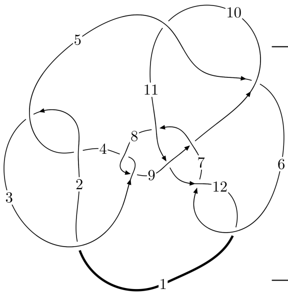
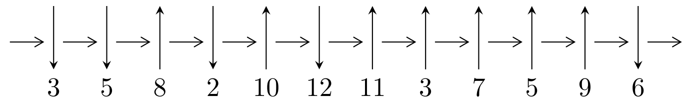
$12n_{0262}$ ($K12n_{0262}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle &-1.84691 \times 10^{298} u^{66} - 1.95567 \times 10^{298} u^{65} + \cdots + 2.05840 \times 10^{302} b + 1.32241 \times 10^{302},\\
&1.98179 \times 10^{298} u^{66} + 3.24951 \times 10^{298} u^{65} + \cdots + 4.11679 \times 10^{302} a - 1.22918 \times 10^{303},\\
&u^{67} + u^{66} + \cdots + 43008u - 25088\rangle\\
I_2^u = \langle &-5673781u^{13} - 878483u^{12} + \cdots + 3057583b + 1514771,\\
&- 2814143u^{13} - 1845304u^{12} + \cdots + 3057583a - 4471166,\\
&u^{14} + 3u^{12} - 3u^{11} - 5u^{10} + 4u^9 - 11u^8 + 8u^7 + 12u^6 + 8u^5 + 20u^4 + 6u^2 - u + 1\rangle
\end{aligned}$$

$$\begin{aligned}
I_1^v = \langle &a,\ -579074v^8 + 1101995v^7 + \cdots + 5353327b + 7952402,\\
&v^9 - v^8 - 8v^7 + v^6 + 33v^5 + 23v^4 - 14v^3 - 2v^2 + 3v - 7\rangle
\end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 90 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. $\boldsymbol{I_1^u = \langle -1.85 \times 10^{298} u^{66} - 1.96 \times 10^{298} u^{65} + \cdots + 2.06 \times 10^{302} b + 1.32 \times 10^{302},\ 1.98 \times 10^{298} u^{66} + 3.25 \times 10^{298} u^{65} + \cdots + 4.12 \times 10^{302} a - 1.23 \times 10^{303},\ u^{67} + u^{66} + \cdots + 43008u - 25088 \rangle}$

(i) Arc colorings

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

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

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

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

$$a_{11} = \begin{pmatrix} -0.0000481392u^{66} - 0.0000789331u^{65} + \cdots + 5.33036u + 2.98578 \\ 0.0000897259u^{66} + 0.0000950094u^{65} + \cdots - 2.62585u - 0.642448 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.000118460u^{66} - 0.000172623u^{65} + \cdots + 7.23750u + 3.89089 \\ 0.0000194055u^{66} + 1.31979 \times 10^{-6}u^{65} + \cdots - 0.718714u + 0.262662 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.000161293u^{66} + 0.000149952u^{65} + \cdots - 9.45357u + 1.04345 \\ 0.0000806828u^{66} + 0.000116961u^{65} + \cdots + 1.08719u - 2.12829 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.000137853u^{66} - 0.000195770u^{65} + \cdots + 3.84559u + 4.00787 \\ 0.0000222838u^{66} + 0.0000208994u^{65} + \cdots + 1.86058u - 0.321979 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.000161217u^{66} + 0.000186979u^{65} + \cdots - 5.83761u - 2.26918 \\ 0.000148461u^{66} + 0.000256361u^{65} + \cdots + 2.53370u - 6.92210 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.0000197759u^{66} - 0.0000240684u^{65} + \cdots + 1.14983u + 0.135437 \\ -3.32757 \times 10^{-6}u^{66} + 1.67327 \times 10^{-7}u^{65} + \cdots + 0.785198u - 0.156001 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.0000164483u^{66} + 0.0000242357u^{65} + \cdots - 0.364631u - 0.291438 \\ -7.60200 \times 10^{-6}u^{66} - 7.07139 \times 10^{-6}u^{65} + \cdots + 0.707461u - 0.351370 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.0000164483u^{66} - 0.0000242357u^{65} + \cdots + 0.364631u + 0.291438 \\ -3.32757 \times 10^{-6}u^{66} + 1.67327 \times 10^{-7}u^{65} + \cdots + 0.785198u - 0.156001 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.000336583u^{66} + 0.000559671u^{65} + \cdots - 0.882700u - 3.59196$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{67} + 78u^{66} + \cdots + 171200u + 2401$
c_2, c_4	$u^{67} - 16u^{66} + \cdots + 120u - 49$
c_3, c_8	$u^{67} + u^{66} + \cdots + 43008u - 25088$
c_5, c_{10}	$u^{67} - 2u^{66} + \cdots + 3200u - 773$
c_6, c_{12}	$u^{67} - 3u^{66} + \cdots + 781u - 209$
c_7	$u^{67} + u^{66} + \cdots + 566773u - 256243$
c_9	$u^{67} + 4u^{66} + \cdots - 2u - 1$
c_{11}	$u^{67} + 12u^{66} + \cdots - 77902u - 10969$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{67} - 162y^{66} + \cdots + 5062883876y - 5764801$
c_2, c_4	$y^{67} - 78y^{66} + \cdots + 171200y - 2401$
c_3, c_8	$y^{67} + 63y^{66} + \cdots - 2491940864y - 629407744$
c_5, c_{10}	$y^{67} + 62y^{66} + \cdots - 18480042y - 597529$
c_6, c_{12}	$y^{67} + 33y^{66} + \cdots - 240251y - 43681$
c_7	$y^{67} + 43y^{66} + \cdots + 161121782381y - 65660475049$
c_9	$y^{67} - 10y^{66} + \cdots - 44y - 1$
c_{11}	$y^{67} + 16y^{66} + \cdots - 1081596550y - 120318961$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.972237 + 0.280854I$ $a = -0.933702 - 0.142151I$ $b = -0.109882 - 0.192634I$	$3.39425 - 2.09087I$	$8.43522 + 3.94985I$
$u = -0.972237 - 0.280854I$ $a = -0.933702 + 0.142151I$ $b = -0.109882 + 0.192634I$	$3.39425 + 2.09087I$	$8.43522 - 3.94985I$
$u = -0.111044 + 1.030770I$ $a = 0.537195 + 0.271868I$ $b = 1.82570 + 1.10431I$	$0.89656 - 5.19617I$	$2.00000 + 8.56770I$
$u = -0.111044 - 1.030770I$ $a = 0.537195 - 0.271868I$ $b = 1.82570 - 1.10431I$	$0.89656 + 5.19617I$	$2.00000 - 8.56770I$
$u = 0.502448 + 0.771343I$ $a = 0.284361 + 0.812390I$ $b = 0.879173 + 0.333242I$	$0.42745 + 2.04731I$	$1.79133 - 2.30943I$
$u = 0.502448 - 0.771343I$ $a = 0.284361 - 0.812390I$ $b = 0.879173 - 0.333242I$	$0.42745 - 2.04731I$	$1.79133 + 2.30943I$
$u = -0.163401 + 0.813880I$ $a = -0.463100 + 0.420844I$ $b = -1.144220 + 0.605865I$	$-1.58473 + 1.12240I$	$-2.95098 - 3.87144I$
$u = -0.163401 - 0.813880I$ $a = -0.463100 - 0.420844I$ $b = -1.144220 - 0.605865I$	$-1.58473 - 1.12240I$	$-2.95098 + 3.87144I$
$u = -0.687972 + 0.429990I$ $a = -0.466340 + 0.203651I$ $b = -0.705353 - 0.489291I$	$-2.34582 + 0.79184I$	$-1.70277 + 1.36728I$
$u = -0.687972 - 0.429990I$ $a = -0.466340 - 0.203651I$ $b = -0.705353 + 0.489291I$	$-2.34582 - 0.79184I$	$-1.70277 - 1.36728I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.423056 + 1.121960I$ $a = -0.340034 + 1.265540I$ $b = -0.758978 + 0.645501I$	$-4.49098 - 4.90499I$	0
$u = -0.423056 - 1.121960I$ $a = -0.340034 - 1.265540I$ $b = -0.758978 - 0.645501I$	$-4.49098 + 4.90499I$	0
$u = -0.683441 + 0.994440I$ $a = -0.700678 + 0.584635I$ $b = -1.65806 - 0.19823I$	$-2.72054 + 1.47592I$	0
$u = -0.683441 - 0.994440I$ $a = -0.700678 - 0.584635I$ $b = -1.65806 + 0.19823I$	$-2.72054 - 1.47592I$	0
$u = 0.412259 + 0.668041I$ $a = -0.952707 + 0.932487I$ $b = -2.33800 + 1.37488I$	$0.01538 + 1.90218I$	$1.03416 - 1.99152I$
$u = 0.412259 - 0.668041I$ $a = -0.952707 - 0.932487I$ $b = -2.33800 - 1.37488I$	$0.01538 - 1.90218I$	$1.03416 + 1.99152I$
$u = -0.734728 + 0.191087I$ $a = -1.088980 - 0.815803I$ $b = -0.029495 + 0.284816I$	$3.56178 + 1.95197I$	$9.44446 - 1.83557I$
$u = -0.734728 - 0.191087I$ $a = -1.088980 + 0.815803I$ $b = -0.029495 - 0.284816I$	$3.56178 - 1.95197I$	$9.44446 + 1.83557I$
$u = 0.705362 + 0.112303I$ $a = 0.447657 - 0.096628I$ $b = -0.57181 - 1.47755I$	$-0.78374 + 3.24647I$	$3.36554 - 8.05825I$
$u = 0.705362 - 0.112303I$ $a = 0.447657 + 0.096628I$ $b = -0.57181 + 1.47755I$	$-0.78374 - 3.24647I$	$3.36554 + 8.05825I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.489130 + 0.496557I$ $a = 0.999235 + 0.996408I$ $b = 1.080650 + 0.076642I$	$0.85096 + 2.02536I$	$5.69785 - 3.31418I$
$u = 0.489130 - 0.496557I$ $a = 0.999235 - 0.996408I$ $b = 1.080650 - 0.076642I$	$0.85096 - 2.02536I$	$5.69785 + 3.31418I$
$u = 0.058657 + 0.664653I$ $a = 0.66387 - 2.11195I$ $b = 1.24815 - 0.75030I$	$0.17719 - 3.22158I$	$-2.38086 + 5.47011I$
$u = 0.058657 - 0.664653I$ $a = 0.66387 + 2.11195I$ $b = 1.24815 + 0.75030I$	$0.17719 + 3.22158I$	$-2.38086 - 5.47011I$
$u = 0.028062 + 0.629541I$ $a = 1.38866 + 0.32024I$ $b = 1.85271 - 1.86384I$	$-3.79798 - 0.21805I$	$-3.18632 - 4.76372I$
$u = 0.028062 - 0.629541I$ $a = 1.38866 - 0.32024I$ $b = 1.85271 + 1.86384I$	$-3.79798 + 0.21805I$	$-3.18632 + 4.76372I$
$u = 0.580709 + 0.074213I$ $a = -1.64498 + 1.24717I$ $b = 0.1199620 + 0.0262995I$	$2.35238 - 6.89299I$	$11.67033 + 2.73841I$
$u = 0.580709 - 0.074213I$ $a = -1.64498 - 1.24717I$ $b = 0.1199620 - 0.0262995I$	$2.35238 + 6.89299I$	$11.67033 - 2.73841I$
$u = -0.568924 + 0.015800I$ $a = 1.15399 - 1.27396I$ $b = -0.137363 - 0.361208I$	$-2.33563 - 2.09946I$	$2.27732 + 3.69468I$
$u = -0.568924 - 0.015800I$ $a = 1.15399 + 1.27396I$ $b = -0.137363 + 0.361208I$	$-2.33563 + 2.09946I$	$2.27732 - 3.69468I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.22902 + 1.42563I$ $a = -1.41393 + 0.24587I$ $b = -1.77271 + 0.17285I$	$-4.88346 - 3.38279I$	0
$u = -0.22902 - 1.42563I$ $a = -1.41393 - 0.24587I$ $b = -1.77271 - 0.17285I$	$-4.88346 + 3.38279I$	0
$u = -0.06118 + 1.47148I$ $a = -1.178520 - 0.232850I$ $b = -1.81942 - 0.53750I$	$-7.03108 - 4.31642I$	0
$u = -0.06118 - 1.47148I$ $a = -1.178520 + 0.232850I$ $b = -1.81942 + 0.53750I$	$-7.03108 + 4.31642I$	0
$u = -0.116938 + 0.471533I$ $a = 1.76704 + 0.77132I$ $b = 0.88022 + 1.53954I$	$0.98108 + 2.41958I$	$3.63595 + 0.97039I$
$u = -0.116938 - 0.471533I$ $a = 1.76704 - 0.77132I$ $b = 0.88022 - 1.53954I$	$0.98108 - 2.41958I$	$3.63595 - 0.97039I$
$u = 1.50349 + 0.34050I$ $a = 0.256622 - 0.478404I$ $b = 0.222034 + 0.138144I$	$2.74618 + 3.31023I$	0
$u = 1.50349 - 0.34050I$ $a = 0.256622 + 0.478404I$ $b = 0.222034 - 0.138144I$	$2.74618 - 3.31023I$	0
$u = 1.55291 + 0.23943I$ $a = -0.163132 - 1.062710I$ $b = 0.084878 - 0.518349I$	$-8.96576 + 1.05371I$	0
$u = 1.55291 - 0.23943I$ $a = -0.163132 + 1.062710I$ $b = 0.084878 + 0.518349I$	$-8.96576 - 1.05371I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.52715 + 1.48204I$ $a = 0.916886 - 0.098363I$ $b = 1.357000 - 0.270061I$	$-6.16260 - 2.01828I$	0
$u = -0.52715 - 1.48204I$ $a = 0.916886 + 0.098363I$ $b = 1.357000 + 0.270061I$	$-6.16260 + 2.01828I$	0
$u = 0.413083$ $a = 1.65958$ $b = 0.141582$	0.931638	11.2120
$u = 0.14745 + 1.66191I$ $a = -0.15458 - 1.63422I$ $b = -0.348487 - 0.802841I$	$-8.02419 + 4.33010I$	0
$u = 0.14745 - 1.66191I$ $a = -0.15458 + 1.63422I$ $b = -0.348487 + 0.802841I$	$-8.02419 - 4.33010I$	0
$u = 0.45724 + 1.63971I$ $a = -0.794772 - 0.109984I$ $b = -1.92407 + 0.56192I$	$-6.70242 + 8.43737I$	0
$u = 0.45724 - 1.63971I$ $a = -0.794772 + 0.109984I$ $b = -1.92407 - 0.56192I$	$-6.70242 - 8.43737I$	0
$u = 0.05684 + 1.70857I$ $a = -0.671485 + 0.613787I$ $b = -1.194770 - 0.506092I$	$-12.22050 + 0.78224I$	0
$u = 0.05684 - 1.70857I$ $a = -0.671485 - 0.613787I$ $b = -1.194770 + 0.506092I$	$-12.22050 - 0.78224I$	0
$u = -0.13255 + 1.73913I$ $a = 0.910845 + 0.114746I$ $b = 1.80242 + 0.30695I$	$-10.39740 - 2.64649I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.13255 - 1.73913I$ $a = 0.910845 - 0.114746I$ $b = 1.80242 - 0.30695I$	$-10.39740 + 2.64649I$	0
$u = 0.41326 + 1.75472I$ $a = 0.961322 - 0.083022I$ $b = 1.83983 - 0.48405I$	$-5.00803 + 10.48120I$	0
$u = 0.41326 - 1.75472I$ $a = 0.961322 + 0.083022I$ $b = 1.83983 + 0.48405I$	$-5.00803 - 10.48120I$	0
$u = 0.65145 + 1.69788I$ $a = 1.342150 - 0.141007I$ $b = 2.08846 - 0.33679I$	$-14.9522 + 8.9665I$	0
$u = 0.65145 - 1.69788I$ $a = 1.342150 + 0.141007I$ $b = 2.08846 + 0.33679I$	$-14.9522 - 8.9665I$	0
$u = 0.92464 + 1.58340I$ $a = -0.930597 + 0.161778I$ $b = -1.45672 + 0.17040I$	$-12.8012 + 7.6595I$	0
$u = 0.92464 - 1.58340I$ $a = -0.930597 - 0.161778I$ $b = -1.45672 - 0.17040I$	$-12.8012 - 7.6595I$	0
$u = -0.91168 + 1.66821I$ $a = -1.132070 - 0.045052I$ $b = -2.09892 - 0.39558I$	$-12.2648 - 16.4135I$	0
$u = -0.91168 - 1.66821I$ $a = -1.132070 + 0.045052I$ $b = -2.09892 + 0.39558I$	$-12.2648 + 16.4135I$	0
$u = 0.07685 + 1.90361I$ $a = -0.784906 + 0.030539I$ $b = -1.58347 - 0.28609I$	$-5.56017 - 2.92233I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \quad 0.07685 - 1.90361I$ $a = -0.784906 - 0.030539I$ $b = -1.58347 + 0.28609I$	$-5.56017 + 2.92233I$	0
$u = -1.91592 + 0.19283I$ $a = \quad 0.014025 + 0.880781I$ $b = -0.347688 + 0.042615I$	$-7.74590 + 6.82406I$	0
$u = -1.91592 - 0.19283I$ $a = \quad 0.014025 - 0.880781I$ $b = -0.347688 - 0.042615I$	$-7.74590 - 6.82406I$	0
$u = -0.29235 + 2.06576I$ $a = \quad 0.585168 + 0.348851I$ $b = \quad 1.75404 - 0.52002I$	$-13.6589 - 4.4760I$	0
$u = -0.29235 - 2.06576I$ $a = \quad 0.585168 - 0.348851I$ $b = \quad 1.75404 + 0.52002I$	$-13.6589 + 4.4760I$	0
$u = -0.73570 + 2.03169I$ $a = \quad 0.755689 + 0.211036I$ $b = \quad 1.67913 + 0.00462I$	$-14.4098 - 3.1017I$	0
$u = -0.73570 - 2.03169I$ $a = \quad 0.755689 - 0.211036I$ $b = \quad 1.67913 - 0.00462I$	$-14.4098 + 3.1017I$	0

II.
$$\boldsymbol{I_2^u = \langle -5.67\times10^{6}u^{13} - 8.78\times10^{5}u^{12} + \cdots + 3.06\times10^{6}b + 1.51\times10^{6},\ -2.81\times10^{6}u^{13} - 1.85\times10^{6}u^{12} + \cdots + 3.06\times10^{6}a - 4.47\times10^{6},\ u^{14} + 3u^{12} + \cdots - u + 1\rangle}$$

(i) Arc colorings

$$a_3 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_8 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_9 = \begin{pmatrix}u\\u\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}0.920382u^{13} + 0.603517u^{12} + \cdots + 2.27554u + 1.46232\\1.85564u^{13} + 0.287313u^{12} + \cdots + 6.16967u - 0.495415\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}0.936012u^{13} + 0.704950u^{12} + \cdots + 1.02408u + 1.77852\\1.87127u^{13} + 0.388745u^{12} + \cdots + 4.91821u - 0.179210\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-0.154016u^{13} + 0.0867479u^{12} + \cdots + 5.44332u - 0.520875\\0.238361u^{13} + 0.739303u^{12} + \cdots + 6.37952u - 0.597333\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}0.920382u^{13} + 0.603517u^{12} + \cdots + 3.27554u + 1.46232\\1.88950u^{13} + 0.545803u^{12} + \cdots + 6.90949u + 0.157140\end{pmatrix}$$
$$a_6 = \begin{pmatrix}1.14706u^{13} - 0.349611u^{12} + \cdots + 4.21100u - 1.35422\\0.619057u^{13} - 0.300574u^{12} + \cdots + 2.87166u - 2.89300\end{pmatrix}$$
$$a_1 = \begin{pmatrix}0.501461u^{13} - 0.0528928u^{12} + \cdots + 0.240764u - 0.0867479\\0.347374u^{13} - 0.00297130u^{12} + \cdots + 0.259964u - 0.721149\end{pmatrix}$$
$$a_5 = \begin{pmatrix}0.154087u^{13} - 0.0499215u^{12} + \cdots - 0.0191998u + 0.634401\\-0.305180u^{13} + 0.0308839u^{12} + \cdots - 0.0559553u + 0.671228\end{pmatrix}$$
$$a_2 = \begin{pmatrix}0.154087u^{13} - 0.0499215u^{12} + \cdots - 0.0191998u + 0.634401\\0.347374u^{13} - 0.00297130u^{12} + \cdots + 0.259964u - 0.721149\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{1775462}{3057583}u^{13} - \frac{19500832}{3057583}u^{12} + \cdots - \frac{38299827}{3057583}u - \frac{57496355}{3057583}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{14} - 14u^{13} + \cdots - 5u + 1$
c_2	$u^{14} + 6u^{13} + \cdots - 3u + 1$
c_3	$u^{14} + 3u^{12} + \cdots - u + 1$
c_4	$u^{14} - 6u^{13} + \cdots + 3u + 1$
c_5	$u^{14} + 7u^{12} + \cdots - 3u + 1$
c_6	$u^{14} + 3u^{13} + \cdots + 7u^2 + 1$
c_7	$u^{14} + 3u^{13} + \cdots + 6u + 1$
c_8	$u^{14} + 3u^{12} + \cdots + u + 1$
c_9	$u^{14} - 6u^{13} + \cdots - 3u + 1$
c_{10}	$u^{14} + 7u^{12} + \cdots + 3u + 1$
c_{11}	$u^{14} + 2u^{12} + \cdots - 5u + 1$
c_{12}	$u^{14} - 3u^{13} + \cdots + 7u^2 + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{14} - 22y^{13} + \cdots + 143y + 1$
c_2, c_4	$y^{14} - 14y^{13} + \cdots - 5y + 1$
c_3, c_8	$y^{14} + 6y^{13} + \cdots + 11y + 1$
c_5, c_{10}	$y^{14} + 14y^{13} + \cdots + 9y + 1$
c_6, c_{12}	$y^{14} + 9y^{13} + \cdots + 14y + 1$
c_7	$y^{14} - 5y^{13} + \cdots - 10y + 1$
c_9	$y^{14} - 10y^{13} + \cdots - 5y + 1$
c_{11}	$y^{14} + 4y^{13} + \cdots + 5y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.139126+0.855284I$ $a=-1.030550+0.347283I$ $b=-1.68681-1.22802I$	$-3.95141+0.77135I$	$-5.32487-5.66602I$
$u=-0.139126-0.855284I$ $a=-1.030550-0.347283I$ $b=-1.68681+1.22802I$	$-3.95141-0.77135I$	$-5.32487+5.66602I$
$u=0.352449+1.175430I$ $a=-0.43811-1.41737I$ $b=-0.881889-0.749482I$	$-4.21220+5.05550I$	$8.55629-11.07069I$
$u=0.352449-1.175430I$ $a=-0.43811+1.41737I$ $b=-0.881889+0.749482I$	$-4.21220-5.05550I$	$8.55629+11.07069I$
$u=-1.229090+0.054546I$ $a=-0.450056-0.118081I$ $b=-0.225534-0.492981I$	$3.33140-3.93339I$	$7.31083+8.00848I$
$u=-1.229090-0.054546I$ $a=-0.450056+0.118081I$ $b=-0.225534+0.492981I$	$3.33140+3.93339I$	$7.31083-8.00848I$
$u=-0.196848+0.556043I$ $a=0.21309-1.99356I$ $b=1.41006-1.09670I$	$1.09831-3.21998I$	$6.98104+7.97611I$
$u=-0.196848-0.556043I$ $a=0.21309+1.99356I$ $b=1.41006+1.09670I$	$1.09831+3.21998I$	$6.98104-7.97611I$
$u=1.40215+0.37579I$ $a=0.293006-0.250018I$ $b=0.483905+0.141934I$	$2.59518+1.77882I$	$-1.86373+1.12551I$
$u=1.40215-0.37579I$ $a=0.293006+0.250018I$ $b=0.483905-0.141934I$	$2.59518-1.77882I$	$-1.86373-1.12551I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.229849 + 0.360057I$ $a = -0.68987 + 2.37094I$ $b = -2.71327 + 2.86427I$	$-0.20979 + 2.65520I$	$-8.5897 - 20.4516I$
$u = 0.229849 - 0.360057I$ $a = -0.68987 - 2.37094I$ $b = -2.71327 - 2.86427I$	$-0.20979 - 2.65520I$	$-8.5897 + 20.4516I$
$u = -0.41939 + 2.04733I$ $a = 0.602488 + 0.353629I$ $b = 1.61354 - 0.34924I$	$-13.45590 - 4.02567I$	$2.43011 - 2.33585I$
$u = -0.41939 - 2.04733I$ $a = 0.602488 - 0.353629I$ $b = 1.61354 + 0.34924I$	$-13.45590 + 4.02567I$	$2.43011 + 2.33585I$

III. $I_1^v = \langle a,\ -5.79\times 10^5 v^8 + 1.10\times 10^6 v^7 + \cdots + 5.35\times 10^6 b + 7.95\times 10^6,\ v^9 - v^8 + \cdots + 3v - 7\rangle$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} v \\ 0 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} v \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ 0.108171v^8 - 0.205852v^7 + \cdots + 0.000774472v - 1.48551 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0.102023v^8 - 0.224509v^7 + \cdots + 1.05024v - 0.683770 \\ 0.108171v^8 - 0.205852v^7 + \cdots + 0.000774472v - 1.48551 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} v \\ 0.109964v^8 - 0.217820v^7 + \cdots + 1.73167v - 1.00939 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -0.159020v^8 + 0.294157v^7 + \cdots - 0.0933167v + 0.754991 \\ -0.0798487v^8 + 0.139548v^7 + \cdots - 0.391226v - 0.126428 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -0.0944713v^8 + 0.166302v^7 + \cdots + 0.644723v + 0.337094 \\ 0.0798487v^8 - 0.139548v^7 + \cdots + 0.391226v + 0.126428 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0.163153v^8 - 0.314762v^7 + \cdots + 0.866612v - 1.49020 \\ -1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -0.163153v^8 + 0.314762v^7 + \cdots - 0.866612v + 1.49020 \\ 1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 0.163153v^8 - 0.314762v^7 + \cdots + 0.866612v - 0.490203 \\ -1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{37039389}{37473289}v^8 - \frac{67980124}{37473289}v^7 - \frac{235056117}{37473289}v^6 + \frac{227362865}{37473289}v^5 + \frac{992262694}{37473289}v^4 + \frac{36681292}{37473289}v^3 - \frac{60669880}{5353327}v^2 + \frac{304560980}{37473289}v - \frac{187191229}{37473289}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2	$(u-1)^9$
c_3, c_8	u^9
c_4	$(u+1)^9$
c_5	$u^9 - u^8 + 2u^7 - u^6 + 3u^5 - u^4 + 2u^3 + u + 1$
c_6	$u^9 - 3u^8 + 8u^7 - 13u^6 + 17u^5 - 17u^4 + 12u^3 - 6u^2 + u + 1$
c_7	$u^9 - u^8 - 2u^7 + 3u^6 + u^5 - 3u^4 + 2u^3 - u + 1$
c_9	$u^9 - 5u^8 + 12u^7 - 15u^6 + 9u^5 + u^4 - 4u^3 + 2u^2 + u - 1$
c_{10}	$u^9 + u^8 + 2u^7 + u^6 + 3u^5 + u^4 + 2u^3 + u - 1$
c_{11}	$u^9 + u^8 - 2u^7 - 3u^6 + u^5 + 3u^4 + 2u^3 - u - 1$
c_{12}	$u^9 + 3u^8 + 8u^7 + 13u^6 + 17u^5 + 17u^4 + 12u^3 + 6u^2 + u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4	$(y-1)^9$
c_3, c_8	y^9
c_5, c_{10}	$y^9+3y^8+8y^7+13y^6+17y^5+17y^4+12y^3+6y^2+y-1$
c_6, c_{12}	$y^9+7y^8+20y^7+25y^6+5y^5-15y^4+22y^2+13y-1$
c_7, c_{11}	$y^9-5y^8+12y^7-15y^6+9y^5+y^4-4y^3+2y^2+y-1$
c_9	$y^9-y^8+12y^7-7y^6+37y^5+y^4-10y^2+5y-1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$v = -1.094310 + 0.114265I$ $a = 0$ $b = -0.650520 - 0.534295I$	$-3.42837 + 2.09337I$	$-6.50768 - 4.08340I$
$v = -1.094310 - 0.114265I$ $a = 0$ $b = -0.650520 + 0.534295I$	$-3.42837 - 2.09337I$	$-6.50768 + 4.08340I$
$v = 0.703774$ $a = 0$ $b = -1.17358$	-0.446489	2.13810
$v = 0.187998 + 0.564097I$ $a = 0$ $b = -1.104930 - 0.619057I$	$-1.02799 + 2.45442I$	$0.87375 - 1.42824I$
$v = 0.187998 - 0.564097I$ $a = 0$ $b = -1.104930 + 0.619057I$	$-1.02799 - 2.45442I$	$0.87375 + 1.42824I$
$v = -1.51733 + 0.93950I$ $a = 0$ $b = 0.443756 + 0.532821I$	$2.72642 + 1.33617I$	$1.72452 + 1.86826I$
$v = -1.51733 - 0.93950I$ $a = 0$ $b = 0.443756 - 0.532821I$	$2.72642 - 1.33617I$	$1.72452 - 1.86826I$
$v = 2.57175 + 0.82630I$ $a = 0$ $b = 0.469909 + 0.043588I$	$1.95319 + 7.08493I$	$-4.46574 - 10.08360I$
$v = 2.57175 - 0.82630I$ $a = 0$ $b = 0.469909 - 0.043588I$	$1.95319 - 7.08493I$	$-4.46574 + 10.08360I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^9)(u^{14}-14u^{13}+\cdots-5u+1)$ $\cdot(u^{67}+78u^{66}+\cdots+171200u+2401)$
c_2	$((u-1)^9)(u^{14}+6u^{13}+\cdots-3u+1)(u^{67}-16u^{66}+\cdots+120u-49)$
c_3	$u^9(u^{14}+3u^{12}+\cdots-u+1)(u^{67}+u^{66}+\cdots+43008u-25088)$
c_4	$((u+1)^9)(u^{14}-6u^{13}+\cdots+3u+1)(u^{67}-16u^{66}+\cdots+120u-49)$
c_5	$(u^9-u^8+\cdots+u+1)(u^{14}+7u^{12}+\cdots-3u+1)$ $\cdot(u^{67}-2u^{66}+\cdots+3200u-773)$
c_6	$(u^9-3u^8+8u^7-13u^6+17u^5-17u^4+12u^3-6u^2+u+1)$ $\cdot(u^{14}+3u^{13}+\cdots+7u^2+1)(u^{67}-3u^{66}+\cdots+781u-209)$
c_7	$(u^9-u^8+\cdots-u+1)(u^{14}+3u^{13}+\cdots+6u+1)$ $\cdot(u^{67}+u^{66}+\cdots+566773u-256243)$
c_8	$u^9(u^{14}+3u^{12}+\cdots+u+1)(u^{67}+u^{66}+\cdots+43008u-25088)$
c_9	$(u^9-5u^8+12u^7-15u^6+9u^5+u^4-4u^3+2u^2+u-1)$ $\cdot(u^{14}-6u^{13}+\cdots-3u+1)(u^{67}+4u^{66}+\cdots-2u-1)$
c_{10}	$(u^9+u^8+\cdots+u-1)(u^{14}+7u^{12}+\cdots+3u+1)$ $\cdot(u^{67}-2u^{66}+\cdots+3200u-773)$
c_{11}	$(u^9+u^8+\cdots-u-1)(u^{14}+2u^{12}+\cdots-5u+1)$ $\cdot(u^{67}+12u^{66}+\cdots-77902u-10969)$
c_{12}	$(u^9+3u^8+8u^7+13u^6+17u^5+17u^4+12u^3+6u^2+u-1)$ $\cdot(u^{14}-3u^{13}+\cdots+7u^2+1)(u^{67}-3u^{66}+\cdots+781u-209)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^9)(y^{14}-22y^{13}+\cdots+143y+1)$ $\cdot\,(y^{67}-162y^{66}+\cdots+5062883876y-5764801)$
c_2, c_4	$((y-1)^9)(y^{14}-14y^{13}+\cdots-5y+1)$ $\cdot\,(y^{67}-78y^{66}+\cdots+171200y-2401)$
c_3, c_8	$y^9(y^{14}+6y^{13}+\cdots+11y+1)$ $\cdot\,(y^{67}+63y^{66}+\cdots-2491940864y-629407744)$
c_5, c_{10}	$(y^9+3y^8+8y^7+13y^6+17y^5+17y^4+12y^3+6y^2+y-1)$ $\cdot\,(y^{14}+14y^{13}+\cdots+9y+1)$ $\cdot\,(y^{67}+62y^{66}+\cdots-18480042y-597529)$
c_6, c_{12}	$(y^9+7y^8+20y^7+25y^6+5y^5-15y^4+22y^2+13y-1)$ $\cdot\,(y^{14}+9y^{13}+\cdots+14y+1)(y^{67}+33y^{66}+\cdots-240251y-43681)$
c_7	$(y^9-5y^8+12y^7-15y^6+9y^5+y^4-4y^3+2y^2+y-1)$ $\cdot\,(y^{14}-5y^{13}+\cdots-10y+1)$ $\cdot\,(y^{67}+43y^{66}+\cdots+161121782381y-65660475049)$
c_9	$(y^9-y^8+12y^7-7y^6+37y^5+y^4-10y^2+5y-1)$ $\cdot\,(y^{14}-10y^{13}+\cdots-5y+1)(y^{67}-10y^{66}+\cdots-44y-1)$
c_{11}	$(y^9-5y^8+12y^7-15y^6+9y^5+y^4-4y^3+2y^2+y-1)$ $\cdot\,(y^{14}+4y^{13}+\cdots+5y+1)$ $\cdot\,(y^{67}+16y^{66}+\cdots-1081596550y-120318961)$