $b = 1.151750 + 0.388320I$	$8.39629 + 0.63079I$	0
$u = 0.05174 + 1.45148I$ $a = -0.018131 + 0.962979I$ $b = -0.056374 - 0.795689I$	$5.80702 - 1.98974I$	0
$u = 0.05174 - 1.45148I$ $a = -0.018131 - 0.962979I$ $b = -0.056374 + 0.795689I$	$5.80702 + 1.98974I$	0
$u = 0.19387 + 1.44583I$ $a = -0.425784 + 0.774845I$ $b = -1.176240 - 0.252011I$	$7.54244 - 8.76456I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.19387 - 1.44583I$ $a = -0.425784 - 0.774845I$ $b = -1.176240 + 0.252011I$	$7.54244 + 8.76456I$	0
$u = 0.513658$ $a = 1.37806$ $b = 0.827741$	-1.34189	-6.91700
$u = -0.507056 + 0.053892I$ $a = -0.002765 + 0.465935I$ $b = -0.517576 + 0.509108I$	$3.24338 - 0.59067I$	$-0.928629 - 0.584065I$
$u = -0.507056 - 0.053892I$ $a = -0.002765 - 0.465935I$ $b = -0.517576 - 0.509108I$	$3.24338 + 0.59067I$	$-0.928629 + 0.584065I$
$u = 0.476219 + 0.168968I$ $a = -1.43519 + 2.10419I$ $b = -0.942034 - 0.603774I$	$2.30977 - 5.10729I$	$-4.12064 + 6.77014I$
$u = 0.476219 - 0.168968I$ $a = -1.43519 - 2.10419I$ $b = -0.942034 + 0.603774I$	$2.30977 + 5.10729I$	$-4.12064 - 6.77014I$
$u = -0.09439 + 1.52168I$ $a = 0.031950 + 0.938149I$ $b = 0.091903 - 0.871946I$	$11.90470 + 5.02795I$	0
$u = -0.09439 - 1.52168I$ $a = 0.031950 - 0.938149I$ $b = 0.091903 + 0.871946I$	$11.90470 - 5.02795I$	0
$u = 0.257516 + 0.387955I$ $a = 0.161469 + 0.323631I$ $b = 0.107563 + 0.368320I$	$-0.128336 - 1.019230I$	$-2.35092 + 6.58230I$
$u = 0.257516 - 0.387955I$ $a = 0.161469 - 0.323631I$ $b = 0.107563 - 0.368320I$	$-0.128336 + 1.019230I$	$-2.35092 - 6.58230I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.25346 + 1.52819I$ $a = -0.03652 - 1.93780I$ $b = 1.007120 + 0.789658I$	$9.78276 - 7.07394I$	0
$u = 0.25346 - 1.52819I$ $a = -0.03652 + 1.93780I$ $b = 1.007120 - 0.789658I$	$9.78276 + 7.07394I$	0
$u = -0.31104 + 1.51921I$ $a = -0.13083 - 1.93728I$ $b = -1.034310 + 0.777789I$	$8.7210 + 11.5709I$	0
$u = -0.31104 - 1.51921I$ $a = -0.13083 + 1.93728I$ $b = -1.034310 - 0.777789I$	$8.7210 - 11.5709I$	0
$u = -0.19543 + 1.54802I$ $a = -0.92101 - 1.11661I$ $b = 0.766788 + 0.884790I$	$10.53440 + 0.86706I$	0
$u = -0.19543 - 1.54802I$ $a = -0.92101 + 1.11661I$ $b = 0.766788 - 0.884790I$	$10.53440 - 0.86706I$	0
$u = 0.26150 + 1.53905I$ $a = 0.933999 - 0.963161I$ $b = -0.726409 + 0.898691I$	$9.68026 - 5.36620I$	0
$u = 0.26150 - 1.53905I$ $a = 0.933999 + 0.963161I$ $b = -0.726409 - 0.898691I$	$9.68026 + 5.36620I$	0
$u = 0.34836 + 1.53663I$ $a = 0.21307 - 1.86398I$ $b = 1.054520 + 0.781483I$	$14.5640 - 15.3956I$	0
$u = 0.34836 - 1.53663I$ $a = 0.21307 + 1.86398I$ $b = 1.054520 - 0.781483I$	$14.5640 + 15.3956I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.30441 + 1.56366I$ $a = -0.868025 - 0.886761I$ $b = 0.709930 + 0.925967I$	$15.6429 + 9.1022I$	0
$u = -0.30441 - 1.56366I$ $a = -0.868025 + 0.886761I$ $b = 0.709930 - 0.925967I$	$15.6429 - 9.1022I$	0
$u = -0.22395 + 1.60407I$ $a = 0.11170 - 1.73571I$ $b = -1.003300 + 0.831540I$	$16.9165 + 4.8171I$	0
$u = -0.22395 - 1.60407I$ $a = 0.11170 + 1.73571I$ $b = -1.003300 - 0.831540I$	$16.9165 - 4.8171I$	0
$u = 0.16076 + 1.62447I$ $a = 0.741747 - 1.164460I$ $b = -0.806249 + 0.918049I$	$17.5372 + 1.6269I$	0
$u = 0.16076 - 1.62447I$ $a = 0.741747 + 1.164460I$ $b = -0.806249 - 0.918049I$	$17.5372 - 1.6269I$	0
$u = -0.178705 + 0.120060I$ $a = 0.93450 + 4.97190I$ $b = 0.890770 - 0.549646I$	$-1.16657 + 2.14399I$	$-10.37179 - 2.91834I$
$u = -0.178705 - 0.120060I$ $a = 0.93450 - 4.97190I$ $b = 0.890770 + 0.549646I$	$-1.16657 - 2.14399I$	$-10.37179 + 2.91834I$
$u = -0.0896155 + 0.0906026I$ $a = -3.68162 + 6.94609I$ $b = -0.858957 + 0.460685I$	$3.02062 - 0.76923I$	$-4.51577 - 0.70346I$
$u = -0.0896155 - 0.0906026I$ $a = -3.68162 - 6.94609I$ $b = -0.858957 - 0.460685I$	$3.02062 + 0.76923I$	$-4.51577 + 0.70346I$

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

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} a \\ a^4u + a^3u + 4a^3 - 5a^2u + 3a^2 - 2au - 2a \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -a^5u - a^4u - 4a^4 + 5a^3u - 3a^3 + 2a^2u + 2a^2 + 1 \\ -a^4 + 4a^3u - a^3 + 3a^2u + 5a^2 - 2au + 2a - 1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -a^5u - a^4u - 5a^4 + 9a^3u - 4a^3 + 5a^2u + 7a^2 - 2au + 2a \\ -a^4 + 4a^3u - a^3 + 3a^2u + 5a^2 - 2au + 2a - 1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} a^3u + 3a^2 - 3au + u - 1 \\ -a + 2u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -a^5 + 5a^4u - a^4 + 4a^3u + 9a^3 - 7a^2u + 5a^2 - 2au - 2a \\ a^4u + a^3u + 4a^3 - 5a^2u + 3a^2 - 2au - 2a + u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u \\ 0 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -a^5u - a^4u - 5a^4 + 9a^3u - 4a^3 + 5a^2u + 7a^2 - 2au + 2a \\ -a^5u - a^4u - 6a^4 + 13a^3u - 5a^3 + 8a^2u + 12a^2 - 4au + 4a - 1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -a^5 + 5a^4u - a^4 + 4a^3u + 10a^3 - 10a^2u + 5a^2 - 2au - 5a + u \\ a^4u + 5a^3 - 9a^2u + au - 7a + 2u + 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

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

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u^2 - u + 1)^6$
c_2, c_7	$(u^4 - u^2 + 1)^3$
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_8	$(u^2 + u + 1)^6$
c_{10}	$(u^3 + u^2 - 1)^4$
c_{12}	$(u^6 + u^4 + 2u^2 + 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8	$(y^2+y+1)^6$
c_2, c_7	$(y^2-y+1)^6$
c_3, c_4, c_9	$(y+1)^{12}$
c_5, c_6, c_{11}	$(y^3-3y^2+2y+1)^4$
c_{10}	$(y^3-y^2+2y-1)^4$
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
$u = 1.000000I$ $a = -1.083790 + 0.612547I$ $b = -0.866025 - 0.500000I$	$4.66906 + 0.79824I$	$1.50976 + 0.48465I$
$u = 1.000000I$ $a = 0.377439 + 0.346257I$ $b = 0.866025 - 0.500000I$	$0.53148 + 2.02988I$	$-5.01951 - 3.46410I$
$u = 1.000000I$ $a = 0.37744 + 1.65374I$ $b = -0.866025 - 0.500000I$	$0.53148 - 2.02988I$	$-5.01951 + 3.46410I$
$u = 1.000000I$ $a = 0.206350 - 0.132315I$ $b = -0.866025 - 0.500000I$	$4.66906 - 4.85801I$	$1.50976 + 6.44355I$
$u = 1.000000I$ $a = -1.08379 + 1.38745I$ $b = 0.866025 - 0.500000I$	$4.66906 - 0.79824I$	$1.50976 - 0.48465I$
$u = 1.000000I$ $a = 0.20635 + 2.13232I$ $b = 0.866025 - 0.500000I$	$4.66906 + 4.85801I$	$1.50976 - 6.44355I$
$u = -1.000000I$ $a = -1.083790 - 0.612547I$ $b = -0.866025 + 0.500000I$	$4.66906 - 0.79824I$	$1.50976 - 0.48465I$
$u = -1.000000I$ $a = 0.377439 - 0.346257I$ $b = 0.866025 + 0.500000I$	$0.53148 - 2.02988I$	$-5.01951 + 3.46410I$
$u = -1.000000I$ $a = 0.37744 - 1.65374I$ $b = -0.866025 + 0.500000I$	$0.53148 + 2.02988I$	$-5.01951 - 3.46410I$
$u = -1.000000I$ $a = 0.206350 + 0.132315I$ $b = -0.866025 + 0.500000I$	$4.66906 + 4.85801I$	$1.50976 - 6.44355I$

Solutions to I_2^u		$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u =$	$-1.000000I$		
$a =$	$-1.08379 - 1.38745I$	$4.66906 + 0.79824I$	$1.50976 + 0.48465I$
$b =$	$0.866025 + 0.500000I$		
$u =$	$-1.000000I$		
$a =$	$0.20635 - 2.13232I$	$4.66906 - 4.85801I$	$1.50976 + 6.44355I$
$b =$	$0.866025 + 0.500000I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^2-u+1)^6)(u^{80}+25u^{79}+\cdots+60u+25)$
c_2, c_7	$((u^4-u^2+1)^3)(u^{80}+u^{79}+\cdots-6u^2+5)$
c_3, c_4, c_9	$((u^2+1)^6)(u^{80}+u^{79}+\cdots-14u+1)$
c_5, c_6, c_{11}	$((u^6-3u^4+2u^2+1)^2)(u^{80}+u^{79}+\cdots-10u+1)$
c_8	$((u^2+u+1)^6)(u^{80}+25u^{79}+\cdots+60u+25)$
c_{10}	$((u^3+u^2-1)^4)(u^{80}-15u^{79}+\cdots-39596u+1033)$
c_{12}	$((u^6+u^4+2u^2+1)^2)(u^{80}-3u^{79}+\cdots+13830u-989)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_8	$((y^2+y+1)^6)(y^{80}+67y^{79}+\cdots-50800y+625)$
c_2, c_7	$((y^2-y+1)^6)(y^{80}-25y^{79}+\cdots-60y+25)$
c_3, c_4, c_9	$((y+1)^{12})(y^{80}+81y^{79}+\cdots-18y+1)$
c_5, c_6, c_{11}	$((y^3-3y^2+2y+1)^4)(y^{80}-75y^{79}+\cdots-38y+1)$
c_{10}	$((y^3-y^2+2y-1)^4)(y^{80}+45y^{79}+\cdots-1.24137\times10^8y+1067089)$
c_{12}	$((y^3+y^2+2y+1)^4)(y^{80}-15y^{79}+\cdots-8.59028\times10^7y+978121)$