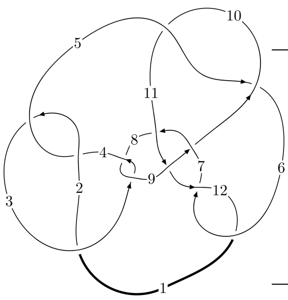
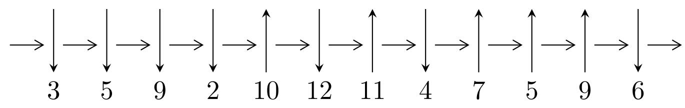
$12n_{0264}$ $(K12n_{0264})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle &3.93403 \times 10^{149}u^{37} - 1.74178 \times 10^{149}u^{36} + \cdots + 2.21546 \times 10^{152}b + 1.76661 \times 10^{154},\\
&7.93734 \times 10^{149}u^{37} - 3.29411 \times 10^{149}u^{36} + \cdots + 4.43092 \times 10^{152}a + 3.55362 \times 10^{154},\\
&u^{38} - u^{37} + \cdots + 86016u - 25088\rangle\\
I_2^u = \langle &8082115793u^{16} + 864266486u^{15} + \cdots + 5782655035b - 29654101499,\\
&682951511u^{16} - 479427583u^{15} + \cdots + 5782655035a - 12663191293,\ u^{17} + 6u^{15} + \cdots - 3u + 1\rangle
\end{aligned}$$

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

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 64 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. $\boldsymbol{I_1^u = \langle 3.93 \times 10^{149} u^{37} - 1.74 \times 10^{149} u^{36} + \cdots + 2.22 \times 10^{152} b + 1.77 \times 10^{154},\ 7.94 \times 10^{149} u^{37} - 3.29 \times 10^{149} u^{36} + \cdots + 4.43 \times 10^{152} a + 3.55 \times 10^{154},\ u^{38} - u^{37} + \cdots + 86016 u - 25088 \rangle}$

(i) Arc colorings

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

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

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

$$a_8 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.00179135u^{37} + 0.000743437u^{36} + \cdots + 147.911u - 80.2006 \\ -0.00177572u^{37} + 0.000786192u^{36} + \cdots + 151.635u - 79.7401 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.00179135u^{37} + 0.000743437u^{36} + \cdots + 147.911u - 80.2006 \\ -0.00247624u^{37} + 0.00101022u^{36} + \cdots + 196.831u - 106.030 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.00108938u^{37} + 0.000479390u^{36} + \cdots + 86.4568u - 38.9386 \\ -0.00129295u^{37} + 0.000455453u^{36} + \cdots + 89.7492u - 44.1198 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.00134130u^{37} + 0.000498496u^{36} + \cdots + 100.346u - 57.3777 \\ -0.00207949u^{37} + 0.000840213u^{36} + \cdots + 166.563u - 92.5692 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.00126938u^{37} + 0.000412248u^{36} + \cdots + 85.1965u - 49.2329 \\ -0.00261068u^{37} + 0.000910744u^{36} + \cdots + 185.542u - 106.611 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.000219442u^{37} + 0.000183073u^{36} + \cdots + 30.0161u - 10.6041 \\ -0.000132258u^{37} + 0.000107784u^{36} + \cdots + 18.7525u - 7.96288 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.0000871841u^{37} - 0.0000752884u^{36} + \cdots - 11.2636u + 2.64124 \\ -0.000143931u^{37} + 0.000121946u^{36} + \cdots + 19.9165u - 7.66444 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.0000871841u^{37} + 0.0000752884u^{36} + \cdots + 11.2636u - 2.64124 \\ -0.000132258u^{37} + 0.000107784u^{36} + \cdots + 18.7525u - 7.96288 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.00823228u^{37} - 0.00319378u^{36} + \cdots - 645.161u + 373.502$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{38}+46u^{36}+\cdots+6958u+2401$
c_2, c_4	$u^{38}-16u^{37}+\cdots+378u-49$
c_3, c_8	$u^{38}-u^{37}+\cdots+86016u-25088$
c_5, c_{10}	$u^{38}-2u^{37}+\cdots-3904u-5873$
c_6, c_{12}	$u^{38}-3u^{37}+\cdots-446u+44$
c_7	$u^{38}+u^{37}+\cdots+40881797u+3617129$
c_9	$u^{38}+4u^{37}+\cdots-114u-17$
c_{11}	$u^{38}+u^{37}+\cdots+79046u-14009$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{38} + 92y^{37} + \cdots + 262856678y + 5764801$
c_2, c_4	$y^{38} + 46y^{36} + \cdots - 6958y + 2401$
c_3, c_8	$y^{38} + 69y^{37} + \cdots + 3750756352y + 629407744$
c_5, c_{10}	$y^{38} - 12y^{37} + \cdots - 781291844y + 34492129$
c_6, c_{12}	$y^{38} + 35y^{37} + \cdots - 111884y + 1936$
c_7	$y^{38} - 107y^{37} + \cdots - 346184004395873y + 13083622202641$
c_9	$y^{38} - 6y^{37} + \cdots - 8270y + 289$
c_{11}	$y^{38} - 69y^{37} + \cdots - 9544952050y + 196252081$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.542649 + 0.614305I$ $a = 0.515994 + 1.233570I$ $b = -0.104502 + 0.163985I$	$1.68943 + 7.69679I$	$-0.16453 - 13.04445I$
$u = -0.542649 - 0.614305I$ $a = 0.515994 - 1.233570I$ $b = -0.104502 - 0.163985I$	$1.68943 - 7.69679I$	$-0.16453 + 13.04445I$
$u = 0.072090 + 0.744709I$ $a = 0.81163 - 1.20274I$ $b = 0.230747 + 0.056669I$	$3.31755 + 0.54950I$	$6.15791 + 2.31967I$
$u = 0.072090 - 0.744709I$ $a = 0.81163 + 1.20274I$ $b = 0.230747 - 0.056669I$	$3.31755 - 0.54950I$	$6.15791 - 2.31967I$
$u = -0.554003 + 0.499646I$ $a = 0.259417 + 1.163440I$ $b = 0.126830 + 0.775649I$	$-1.38624 + 1.33481I$	$-2.97345 - 3.66862I$
$u = -0.554003 - 0.499646I$ $a = 0.259417 - 1.163440I$ $b = 0.126830 - 0.775649I$	$-1.38624 - 1.33481I$	$-2.97345 + 3.66862I$
$u = 0.434969 + 0.601443I$ $a = 1.185780 - 0.546611I$ $b = 0.144861 + 0.163719I$	$1.48961 + 0.57943I$	$5.02569 - 0.39325I$
$u = 0.434969 - 0.601443I$ $a = 1.185780 + 0.546611I$ $b = 0.144861 - 0.163719I$	$1.48961 - 0.57943I$	$5.02569 + 0.39325I$
$u = 0.606671 + 0.412287I$ $a = -1.202140 + 0.417819I$ $b = -1.72769 - 0.34007I$	$-4.47346 + 0.84284I$	$-11.66035 - 0.97344I$
$u = 0.606671 - 0.412287I$ $a = -1.202140 - 0.417819I$ $b = -1.72769 + 0.34007I$	$-4.47346 - 0.84284I$	$-11.66035 + 0.97344I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.185752 + 1.318190I$ $a = 0.519872 + 0.356267I$ $b = -0.524833 + 0.069232I$	$-2.12322 - 4.24125I$	$-4.26882 + 3.51292I$
$u = 0.185752 - 1.318190I$ $a = 0.519872 - 0.356267I$ $b = -0.524833 - 0.069232I$	$-2.12322 + 4.24125I$	$-4.26882 - 3.51292I$
$u = 0.626028 + 0.000453I$ $a = 0.99835 + 1.48871I$ $b = 1.84598 + 1.42085I$	$0.61462 + 3.26287I$	$-1.84851 - 7.14359I$
$u = 0.626028 - 0.000453I$ $a = 0.99835 - 1.48871I$ $b = 1.84598 - 1.42085I$	$0.61462 - 3.26287I$	$-1.84851 + 7.14359I$
$u = 0.220678 + 0.522522I$ $a = -0.299614 - 0.840555I$ $b = -2.25916 - 0.15809I$	$-0.41969 - 2.46857I$	$5.02234 + 6.21524I$
$u = 0.220678 - 0.522522I$ $a = -0.299614 + 0.840555I$ $b = -2.25916 + 0.15809I$	$-0.41969 + 2.46857I$	$5.02234 - 6.21524I$
$u = 0.134435 + 0.540176I$ $a = 1.65614 + 0.96243I$ $b = 0.467042 + 0.770777I$	$0.34862 + 2.64648I$	$0.38453 - 4.62015I$
$u = 0.134435 - 0.540176I$ $a = 1.65614 - 0.96243I$ $b = 0.467042 - 0.770777I$	$0.34862 - 2.64648I$	$0.38453 + 4.62015I$
$u = -0.487313$ $a = -0.299932$ $b = -0.879403$	-1.21395	-9.56810
$u = -1.68632 + 0.08026I$ $a = 0.014317 + 0.422528I$ $b = -0.16420 + 1.88746I$	$1.94242 + 0.25898I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.68632 - 0.08026I$ $a = 0.014317 - 0.422528I$ $b = -0.16420 - 1.88746I$	$1.94242 - 0.25898I$	0
$u = 1.86202$ $a = -0.669370$ $b = 1.04021$	-6.81012	0
$u = -0.78573 + 1.74324I$ $a = -1.105090 - 0.592834I$ $b = -0.214357 - 0.763758I$	$6.33444 - 4.25779I$	0
$u = -0.78573 - 1.74324I$ $a = -1.105090 + 0.592834I$ $b = -0.214357 + 0.763758I$	$6.33444 + 4.25779I$	0
$u = 0.36940 + 1.96319I$ $a = -0.015181 - 1.352630I$ $b = 0.05084 - 2.20969I$	$10.56750 - 4.02468I$	0
$u = 0.36940 - 1.96319I$ $a = -0.015181 + 1.352630I$ $b = 0.05084 + 2.20969I$	$10.56750 + 4.02468I$	0
$u = 1.13922 + 2.02195I$ $a = -0.145900 + 0.974160I$ $b = -0.03782 + 2.28437I$	$17.0081 - 15.1515I$	0
$u = 1.13922 - 2.02195I$ $a = -0.145900 - 0.974160I$ $b = -0.03782 - 2.28437I$	$17.0081 + 15.1515I$	0
$u = -1.07898 + 2.08221I$ $a = -0.003796 - 0.816704I$ $b = -0.37487 - 1.96325I$	$16.6139 + 6.3485I$	0
$u = -1.07898 - 2.08221I$ $a = -0.003796 + 0.816704I$ $b = -0.37487 + 1.96325I$	$16.6139 - 6.3485I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.95530 + 1.96183I$ $a = -0.665322 + 0.086310I$ $b = 0.704808 + 0.014037I$	$8.32107 - 2.64989I$	0
$u = 1.95530 - 1.96183I$ $a = -0.665322 - 0.086310I$ $b = 0.704808 - 0.014037I$	$8.32107 + 2.64989I$	0
$u = -0.18789 + 2.88116I$ $a = -0.176028 - 0.917819I$ $b = 0.20196 - 2.09465I$	$18.1843 + 3.4592I$	0
$u = -0.18789 - 2.88116I$ $a = -0.176028 + 0.917819I$ $b = 0.20196 + 2.09465I$	$18.1843 - 3.4592I$	0
$u = -0.89301 + 2.76858I$ $a = 0.023279 + 0.734216I$ $b = 0.04287 + 2.25868I$	$12.09730 + 5.36685I$	0
$u = -0.89301 - 2.76858I$ $a = 0.023279 - 0.734216I$ $b = 0.04287 - 2.25868I$	$12.09730 - 5.36685I$	0
$u = -0.20333 + 3.10034I$ $a = 0.041511 + 0.844710I$ $b = -0.13176 + 2.19457I$	$19.1617 + 5.3151I$	0
$u = -0.20333 - 3.10034I$ $a = 0.041511 - 0.844710I$ $b = -0.13176 - 2.19457I$	$19.1617 - 5.3151I$	0

II.

$\boldsymbol{I_2^u = \langle 8.08 \times 10^9 u^{16} + 8.64 \times 10^8 u^{15} + \cdots + 5.78 \times 10^9 b - 2.97 \times 10^{10},\ 6.83 \times 10^8 u^{16} - 4.79 \times 10^8 u^{15} + \cdots + 5.78 \times 10^9 a - 1.27 \times 10^{10},\ u^{17} + 6u^{15} + \cdots - 3u + 1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -0.118103u^{16} + 0.0829079u^{15} + \cdots - 0.587774u + 2.18986 \\ -1.39765u^{16} - 0.149458u^{15} + \cdots - 5.69145u + 5.12811 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -0.118103u^{16} + 0.0829079u^{15} + \cdots - 0.587774u + 2.18986 \\ -1.29814u^{16} - 0.108155u^{15} + \cdots - 5.32462u + 5.04520 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -0.446141u^{16} + 0.123421u^{15} + \cdots - 0.579812u + 2.45214 \\ -1.49333u^{16} - 0.286083u^{15} + \cdots - 6.76385u + 4.74588 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0.165246u^{16} + 0.188150u^{15} + \cdots + 0.228629u + 2.06644 \\ -0.948386u^{16} + 0.0348973u^{15} + \cdots - 3.47584u + 4.81654 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 0.833403u^{16} + 0.355787u^{15} + \cdots + 4.52387u - 0.486115 \\ 0.998649u^{16} + 0.543937u^{15} + \cdots + 4.75250u + 1.58032 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0.0889186u^{16} - 0.141079u^{15} + \cdots + 0.611062u - 0.716020 \\ 0.114263u^{16} - 0.0409080u^{15} + \cdots + 0.312606u - 1.08969 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -0.0253442u^{16} - 0.100171u^{15} + \cdots + 0.298457u + 0.373667 \\ -0.118103u^{16} + 0.0829079u^{15} + \cdots - 0.587774u + 1.18986 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -0.0253442u^{16} - 0.100171u^{15} + \cdots + 0.298457u + 0.373667 \\ 0.114263u^{16} - 0.0409080u^{15} + \cdots + 0.312606u - 1.08969 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{45091796106}{5782655035}u^{16} + \frac{12435236787}{5782655035}u^{15} + \cdots + \frac{43331514147}{1156531007}u - \frac{96632179643}{5782655035}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{17} - 8u^{16} + \cdots + 3u - 1$
c_2	$u^{17} + 6u^{16} + \cdots + u + 1$
c_3	$u^{17} + 6u^{15} + \cdots - 3u + 1$
c_4	$u^{17} - 6u^{16} + \cdots + u - 1$
c_5	$u^{17} + 6u^{15} + \cdots + 3u - 1$
c_6	$u^{17} + 3u^{16} + \cdots + 6u^2 + 1$
c_7	$u^{17} + 3u^{16} + \cdots + 6u + 1$
c_8	$u^{17} + 6u^{15} + \cdots - 3u - 1$
c_9	$u^{17} - 6u^{16} + \cdots + 3u - 1$
c_{10}	$u^{17} + 6u^{15} + \cdots + 3u + 1$
c_{11}	$u^{17} - 5u^{16} + \cdots + 5u - 1$
c_{12}	$u^{17} - 3u^{16} + \cdots - 6u^2 - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{17} + 8y^{16} + \cdots - 25y - 1$
c_2, c_4	$y^{17} - 8y^{16} + \cdots + 3y - 1$
c_3, c_8	$y^{17} + 12y^{16} + \cdots + 3y - 1$
c_5, c_{10}	$y^{17} + 12y^{16} + \cdots - 3y - 1$
c_6, c_{12}	$y^{17} + 3y^{16} + \cdots - 12y - 1$
c_7	$y^{17} - 19y^{16} + \cdots - 2y - 1$
c_9	$y^{17} + 2y^{16} + \cdots + 19y - 1$
c_{11}	$y^{17} - 17y^{16} + \cdots + 7y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.123817 + 0.916477I$ $a = 0.468487 - 0.527233I$ $b = 0.848975 + 0.187757I$	$2.61790 + 2.40485I$	$3.33881 - 2.22795I$
$u = -0.123817 - 0.916477I$ $a = 0.468487 + 0.527233I$ $b = 0.848975 - 0.187757I$	$2.61790 - 2.40485I$	$3.33881 + 2.22795I$
$u = 0.519605 + 0.973810I$ $a = -0.045901 - 0.497479I$ $b = -0.642933 - 0.280867I$	$1.04490 - 6.61108I$	$-1.52634 + 5.44334I$
$u = 0.519605 - 0.973810I$ $a = -0.045901 + 0.497479I$ $b = -0.642933 + 0.280867I$	$1.04490 + 6.61108I$	$-1.52634 - 5.44334I$
$u = 0.718697 + 0.273065I$ $a = 1.301770 + 0.430364I$ $b = -0.061570 + 1.362440I$	$1.14952 + 2.21103I$	$2.23770 - 3.38646I$
$u = 0.718697 - 0.273065I$ $a = 1.301770 - 0.430364I$ $b = -0.061570 - 1.362440I$	$1.14952 - 2.21103I$	$2.23770 + 3.38646I$
$u = -0.535223 + 1.162140I$ $a = -0.064866 + 0.614609I$ $b = 0.405304 + 0.608509I$	$-1.12324 + 5.07181I$	$-0.31929 - 6.91281I$
$u = -0.535223 - 1.162140I$ $a = -0.064866 - 0.614609I$ $b = 0.405304 - 0.608509I$	$-1.12324 - 5.07181I$	$-0.31929 + 6.91281I$
$u = 0.259361 + 1.266310I$ $a = 0.449036 + 0.835046I$ $b = -0.176709 + 1.029420I$	$0.516364 + 0.300871I$	$0.207427 - 0.470649I$
$u = 0.259361 - 1.266310I$ $a = 0.449036 - 0.835046I$ $b = -0.176709 - 1.029420I$	$0.516364 - 0.300871I$	$0.207427 + 0.470649I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.642620 + 0.176331I$ $a = 1.82999 + 0.22284I$ $b = 2.02895 - 0.99762I$	$-3.99885 - 0.50220I$	$-2.39894 - 6.28246I$
$u = -0.642620 - 0.176331I$ $a = 1.82999 - 0.22284I$ $b = 2.02895 + 0.99762I$	$-3.99885 + 0.50220I$	$-2.39894 + 6.28246I$
$u = 0.314004 + 0.270023I$ $a = 1.99812 - 0.08558I$ $b = 3.08746 - 2.37905I$	$-0.26934 + 3.00568I$	$-3.5088 + 14.7647I$
$u = 0.314004 - 0.270023I$ $a = 1.99812 + 0.08558I$ $b = 3.08746 + 2.37905I$	$-0.26934 - 3.00568I$	$-3.5088 - 14.7647I$
$u = -1.73212$ $a = -0.671734$ $b = 0.989401$	-6.94010	-36.0810
$u = 0.35606 + 2.09120I$ $a = -0.100766 - 1.164660I$ $b = 0.01582 - 2.10159I$	$10.11250 - 4.21829I$	$-4.98986 + 4.99941I$
$u = 0.35606 - 2.09120I$ $a = -0.100766 + 1.164660I$ $b = 0.01582 + 2.10159I$	$10.11250 + 4.21829I$	$-4.98986 - 4.99941I$

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

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{41627955}{37473289}v^8 - \frac{61862036}{37473289}v^7 - \frac{282471299}{37473289}v^6 + \frac{146298199}{37473289}v^5 + \frac{1154392026}{37473289}v^4 + \frac{495537892}{37473289}v^3 - \frac{23961352}{5353327}v^2 + \frac{145490692}{37473289}v - \frac{344731995}{37473289}$

(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
$v = -1.094310 + 0.114265I$ $a = 0$ $b = -0.650520 - 0.534295I$	$-3.42837 + 2.09337I$	$-6.52230 - 4.24226I$
$v = -1.094310 - 0.114265I$ $a = 0$ $b = -0.650520 + 0.534295I$	$-3.42837 - 2.09337I$	$-6.52230 + 4.24226I$
$v = 0.703774$ $a = 0$ $b = -1.17358$	-0.446489	3.16660
$v = 0.187998 + 0.564097I$ $a = 0$ $b = -1.104930 - 0.619057I$	$-1.02799 + 2.45442I$	$-8.21790 - 4.39771I$
$v = 0.187998 - 0.564097I$ $a = 0$ $b = -1.104930 + 0.619057I$	$-1.02799 - 2.45442I$	$-8.21790 + 4.39771I$
$v = -1.51733 + 0.93950I$ $a = 0$ $b = 0.443756 + 0.532821I$	$2.72642 + 1.33617I$	$0.84367 - 3.27176I$
$v = -1.51733 - 0.93950I$ $a = 0$ $b = 0.443756 - 0.532821I$	$2.72642 - 1.33617I$	$0.84367 + 3.27176I$
$v = 2.57175 + 0.82630I$ $a = 0$ $b = 0.469909 + 0.043588I$	$1.95319 + 7.08493I$	$3.61934 - 1.74309I$
$v = 2.57175 - 0.82630I$ $a = 0$ $b = 0.469909 - 0.043588I$	$1.95319 - 7.08493I$	$3.61934 + 1.74309I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^9)(u^{17}-8u^{16}+\cdots+3u-1)(u^{38}+46u^{36}+\cdots+6958u+2401)$
c_2	$((u-1)^9)(u^{17}+6u^{16}+\cdots+u+1)(u^{38}-16u^{37}+\cdots+378u-49)$
c_3	$u^9(u^{17}+6u^{15}+\cdots-3u+1)(u^{38}-u^{37}+\cdots+86016u-25088)$
c_4	$((u+1)^9)(u^{17}-6u^{16}+\cdots+u-1)(u^{38}-16u^{37}+\cdots+378u-49)$
c_5	$(u^9-u^8+\cdots+u+1)(u^{17}+6u^{15}+\cdots+3u-1)$ $\cdot(u^{38}-2u^{37}+\cdots-3904u-5873)$
c_6	$(u^9-3u^8+8u^7-13u^6+17u^5-17u^4+12u^3-6u^2+u+1)$ $\cdot(u^{17}+3u^{16}+\cdots+6u^2+1)(u^{38}-3u^{37}+\cdots-446u+44)$
c_7	$(u^9-u^8+\cdots-u+1)(u^{17}+3u^{16}+\cdots+6u+1)$ $\cdot(u^{38}+u^{37}+\cdots+40881797u+3617129)$
c_8	$u^9(u^{17}+6u^{15}+\cdots-3u-1)(u^{38}-u^{37}+\cdots+86016u-25088)$
c_9	$(u^9-5u^8+12u^7-15u^6+9u^5+u^4-4u^3+2u^2+u-1)$ $\cdot(u^{17}-6u^{16}+\cdots+3u-1)(u^{38}+4u^{37}+\cdots-114u-17)$
c_{10}	$(u^9+u^8+\cdots+u-1)(u^{17}+6u^{15}+\cdots+3u+1)$ $\cdot(u^{38}-2u^{37}+\cdots-3904u-5873)$
c_{11}	$(u^9+u^8+\cdots-u-1)(u^{17}-5u^{16}+\cdots+5u-1)$ $\cdot(u^{38}+u^{37}+\cdots+79046u-14009)$
c_{12}	$(u^9+3u^8+8u^7+13u^6+17u^5+17u^4+12u^3+6u^2+u-1)$ $\cdot(u^{17}-3u^{16}+\cdots-6u^2-1)(u^{38}-3u^{37}+\cdots-446u+44)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^9)(y^{17}+8y^{16}+\cdots-25y-1)$ $\cdot(y^{38}+92y^{37}+\cdots+262856678y+5764801)$
c_2, c_4	$((y-1)^9)(y^{17}-8y^{16}+\cdots+3y-1)(y^{38}+46y^{36}+\cdots-6958y+2401)$
c_3, c_8	$y^9(y^{17}+12y^{16}+\cdots+3y-1)$ $\cdot(y^{38}+69y^{37}+\cdots+3750756352y+629407744)$
c_5, c_{10}	$(y^9+3y^8+8y^7+13y^6+17y^5+17y^4+12y^3+6y^2+y-1)$ $\cdot(y^{17}+12y^{16}+\cdots-3y-1)$ $\cdot(y^{38}-12y^{37}+\cdots-781291844y+34492129)$
c_6, c_{12}	$(y^9+7y^8+20y^7+25y^6+5y^5-15y^4+22y^2+13y-1)$ $\cdot(y^{17}+3y^{16}+\cdots-12y-1)(y^{38}+35y^{37}+\cdots-111884y+1936)$
c_7	$(y^9-5y^8+12y^7-15y^6+9y^5+y^4-4y^3+2y^2+y-1)$ $\cdot(y^{17}-19y^{16}+\cdots-2y-1)$ $\cdot(y^{38}-107y^{37}+\cdots-346184004395873y+13083622202641)$
c_9	$(y^9-y^8+12y^7-7y^6+37y^5+y^4-10y^2+5y-1)$ $\cdot(y^{17}+2y^{16}+\cdots+19y-1)(y^{38}-6y^{37}+\cdots-8270y+289)$
c_{11}	$(y^9-5y^8+12y^7-15y^6+9y^5+y^4-4y^3+2y^2+y-1)$ $\cdot(y^{17}-17y^{16}+\cdots+7y-1)$ $\cdot(y^{38}-69y^{37}+\cdots-9544952050y+196252081)$