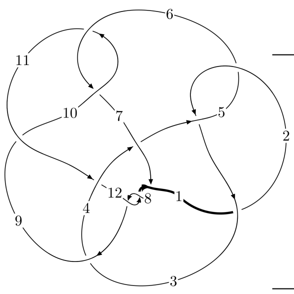
$12a_{0187}$ ($K12a_{0187}$)



A knot diagram[1]

Linearized knot diagam

$$\rightarrow \downarrow \rightarrow \uparrow \rightarrow \uparrow \rightarrow \downarrow \rightarrow \uparrow \rightarrow \uparrow \rightarrow \uparrow \rightarrow \uparrow \rightarrow \downarrow \rightarrow \uparrow \rightarrow \uparrow \rightarrow \uparrow \rightarrow$$

$$3 \quad 5 \quad 9 \quad 7 \quad 2 \quad 10 \quad 1 \quad 12 \quad 11 \quad 6 \quad 4 \quad 8$$

Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & -4.70828 \times 10^{211} u^{102} - 4.30580 \times 10^{211} u^{101} + \cdots + 2.02673 \times 10^{212} b - 2.48946 \times 10^{212}, \\
& 4.27526 \times 10^{212} u^{102} + 1.62447 \times 10^{213} u^{101} + \cdots + 1.82405 \times 10^{213} a - 3.78144 \times 10^{212}, \\
& u^{103} + 2u^{102} + \cdots - 50u - 9 \rangle \\
I_2^u = \langle & b + 1,\ 3a - 3u + 4,\ u^2 - u + 1 \rangle
\end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 105 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. $\boldsymbol{I_1^u = \langle -4.71 \times 10^{211} u^{102} - 4.31 \times 10^{211} u^{101} + \cdots + 2.03 \times 10^{212} b - 2.49 \times 10^{212},\ 4.28 \times 10^{212} u^{102} + 1.62 \times 10^{213} u^{101} + \cdots + 1.82 \times 10^{213} a - 3.78 \times 10^{212},\ u^{103} + 2u^{102} + \cdots - 50u - 9 \rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -0.234382u^{102} - 0.890582u^{101} + \cdots + 27.2644u + 0.207310 \\ 0.232309u^{102} + 0.212451u^{101} + \cdots + 5.06954u + 1.22831 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -0.466692u^{102} - 1.10303u^{101} + \cdots + 22.1949u - 1.02100 \\ 0.232309u^{102} + 0.212451u^{101} + \cdots + 5.06954u + 1.22831 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -0.267327u^{102} - 0.877958u^{101} + \cdots + 39.1849u + 7.35328 \\ 0.374555u^{102} + 0.677940u^{101} + \cdots - 9.16517u - 0.221474 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0.237025u^{102} + 0.234288u^{101} + \cdots + 15.8996u + 3.19729 \\ 0.115727u^{102} + 0.335221u^{101} + \cdots - 7.46104u - 0.621629 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 0.150719u^{102} - 0.268946u^{101} + \cdots + 12.7692u + 8.10850 \\ 0.538052u^{102} + 0.982186u^{101} + \cdots - 20.4638u - 3.33616 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -0.243327u^{102} - 0.831816u^{101} + \cdots + 38.7154u + 9.33905 \\ 0.344667u^{102} + 0.390802u^{101} + \cdots + 1.82827u + 2.29816 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -0.238737u^{102} - 1.06579u^{101} + \cdots + 25.5129u - 2.83305 \\ 0.272415u^{102} + 0.179279u^{101} + \cdots + 8.93923u + 1.31134 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 1.09329u^{102} + 1.70936u^{101} + \cdots - 12.5511u - 1.22773$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{103} + 44u^{102} + \cdots + 1510u - 81$
c_2, c_5	$u^{103} + 2u^{102} + \cdots - 50u - 9$
c_3	$9(9u^{103} - 132u^{102} + \cdots + 8034u - 2563)$
c_4	$9(9u^{103} + 87u^{102} + \cdots - 19058u - 1196)$
c_6, c_{10}	$u^{103} - 3u^{102} + \cdots + 3u - 1$
c_7, c_8, c_{12}	$u^{103} + 3u^{102} + \cdots - 3u - 1$
c_9	$u^{103} + 37u^{102} + \cdots + 13u - 1$
c_{11}	$u^{103} - 5u^{102} + \cdots + 648u - 108$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{103} + 32y^{102} + \cdots + 1346818y - 6561$
c_2, c_5	$y^{103} + 44y^{102} + \cdots + 1510y - 81$
c_3	$81(81y^{103} + 11916y^{102} + \cdots + 1.84130 \times 10^8 y - 6568969)$
c_4	$81(81y^{103} + 11295y^{102} + \cdots + 1.43926 \times 10^8 y - 1430416)$
c_6, c_{10}	$y^{103} + 37y^{102} + \cdots + 13y - 1$
c_7, c_8, c_{12}	$y^{103} + 97y^{102} + \cdots + 13y - 1$
c_9	$y^{103} + 45y^{102} + \cdots - 379y - 1$
c_{11}	$y^{103} + 15y^{102} + \cdots - 153576y - 11664$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.871098 + 0.491257I$ $a = -1.30022 - 0.63958I$ $b = -0.694924 - 1.068860I$	$2.78356 + 8.56668I$	0
$u = -0.871098 - 0.491257I$ $a = -1.30022 + 0.63958I$ $b = -0.694924 + 1.068860I$	$2.78356 - 8.56668I$	0
$u = 0.481345 + 0.878527I$ $a = -8.55020 - 1.64997I$ $b = -0.531227 + 0.886277I$	$-5.02226 + 0.00767I$	0
$u = 0.481345 - 0.878527I$ $a = -8.55020 + 1.64997I$ $b = -0.531227 - 0.886277I$	$-5.02226 - 0.00767I$	0
$u = 0.915500 + 0.391024I$ $a = -1.287160 + 0.339540I$ $b = -0.626849 + 0.812428I$	$3.16321 - 0.76735I$	0
$u = 0.915500 - 0.391024I$ $a = -1.287160 - 0.339540I$ $b = -0.626849 - 0.812428I$	$3.16321 + 0.76735I$	0
$u = 0.111367 + 0.987800I$ $a = -0.314049 - 0.426026I$ $b = -0.557089 + 0.278730I$	$-1.61354 + 2.06379I$	0
$u = 0.111367 - 0.987800I$ $a = -0.314049 + 0.426026I$ $b = -0.557089 - 0.278730I$	$-1.61354 - 2.06379I$	0
$u = 0.590356 + 0.821048I$ $a = 1.35154 - 2.18344I$ $b = 0.555019 - 0.805027I$	$0.597431 + 0.086793I$	0
$u = 0.590356 - 0.821048I$ $a = 1.35154 + 2.18344I$ $b = 0.555019 + 0.805027I$	$0.597431 - 0.086793I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.453314+0.866625I$ $a=\ \ 1.014640+0.981164I$ $b=\ \ 1.155570-0.097756I$	$1.47294-1.87526I$	0
$u=-0.453314-0.866625I$ $a=\ \ 1.014640-0.981164I$ $b=\ \ 1.155570+0.097756I$	$1.47294+1.87526I$	0
$u=\ \ 0.569820+0.848750I$ $a=-0.214973+0.102311I$ $b=\ \ 0.197507+0.130121I$	$0.45171+2.26396I$	0
$u=\ \ 0.569820-0.848750I$ $a=-0.214973-0.102311I$ $b=\ \ 0.197507-0.130121I$	$0.45171-2.26396I$	0
$u=\ \ 0.359432+0.905150I$ $a=-0.75669+1.89295I$ $b=\ \ 0.352860-0.854813I$	$-0.888701+0.166715I$	0
$u=\ \ 0.359432-0.905150I$ $a=-0.75669-1.89295I$ $b=\ \ 0.352860+0.854813I$	$-0.888701-0.166715I$	0
$u=-0.921960+0.458261I$ $a=\ \ 1.47257-0.41314I$ $b=\ \ 0.852313-0.561544I$	$-1.90097+6.60861I$	0
$u=-0.921960-0.458261I$ $a=\ \ 1.47257+0.41314I$ $b=\ \ 0.852313+0.561544I$	$-1.90097-6.60861I$	0
$u=-0.793954+0.554908I$ $a=-1.60966+0.27728I$ $b=-0.864736+0.590779I$	$4.25085+2.77419I$	0
$u=-0.793954-0.554908I$ $a=-1.60966-0.27728I$ $b=-0.864736-0.590779I$	$4.25085-2.77419I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.495018 + 0.831311I$ $a = 2.68722 + 5.91244I$ $b = -0.462208 - 0.898317I$	$-4.88019 + 3.96585I$	0
$u = 0.495018 - 0.831311I$ $a = 2.68722 - 5.91244I$ $b = -0.462208 + 0.898317I$	$-4.88019 - 3.96585I$	0
$u = -0.293989 + 0.900677I$ $a = -0.340712 - 1.361400I$ $b = -0.846553 - 0.778278I$	$-6.38836 + 1.72239I$	0
$u = -0.293989 - 0.900677I$ $a = -0.340712 + 1.361400I$ $b = -0.846553 + 0.778278I$	$-6.38836 - 1.72239I$	0
$u = -0.277077 + 1.032330I$ $a = -1.19938 - 1.04039I$ $b = -0.201061 + 1.183910I$	$-5.76408 - 0.70494I$	0
$u = -0.277077 - 1.032330I$ $a = -1.19938 + 1.04039I$ $b = -0.201061 - 1.183910I$	$-5.76408 + 0.70494I$	0
$u = -0.986142 + 0.425293I$ $a = 1.39902 + 0.48943I$ $b = 0.684015 + 1.076400I$	$-3.46407 + 12.32820I$	0
$u = -0.986142 - 0.425293I$ $a = 1.39902 - 0.48943I$ $b = 0.684015 - 1.076400I$	$-3.46407 - 12.32820I$	0
$u = -0.610418 + 0.687254I$ $a = 1.81549 + 0.03994I$ $b = 0.914625 - 0.659767I$	$3.31217 - 2.28195I$	0
$u = -0.610418 - 0.687254I$ $a = 1.81549 - 0.03994I$ $b = 0.914625 + 0.659767I$	$3.31217 + 2.28195I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.429365 + 0.993415I$ $a = -2.23623 - 0.66942I$ $b = -0.793940 + 1.063610I$	$-7.22938 - 4.55942I$	0
$u = -0.429365 - 0.993415I$ $a = -2.23623 + 0.66942I$ $b = -0.793940 - 1.063610I$	$-7.22938 + 4.55942I$	0
$u = 0.575604 + 0.917006I$ $a = 3.51154 - 0.47561I$ $b = 0.558359 + 0.901843I$	$0.28262 + 4.54488I$	0
$u = 0.575604 - 0.917006I$ $a = 3.51154 + 0.47561I$ $b = 0.558359 - 0.901843I$	$0.28262 - 4.54488I$	0
$u = -0.145915 + 0.904009I$ $a = -0.387490 - 0.748969I$ $b = 0.477410 + 1.112370I$	$-2.20452 + 2.91537I$	0
$u = -0.145915 - 0.904009I$ $a = -0.387490 + 0.748969I$ $b = 0.477410 - 1.112370I$	$-2.20452 - 2.91537I$	0
$u = 0.928998 + 0.565337I$ $a = -1.39788 - 0.40407I$ $b = -0.624297 - 0.867993I$	$2.99328 + 4.14157I$	0
$u = 0.928998 - 0.565337I$ $a = -1.39788 + 0.40407I$ $b = -0.624297 + 0.867993I$	$2.99328 - 4.14157I$	0
$u = -0.439732 + 1.011410I$ $a = -0.0132110 - 0.0165854I$ $b = -0.604253 - 1.208440I$	$-7.11927 - 1.53062I$	0
$u = -0.439732 - 1.011410I$ $a = -0.0132110 + 0.0165854I$ $b = -0.604253 + 1.208440I$	$-7.11927 + 1.53062I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.572592+0.946939I$ $a=\ \ 0.565216+1.182330I$ $b=\ \ 1.032180+0.543713I$	$2.52591-2.40214I$	0
$u=-0.572592-0.946939I$ $a=\ \ 0.565216-1.182330I$ $b=\ \ 1.032180-0.543713I$	$2.52591+2.40214I$	0
$u=\ \ 1.118500+0.085441I$ $a=\ \ 1.174310+0.253168I$ $b=\ \ 0.642035+0.840314I$	$-0.12842+2.50437I$	0
$u=\ \ 1.118500-0.085441I$ $a=\ \ 1.174310-0.253168I$ $b=\ \ 0.642035-0.840314I$	$-0.12842-2.50437I$	0
$u=-0.682041+0.552389I$ $a=\ \ 1.12174+0.93636I$ $b=\ \ 0.720355+1.047180I$	$2.07846+3.71952I$	0
$u=-0.682041-0.552389I$ $a=\ \ 1.12174-0.93636I$ $b=\ \ 0.720355-1.047180I$	$2.07846-3.71952I$	0
$u=\ \ 0.383137+1.058970I$ $a=-0.133273-0.806743I$ $b=-0.182506+0.719748I$	$-1.47585+2.37544I$	0
$u=\ \ 0.383137-1.058970I$ $a=-0.133273+0.806743I$ $b=-0.182506-0.719748I$	$-1.47585-2.37544I$	0
$u=-0.817133+0.283548I$ $a=\ \ 0.370079-0.207901I$ $b=-0.057314-1.154100I$	$-8.29042+5.22148I$	0
$u=-0.817133-0.283548I$ $a=\ \ 0.370079+0.207901I$ $b=-0.057314+1.154100I$	$-8.29042-5.22148I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.550261 + 1.022500I$ $a = -1.149200 - 0.427257I$ $b = -0.982102 + 0.426405I$	$-4.54476 - 7.45140I$	0
$u = -0.550261 - 1.022500I$ $a = -1.149200 + 0.427257I$ $b = -0.982102 - 0.426405I$	$-4.54476 + 7.45140I$	0
$u = -0.497337 + 1.051020I$ $a = 1.096070 + 0.639427I$ $b = 0.103323 - 1.286110I$	$-4.45937 - 5.98055I$	0
$u = -0.497337 - 1.051020I$ $a = 1.096070 - 0.639427I$ $b = 0.103323 + 1.286110I$	$-4.45937 + 5.98055I$	0
$u = 0.655056 + 0.510094I$ $a = 0.360724 - 0.250421I$ $b = -0.384916 - 0.056331I$	$-3.00355 + 1.46606I$	0
$u = 0.655056 - 0.510094I$ $a = 0.360724 + 0.250421I$ $b = -0.384916 + 0.056331I$	$-3.00355 - 1.46606I$	0
$u = 0.632107 + 0.988265I$ $a = 0.418130 - 0.086811I$ $b = -0.264416 - 0.326151I$	$-4.33420 + 3.53568I$	0
$u = 0.632107 - 0.988265I$ $a = 0.418130 + 0.086811I$ $b = -0.264416 + 0.326151I$	$-4.33420 - 3.53568I$	0
$u = -0.602669 + 1.030500I$ $a = 2.12057 + 0.66881I$ $b = 0.727061 - 1.134850I$	$0.65689 - 8.70948I$	0
$u = -0.602669 - 1.030500I$ $a = 2.12057 - 0.66881I$ $b = 0.727061 + 1.134850I$	$0.65689 + 8.70948I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.031145 + 1.207760I$ $a = -0.462840 + 0.926806I$ $b = -0.559631 - 1.051590I$	$-3.52032 + 6.53771I$	0
$u = 0.031145 - 1.207760I$ $a = -0.462840 - 0.926806I$ $b = -0.559631 + 1.051590I$	$-3.52032 - 6.53771I$	0
$u = -0.648711 + 1.052320I$ $a = -0.522042 - 1.067520I$ $b = -0.946139 - 0.528511I$	$2.75148 - 8.20254I$	0
$u = -0.648711 - 1.052320I$ $a = -0.522042 + 1.067520I$ $b = -0.946139 + 0.528511I$	$2.75148 + 8.20254I$	0
$u = 0.384723 + 1.181550I$ $a = 0.535525 + 0.949353I$ $b = 0.040165 - 0.822281I$	$-7.32781 + 3.96721I$	0
$u = 0.384723 - 1.181550I$ $a = 0.535525 - 0.949353I$ $b = 0.040165 + 0.822281I$	$-7.32781 - 3.96721I$	0
$u = -0.580143 + 0.480187I$ $a = -0.84467 - 1.20839I$ $b = -0.809110 - 0.334106I$	$-3.00791 + 2.92106I$	$6.00000 - 4.14158I$
$u = -0.580143 - 0.480187I$ $a = -0.84467 + 1.20839I$ $b = -0.809110 + 0.334106I$	$-3.00791 - 2.92106I$	$6.00000 + 4.14158I$
$u = -0.216993 + 1.245200I$ $a = 0.894698 + 1.036440I$ $b = 0.111870 - 1.129660I$	$-13.24120 + 1.89785I$	0
$u = -0.216993 - 1.245200I$ $a = 0.894698 - 1.036440I$ $b = 0.111870 + 1.129660I$	$-13.24120 - 1.89785I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.742441 + 1.029240I$ $a = -0.484188 + 0.759047I$ $b = -0.579742 + 0.726146I$	$1.60775 + 1.95719I$	0
$u = 0.742441 - 1.029240I$ $a = -0.484188 - 0.759047I$ $b = -0.579742 - 0.726146I$	$1.60775 - 1.95719I$	0
$u = -0.000731 + 1.276870I$ $a = 0.546798 + 0.248636I$ $b = 0.688415 - 0.412207I$	$-8.39396 + 3.98589I$	0
$u = -0.000731 - 1.276870I$ $a = 0.546798 - 0.248636I$ $b = 0.688415 + 0.412207I$	$-8.39396 - 3.98589I$	0
$u = -0.573087 + 1.142630I$ $a = -0.921485 - 0.642704I$ $b = -0.056200 + 1.252430I$	$-10.8112 - 10.3483I$	0
$u = -0.573087 - 1.142630I$ $a = -0.921485 + 0.642704I$ $b = -0.056200 - 1.252430I$	$-10.8112 + 10.3483I$	0
$u = -0.660173 + 1.105650I$ $a = -2.07363 - 0.69473I$ $b = -0.703524 + 1.121920I$	$0.9191 - 14.2325I$	0
$u = -0.660173 - 1.105650I$ $a = -2.07363 + 0.69473I$ $b = -0.703524 - 1.121920I$	$0.9191 + 14.2325I$	0
$u = 1.056470 + 0.736775I$ $a = 1.048320 - 0.512228I$ $b = 0.633156 - 0.779153I$	$-0.82056 + 1.15724I$	0
$u = 1.056470 - 0.736775I$ $a = 1.048320 + 0.512228I$ $b = 0.633156 + 0.779153I$	$-0.82056 - 1.15724I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.665628+1.136790I$ $a=\ 0.483282+1.020280I$ $b=\ 0.916919+0.529397I$	$-3.97588-12.42400I$	0
$u=-0.665628-1.136790I$ $a=\ 0.483282-1.020280I$ $b=\ 0.916919-0.529397I$	$-3.97588+12.42400I$	0
$u=\ 0.690235+1.138730I$ $a=-1.81858+0.59872I$ $b=-0.596895-0.937188I$	$0.95043+6.66404I$	0
$u=\ 0.690235-1.138730I$ $a=-1.81858-0.59872I$ $b=-0.596895+0.937188I$	$0.95043-6.66404I$	0
$u=\ 0.142734+0.640869I$ $a=-1.26726-2.96524I$ $b=-0.385243+0.991777I$	$-5.12697-1.48065I$	$-1.36691+1.15477I$
$u=\ 0.142734-0.640869I$ $a=-1.26726+2.96524I$ $b=-0.385243-0.991777I$	$-5.12697+1.48065I$	$-1.36691-1.15477I$
$u=-0.676032+1.172660I$ $a=\ 2.04749+0.72412I$ $b=\ 0.694637-1.112980I$	$-5.7675-18.3493I$	0
$u=-0.676032-1.172660I$ $a=\ 2.04749-0.72412I$ $b=\ 0.694637+1.112980I$	$-5.7675+18.3493I$	0
$u=\ 1.046010+0.871725I$ $a=\ 1.55072+0.08520I$ $b=\ 0.630633+0.895668I$	$-1.17577+6.10865I$	0
$u=\ 1.046010-0.871725I$ $a=\ 1.55072-0.08520I$ $b=\ 0.630633-0.895668I$	$-1.17577-6.10865I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.046045 + 1.397350I$ $a = 0.620332 - 0.655665I$ $b = 0.595969 + 1.058400I$	$-10.18760 + 8.91972I$	0
$u = -0.046045 - 1.397350I$ $a = 0.620332 + 0.655665I$ $b = 0.595969 - 1.058400I$	$-10.18760 - 8.91972I$	0
$u = -0.553712 + 0.202731I$ $a = -0.528223 + 0.679720I$ $b = 0.082580 + 1.072770I$	$-2.30024 + 1.90304I$	$2.77161 - 4.23290I$
$u = -0.553712 - 0.202731I$ $a = -0.528223 - 0.679720I$ $b = 0.082580 - 1.072770I$	$-2.30024 - 1.90304I$	$2.77161 + 4.23290I$
$u = 0.71297 + 1.23459I$ $a = 0.441416 - 0.393776I$ $b = 0.601821 - 0.671597I$	$-3.40579 + 3.89060I$	0
$u = 0.71297 - 1.23459I$ $a = 0.441416 + 0.393776I$ $b = 0.601821 + 0.671597I$	$-3.40579 - 3.89060I$	0
$u = 0.65165 + 1.33860I$ $a = 1.43997 - 0.64498I$ $b = 0.610272 + 0.961830I$	$-4.27418 + 8.71872I$	0
$u = 0.65165 - 1.33860I$ $a = 1.43997 + 0.64498I$ $b = 0.610272 - 0.961830I$	$-4.27418 - 8.71872I$	0
$u = 0.429540 + 0.149646I$ $a = 0.296500 + 0.074645I$ $b = 0.610223 + 0.842011I$	$0.92491 + 2.40324I$	$3.00262 - 3.56693I$
$u = 0.429540 - 0.149646I$ $a = 0.296500 - 0.074645I$ $b = 0.610223 - 0.842011I$	$0.92491 - 2.40324I$	$3.00262 + 3.56693I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.262708 + 0.122966I$ $a = -4.95031 + 0.65441I$ $b = -0.547714 + 1.002260I$	$-5.18066 - 1.75072I$	$0.73959 + 1.99347I$
$u = -0.262708 - 0.122966I$ $a = -4.95031 - 0.65441I$ $b = -0.547714 - 1.002260I$	$-5.18066 + 1.75072I$	$0.73959 - 1.99347I$
$u = 0.249622$ $a = -1.35178$ $b = 0.346594$	0.758713	13.4350

II. $I_2^u = \langle b+1,\ 3a-3u+4,\ u^2-u+1\rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ u-1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u \\ u-1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u-\frac{4}{3} \\ -1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u-\frac{1}{3} \\ -1 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u+\frac{2}{3} \\ -1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u-\frac{1}{3} \\ -1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} \frac{4}{9}u-\frac{1}{9} \\ \frac{1}{3}u-\frac{1}{3} \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 2u-\frac{5}{3} \\ -2 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u-\frac{4}{3} \\ -1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{116}{9}u + 19$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^2 - u + 1$
c_2	$u^2 + u + 1$
c_3	$9(9u^2 - 3u + 1)$
c_4	$9(9u^2 - 6u + 4)$
c_6, c_7, c_8 c_9	$(u + 1)^2$
c_{10}, c_{12}	$(u - 1)^2$
c_{11}	u^2

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_5	$y^2 + y + 1$
c_3	$81(81y^2 + 9y + 1)$
c_4	$81(81y^2 + 36y + 16)$
c_6, c_7, c_8 c_9, c_{10}, c_{12}	$(y - 1)^2$
c_{11}	y^2

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \quad 0.500000 + 0.866025I$ $a = -0.833333 + 0.866025I$ $b = -1.00000$	$1.64493 + 2.02988I$	$12.5556 - 11.1621I$
$u = \quad 0.500000 - 0.866025I$ $a = -0.833333 - 0.866025I$ $b = -1.00000$	$1.64493 - 2.02988I$	$12.5556 + 11.1621I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^2-u+1)(u^{103}+44u^{102}+\cdots+1510u-81)$
c_2	$(u^2+u+1)(u^{103}+2u^{102}+\cdots-50u-9)$
c_3	$81(9u^2-3u+1)(9u^{103}-132u^{102}+\cdots+8034u-2563)$
c_4	$81(9u^2-6u+4)(9u^{103}+87u^{102}+\cdots-19058u-1196)$
c_5	$(u^2-u+1)(u^{103}+2u^{102}+\cdots-50u-9)$
c_6	$((u+1)^2)(u^{103}-3u^{102}+\cdots+3u-1)$
c_7, c_8	$((u+1)^2)(u^{103}+3u^{102}+\cdots-3u-1)$
c_9	$((u+1)^2)(u^{103}+37u^{102}+\cdots+13u-1)$
c_{10}	$((u-1)^2)(u^{103}-3u^{102}+\cdots+3u-1)$
c_{11}	$u^2(u^{103}-5u^{102}+\cdots+648u-108)$
c_{12}	$((u-1)^2)(u^{103}+3u^{102}+\cdots-3u-1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^2+y+1)(y^{103}+32y^{102}+\cdots+1346818y-6561)$
c_2, c_5	$(y^2+y+1)(y^{103}+44y^{102}+\cdots+1510y-81)$
c_3	$6561(81y^2+9y+1)$ $\cdot(81y^{103}+11916y^{102}+\cdots+184129610y-6568969)$
c_4	$6561(81y^2+36y+16)$ $\cdot(81y^{103}+11295y^{102}+\cdots+143925548y-1430416)$
c_6, c_{10}	$((y-1)^2)(y^{103}+37y^{102}+\cdots+13y-1)$
c_7, c_8, c_{12}	$((y-1)^2)(y^{103}+97y^{102}+\cdots+13y-1)$
c_9	$((y-1)^2)(y^{103}+45y^{102}+\cdots-379y-1)$
c_{11}	$y^2(y^{103}+15y^{102}+\cdots-153576y-11664)$