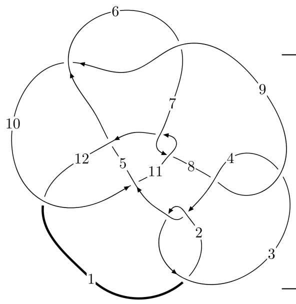
$12n_{0256}$ ($K12n_{0256}$)



A knot diagram[1]

Linearized knot diagam

$$\begin{array}{cccccccccccc} \downarrow & \downarrow & \downarrow & \downarrow & \uparrow & \downarrow & \uparrow & \downarrow & \downarrow & \uparrow & \uparrow & \uparrow \\ 3 & 5 & 9 & 2 & 12 & 9 & 11 & 4 & 6 & 5 & 7 & 10 \end{array}$$

Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -1.09302 \times 10^{148} u^{37} + 5.18676 \times 10^{147} u^{36} + \cdots + 1.58247 \times 10^{151} b - 4.86012 \times 10^{152}, \\ & 2.92144 \times 10^{150} u^{37} - 1.72552 \times 10^{150} u^{36} + \cdots + 1.55082 \times 10^{153} a + 1.44230 \times 10^{155}, \\ & u^{38} - u^{37} + \cdots + 86016u - 25088 \rangle \\ I_2^u = \langle & -2796800274u^{16} + 1230170348u^{15} + \cdots + 5782655035b + 1488757467, \\ & 8417711u^{16} + 1589468u^{15} + \cdots + 2844395a - 43377763,\ u^{17} + 6u^{15} + \cdots - 3u - 1 \rangle \end{aligned}$$

$$\begin{aligned} I_1^v = \langle & a,\ 82026v^8 - 2033115v^7 + \cdots + 764761b - 1552510, \\ & 7v^9 - 3v^8 + 2v^7 + 14v^6 - 23v^5 - 33v^4 - v^3 + 8v^2 + v - 1 \rangle \end{aligned}$$

* 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. $\boldsymbol{I_1^u = \langle -1.09 \times 10^{148} u^{37} + 5.19 \times 10^{147} u^{36} + \cdots + 1.58 \times 10^{151} b - 4.86 \times 10^{152},\ 2.92 \times 10^{150} u^{37} - 1.73 \times 10^{150} u^{36} + \cdots + 1.55 \times 10^{153} a + 1.44 \times 10^{155},\ u^{38} - u^{37} + \cdots + 86016u - 25088 \rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.00188380u^{37} + 0.00111265u^{36} + \cdots + 197.770u - 93.0023 \\ 0.000690707u^{37} - 0.000327764u^{36} + \cdots - 62.7881u + 30.7122 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.000436226u^{37} + 0.0000991808u^{36} + \cdots - 6.16448u + 31.7162 \\ -0.000741300u^{37} + 0.000253145u^{36} + \cdots + 56.6644u - 36.9869 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.00175578u^{37} + 0.000884992u^{36} + \cdots + 151.445u - 59.3558 \\ 0.00132438u^{37} - 0.000436480u^{36} + \cdots - 91.0821u + 52.7513 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.000858868u^{37} + 0.000550093u^{36} + \cdots + 85.6095u - 18.7030 \\ -0.00126665u^{37} + 0.000467679u^{36} + \cdots + 96.7862u - 58.1657 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.000317398u^{37} + 0.000185140u^{36} + \cdots + 29.3852u - 8.54883 \\ -0.0000363695u^{37} + 0.0000373746u^{36} + \cdots + 8.27143u - 5.50537 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.000305502u^{37} - 0.000161572u^{36} + \cdots - 24.5272u + 6.36156 \\ 0.0000100886u^{37} + 3.10588 \times 10^{-7}u^{36} + \cdots + 0.142083u + 1.42366 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.000281029u^{37} - 0.000147765u^{36} + \cdots - 21.1138u + 3.04347 \\ -0.0000370696u^{37} + 0.0000142949u^{36} + \cdots + 3.85910u - 2.16206 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.00191915u^{37} + 0.00125145u^{36} + \cdots + 217.235u - 96.5925 \\ 0.000789868u^{37} - 0.000393658u^{36} + \cdots - 72.9083u + 33.0324 \end{pmatrix}$$

(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	$u^{38} + 4u^{37} + \cdots - 114u - 17$
c_6, c_9	$u^{38} - 3u^{37} + \cdots - 446u + 44$
c_7, c_{11}	$u^{38} - 2u^{37} + \cdots - 3904u - 5873$
c_{10}	$u^{38} + u^{37} + \cdots + 40881797u + 3617129$
c_{12}	$u^{38} + u^{37} + \cdots + 79046u - 14009$

(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	$y^{38} - 6y^{37} + \cdots - 8270y + 289$
c_6, c_9	$y^{38} + 35y^{37} + \cdots - 111884y + 1936$
c_7, c_{11}	$y^{38} - 12y^{37} + \cdots - 781291844y + 34492129$
c_{10}	$y^{38} - 107y^{37} + \cdots - 346184004395873y + 13083622202641$
c_{12}	$y^{38} - 69y^{37} + \cdots - 9544952050y + 196252081$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.542649 + 0.614305I$ $a = -0.125480 + 0.480523I$ $b = 0.653832 + 0.819508I$	$1.68943 + 7.69679I$	$-0.16453 - 13.04445I$
$u = -0.542649 - 0.614305I$ $a = -0.125480 - 0.480523I$ $b = 0.653832 - 0.819508I$	$1.68943 - 7.69679I$	$-0.16453 + 13.04445I$
$u = 0.072090 + 0.744709I$ $a = 0.128090 - 1.010850I$ $b = 0.532310 - 0.601577I$	$3.31755 + 0.54950I$	$6.15791 + 2.31967I$
$u = 0.072090 - 0.744709I$ $a = 0.128090 + 1.010850I$ $b = 0.532310 + 0.601577I$	$3.31755 - 0.54950I$	$6.15791 - 2.31967I$
$u = -0.554003 + 0.499646I$ $a = 0.564998 + 0.241017I$ $b = 0.158389 - 0.923477I$	$-1.38624 + 1.33481I$	$-2.97345 - 3.66862I$
$u = -0.554003 - 0.499646I$ $a = 0.564998 - 0.241017I$ $b = 0.158389 + 0.923477I$	$-1.38624 - 1.33481I$	$-2.97345 + 3.66862I$
$u = 0.434969 + 0.601443I$ $a = 0.958601 - 0.178438I$ $b = -0.481321 - 0.092957I$	$1.48961 + 0.57943I$	$5.02569 - 0.39325I$
$u = 0.434969 - 0.601443I$ $a = 0.958601 + 0.178438I$ $b = -0.481321 + 0.092957I$	$1.48961 - 0.57943I$	$5.02569 + 0.39325I$
$u = 0.606671 + 0.412287I$ $a = 2.69689 + 1.44150I$ $b = -0.080725 + 1.288340I$	$-4.47346 + 0.84284I$	$-11.66035 - 0.97344I$
$u = 0.606671 - 0.412287I$ $a = 2.69689 - 1.44150I$ $b = -0.080725 - 1.288340I$	$-4.47346 - 0.84284I$	$-11.66035 + 0.97344I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.185752 + 1.318190I$ $a = 0.527217 + 0.328502I$ $b = -0.165255 + 1.390640I$	$-2.12322 - 4.24125I$	$-4.26882 + 3.51292I$
$u = 0.185752 - 1.318190I$ $a = 0.527217 - 0.328502I$ $b = -0.165255 - 1.390640I$	$-2.12322 + 4.24125I$	$-4.26882 - 3.51292I$
$u = 0.626028 + 0.000453I$ $a = -0.113573 + 1.317400I$ $b = -0.686643 - 0.521082I$	$0.61462 + 3.26287I$	$-1.84851 - 7.14359I$
$u = 0.626028 - 0.000453I$ $a = -0.113573 - 1.317400I$ $b = -0.686643 + 0.521082I$	$0.61462 - 3.26287I$	$-1.84851 + 7.14359I$
$u = 0.220678 + 0.522522I$ $a = -7.64643 + 0.56839I$ $b = 0.541758 - 0.847309I$	$-0.41969 - 2.46857I$	$5.02234 + 6.21524I$
$u = 0.220678 - 0.522522I$ $a = -7.64643 - 0.56839I$ $b = 0.541758 + 0.847309I$	$-0.41969 + 2.46857I$	$5.02234 - 6.21524I$
$u = 0.134435 + 0.540176I$ $a = 0.616458 + 0.177082I$ $b = -0.685607 - 0.966646I$	$0.34862 + 2.64648I$	$0.38453 - 4.62015I$
$u = 0.134435 - 0.540176I$ $a = 0.616458 - 0.177082I$ $b = -0.685607 + 0.966646I$	$0.34862 - 2.64648I$	$0.38453 + 4.62015I$
$u = -0.487313$ $a = 1.16119$ $b = 0.259706$	-1.21395	-9.56810
$u = -1.68632 + 0.08026I$ $a = 0.347568 - 0.381381I$ $b = -1.09335 - 0.89962I$	$1.94242 + 0.25898I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.68632-0.08026I$ $a=\ \ 0.347568+0.381381I$ $b=-1.09335+0.89962I$	$1.94242-0.25898I$	0
$u=\ \ 1.86202$ $a=\ \ 0.274789$ $b=-0.588779$	-6.81012	0
$u=-0.78573+1.74324I$ $a=-0.675257+0.449148I$ $b=\ \ 1.84271+0.04920I$	$6.33444-4.25779I$	0
$u=-0.78573-1.74324I$ $a=-0.675257-0.449148I$ $b=\ \ 1.84271-0.04920I$	$6.33444+4.25779I$	0
$u=\ \ 0.36940+1.96319I$ $a=-1.064530-0.184890I$ $b=\ \ 1.214130-0.199590I$	$10.56750-4.02468I$	0
$u=\ \ 0.36940-1.96319I$ $a=-1.064530+0.184890I$ $b=\ \ 1.214130+0.199590I$	$10.56750+4.02468I$	0
$u=\ \ 1.13922+2.02195I$ $a=\ \ 0.845877+0.411862I$ $b=-1.26404+1.60251I$	$17.0081-15.1515I$	0
$u=\ \ 1.13922-2.02195I$ $a=\ \ 0.845877-0.411862I$ $b=-1.26404-1.60251I$	$17.0081+15.1515I$	0
$u=-1.07898+2.08221I$ $a=\ \ 0.758885-0.409729I$ $b=-1.06379-1.81417I$	$16.6139+6.3485I$	0
$u=-1.07898-2.08221I$ $a=\ \ 0.758885+0.409729I$ $b=-1.06379+1.81417I$	$16.6139-6.3485I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.95530 + 1.96183I$ $a = -0.358887 - 0.264473I$ $b = 1.99385 + 0.02082I$	$8.32107 - 2.64989I$	0
$u = 1.95530 - 1.96183I$ $a = -0.358887 + 0.264473I$ $b = 1.99385 - 0.02082I$	$8.32107 + 2.64989I$	0
$u = -0.18789 + 2.88116I$ $a = 0.553430 - 0.032065I$ $b = -1.87447 + 1.62365I$	$18.1843 + 3.4592I$	0
$u = -0.18789 - 2.88116I$ $a = 0.553430 + 0.032065I$ $b = -1.87447 - 1.62365I$	$18.1843 - 3.4592I$	0
$u = -0.89301 + 2.76858I$ $a = -0.653362 + 0.138354I$ $b = 1.57197 + 0.58418I$	$12.09730 + 5.36685I$	0
$u = -0.89301 - 2.76858I$ $a = -0.653362 - 0.138354I$ $b = 1.57197 - 0.58418I$	$12.09730 - 5.36685I$	0
$u = -0.20333 + 3.10034I$ $a = 0.594985 - 0.039653I$ $b = -1.94922 - 1.37711I$	$19.1617 + 5.3151I$	0
$u = -0.20333 - 3.10034I$ $a = 0.594985 + 0.039653I$ $b = -1.94922 + 1.37711I$	$19.1617 - 5.3151I$	0

II.
$\boldsymbol{I_2^u = \langle -2.80\times 10^9 u^{16} + 1.23\times 10^9 u^{15} + \cdots + 5.78\times 10^9 b + 1.49\times 10^9,\ 8.42\times 10^6 u^{16} + 1.59\times 10^6 u^{15} + \cdots + 2.84\times 10^6 a - 4.34\times 10^7,\ u^{17} + 6u^{15} + \cdots - 3u - 1\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -2.95940u^{16} - 0.558807u^{15} + \cdots + 7.83137u + 15.2503 \\ 0.483653u^{16} - 0.212735u^{15} + \cdots - 1.67509u - 0.257452 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 2.84567u^{16} - 2.41889u^{15} + \cdots - 21.8102u + 1.32723 \\ 0.0829079u^{16} - 0.0995122u^{15} + \cdots - 1.83555u - 0.881897 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 1.42944u^{16} - 2.13476u^{15} + \cdots - 12.9726u + 6.25927 \\ 0.355787u^{16} - 0.159534u^{15} + \cdots - 2.01409u - 0.833403 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 2.12965u^{16} - 2.32997u^{15} + \cdots - 19.2348u + 2.86422 \\ 0.223987u^{16} - 0.211458u^{15} + \cdots - 2.28481u - 0.792978 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -1.08969u^{16} + 0.114263u^{15} + \cdots + 3.70066u + 2.95645 \\ 0.141079u^{16} - 0.111945u^{15} + \cdots - 0.449264u + 0.0889186 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1.18986u^{16} - 0.118103u^{15} + \cdots - 3.40302u - 2.98180 \\ 0.0172629u^{16} + 0.0956716u^{15} + \cdots + 1.13318u - 0.143448 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 1.23077u^{16} - 0.226208u^{15} + \cdots - 4.14992u - 2.86754 \\ 0.0648607u^{16} + 0.00369480u^{15} + \cdots + 0.102878u - 0.137290 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -4.27308u^{16} - 0.233087u^{15} + \cdots + 13.8168u + 17.9997 \\ 0.377489u^{16} - 0.184057u^{15} + \cdots - 1.56233u - 0.0206505 \end{pmatrix}$$

(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	$u^{17} - 6u^{16} + \cdots + 3u - 1$
c_6	$u^{17} - 3u^{16} + \cdots - 6u^2 - 1$
c_7	$u^{17} + 6u^{15} + \cdots + 3u + 1$
c_8	$u^{17} + 6u^{15} + \cdots - 3u - 1$
c_9	$u^{17} + 3u^{16} + \cdots + 6u^2 + 1$
c_{10}	$u^{17} + 3u^{16} + \cdots + 6u + 1$
c_{11}	$u^{17} + 6u^{15} + \cdots + 3u - 1$
c_{12}	$u^{17} - 5u^{16} + \cdots + 5u - 1$

(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	$y^{17} + 2y^{16} + \cdots + 19y - 1$
c_6, c_9	$y^{17} + 3y^{16} + \cdots - 12y - 1$
c_7, c_{11}	$y^{17} + 12y^{16} + \cdots - 3y - 1$
c_{10}	$y^{17} - 19y^{16} + \cdots - 2y - 1$
c_{12}	$y^{17} - 17y^{16} + \cdots + 7y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=\ \ 0.123817+0.916477I$ $a=-0.399407+0.909736I$ $b=-0.302924+0.816439I$	$2.61790-2.40485I$	$3.33881+2.22795I$
$u=\ \ 0.123817-0.916477I$ $a=-0.399407-0.909736I$ $b=-0.302924-0.816439I$	$2.61790+2.40485I$	$3.33881-2.22795I$
$u=-0.519605+0.973810I$ $a=-0.251920-0.419212I$ $b=-0.199212-0.760976I$	$1.04490+6.61108I$	$-1.52634-5.44334I$
$u=-0.519605-0.973810I$ $a=-0.251920+0.419212I$ $b=-0.199212+0.760976I$	$1.04490-6.61108I$	$-1.52634+5.44334I$
$u=-0.718697+0.273065I$ $a=\ \ 1.408880-0.113300I$ $b=-0.503625+0.659985I$	$1.14952-2.21103I$	$2.23770+3.38646I$
$u=-0.718697-0.273065I$ $a=\ \ 1.408880+0.113300I$ $b=-0.503625-0.659985I$	$1.14952+2.21103I$	$2.23770-3.38646I$
$u=\ \ 0.535223+1.162140I$ $a=-0.615278-0.480409I$ $b=-0.154895-1.305200I$	$-1.12324-5.07181I$	$-0.31929+6.91281I$
$u=\ \ 0.535223-1.162140I$ $a=-0.615278+0.480409I$ $b=-0.154895+1.305200I$	$-1.12324+5.07181I$	$-0.31929-6.91281I$
$u=-0.259361+1.266310I$ $a=-0.251583+0.034431I$ $b=-0.27641+1.42034I$	$0.516364-0.300871I$	$0.207427+0.470649I$
$u=-0.259361-1.266310I$ $a=-0.251583-0.034431I$ $b=-0.27641-1.42034I$	$0.516364+0.300871I$	$0.207427-0.470649I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.642620 + 0.176331I$ $a = -0.79573 - 4.21005I$ $b = 0.06025 - 1.48960I$	$-3.99885 + 0.50220I$	$-2.39894 + 6.28246I$
$u = 0.642620 - 0.176331I$ $a = -0.79573 + 4.21005I$ $b = 0.06025 + 1.48960I$	$-3.99885 - 0.50220I$	$-2.39894 - 6.28246I$
$u = -0.314004 + 0.270023I$ $a = 12.21260 + 4.46195I$ $b = 0.368087 - 0.696391I$	$-0.26934 - 3.00568I$	$-3.5088 - 14.7647I$
$u = -0.314004 - 0.270023I$ $a = 12.21260 - 4.46195I$ $b = 0.368087 + 0.696391I$	$-0.26934 + 3.00568I$	$-3.5088 + 14.7647I$
$u = 1.73212$ $a = 0.299870$ $b = -0.404382$	-6.94010	-36.0810
$u = -0.35606 + 2.09120I$ $a = -0.957501 + 0.103745I$ $b = 1.210930 + 0.258234I$	$10.11250 + 4.21829I$	$-4.98986 - 4.99941I$
$u = -0.35606 - 2.09120I$ $a = -0.957501 - 0.103745I$ $b = 1.210930 - 0.258234I$	$10.11250 - 4.21829I$	$-4.98986 + 4.99941I$

III. $\boldsymbol{I_1^v = \langle a,\ 8.20\times 10^4 v^8 - 2.03\times 10^6 v^7 + \cdots + 7.65\times 10^5 b - 1.55\times 10^6,\ 7v^9 - 3v^8 + \cdots + v - 1\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} v \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} v \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ -0.107257v^8 + 2.65850v^7 + \cdots - 0.280187v + 2.03006 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 2.14626v^8 + 0.185889v^7 + \cdots - 0.429870v + 1.30771 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -0.107257v^8 + 2.65850v^7 + \cdots - 0.280187v + 2.03006 \\ -1.38456v^8 + 4.21937v^7 + \cdots - 2.55986v + 1.77273 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 2.14626v^8 + 0.185889v^7 + \cdots - 0.429870v + 2.30771 \\ 2.14626v^8 + 0.185889v^7 + \cdots - 0.429870v + 1.30771 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -1.01346v^8 - 0.464403v^7 + \cdots + 1.07485v + 0.182471 \\ 7v^8 - 3v^7 + 2v^6 + 14v^5 - 23v^4 - 33v^3 - v^2 + 8v + 1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1.01346v^8 + 0.464403v^7 + \cdots - 0.0748548v - 0.182471 \\ -7v^8 + 3v^7 - 2v^6 - 14v^5 + 23v^4 + 33v^3 + v^2 - 8v - 1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 1.01346v^8 + 0.464403v^7 + \cdots - 1.07485v - 0.182471 \\ -7v^8 + 3v^7 - 2v^6 - 14v^5 + 23v^4 + 33v^3 + v^2 - 8v - 1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -5.30121v^8 + 5.22147v^7 + \cdots - 3.83160v + 0.359036 \\ -7.44747v^8 + 5.03558v^7 + \cdots - 3.40173v - 1.94867 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{6992041}{764761}v^8 + \frac{5331628}{764761}v^7 - \frac{6285069}{764761}v^6 - \frac{9541876}{764761}v^5 + \frac{21850087}{764761}v^4 + \frac{25370276}{764761}v^3 - \frac{321417}{764761}v^2 + \frac{135859}{764761}v + \frac{1854463}{764761}$

(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	$u^9+5u^8+12u^7+15u^6+9u^5-u^4-4u^3-2u^2+u+1$
c_6	$u^9-3u^8+8u^7-13u^6+17u^5-17u^4+12u^3-6u^2+u+1$
c_7	$u^9-u^8+2u^7-u^6+3u^5-u^4+2u^3+u+1$
c_9	$u^9+3u^8+8u^7+13u^6+17u^5+17u^4+12u^3+6u^2+u-1$
c_{10}, c_{12}	$u^9+u^8-2u^7-3u^6+u^5+3u^4+2u^3-u-1$
c_{11}	$u^9+u^8+2u^7+u^6+3u^5+u^4+2u^3+u-1$

(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	$y^9 - y^8 + 12y^7 - 7y^6 + 37y^5 + y^4 - 10y^2 + 5y - 1$
c_6, c_9	$y^9 + 7y^8 + 20y^7 + 25y^6 + 5y^5 - 15y^4 + 22y^2 + 13y - 1$
c_7, c_{11}	$y^9 + 3y^8 + 8y^7 + 13y^6 + 17y^5 + 17y^4 + 12y^3 + 6y^2 + y - 1$
c_{10}, c_{12}	$y^9 - 5y^8 + 12y^7 - 15y^6 + 9y^5 + y^4 - 4y^3 + 2y^2 + y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$v = -0.903964 + 0.094390I$ $a = 0$ $b = -0.140343 + 0.966856I$	$-3.42837 - 2.09337I$	$-6.52230 + 4.24226I$
$v = -0.903964 - 0.094390I$ $a = 0$ $b = -0.140343 - 0.966856I$	$-3.42837 + 2.09337I$	$-6.52230 - 4.24226I$
$v = 1.42091$ $a = 0$ $b = -0.512358$	-0.446489	3.16660
$v = -0.476406 + 0.294981I$ $a = 0$ $b = 0.796005 + 0.733148I$	$2.72642 - 1.33617I$	$0.84367 + 3.27176I$
$v = -0.476406 - 0.294981I$ $a = 0$ $b = 0.796005 - 0.733148I$	$2.72642 + 1.33617I$	$0.84367 - 3.27176I$
$v = 0.352455 + 0.113243I$ $a = 0$ $b = 0.728966 - 0.986295I$	$1.95319 - 7.08493I$	$3.61934 + 1.74309I$
$v = 0.352455 - 0.113243I$ $a = 0$ $b = 0.728966 + 0.986295I$	$1.95319 + 7.08493I$	$3.61934 - 1.74309I$
$v = 0.53175 + 1.59553I$ $a = 0$ $b = -0.628449 + 0.875112I$	$-1.02799 - 2.45442I$	$-8.21790 + 4.39771I$
$v = 0.53175 - 1.59553I$ $a = 0$ $b = -0.628449 - 0.875112I$	$-1.02799 + 2.45442I$	$-8.21790 - 4.39771I$

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	$(u^9+5u^8+12u^7+15u^6+9u^5-u^4-4u^3-2u^2+u+1)$ $\cdot(u^{17}-6u^{16}+\cdots+3u-1)(u^{38}+4u^{37}+\cdots-114u-17)$
c_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	$(u^9-u^8+\cdots+u+1)(u^{17}+6u^{15}+\cdots+3u+1)$ $\cdot(u^{38}-2u^{37}+\cdots-3904u-5873)$
c_8	$u^9(u^{17}+6u^{15}+\cdots-3u-1)(u^{38}-u^{37}+\cdots+86016u-25088)$
c_9	$(u^9+3u^8+8u^7+13u^6+17u^5+17u^4+12u^3+6u^2+u-1)$ $\cdot(u^{17}+3u^{16}+\cdots+6u^2+1)(u^{38}-3u^{37}+\cdots-446u+44)$
c_{10}	$(u^9+u^8+\cdots-u-1)(u^{17}+3u^{16}+\cdots+6u+1)$ $\cdot(u^{38}+u^{37}+\cdots+40881797u+3617129)$
c_{11}	$(u^9+u^8+\cdots+u-1)(u^{17}+6u^{15}+\cdots+3u-1)$ $\cdot(u^{38}-2u^{37}+\cdots-3904u-5873)$
c_{12}	$(u^9+u^8+\cdots-u-1)(u^{17}-5u^{16}+\cdots+5u-1)$ $\cdot(u^{38}+u^{37}+\cdots+79046u-14009)$

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	$(y^9-y^8+12y^7-7y^6+37y^5+y^4-10y^2+5y-1)$ $\cdot(y^{17}+2y^{16}+\cdots+19y-1)(y^{38}-6y^{37}+\cdots-8270y+289)$
c_6, c_9	$(y^9+7y^8+20y^7+25y^6+5y^5-15y^4+22y^2+13y-1)$ $\cdot(y^{17}+3y^{16}+\cdots-12y-1)(y^{38}+35y^{37}+\cdots-111884y+1936)$
c_7, c_{11}	$(y^9+3y^8+8y^7+13y^6+17y^5+17y^4+12y^3+6y^2+y-1)$ $\cdot(y^{17}+12y^{16}+\cdots-3y-1)$ $\cdot(y^{38}-12y^{37}+\cdots-781291844y+34492129)$
c_{10}	$(y^9-5y^8+12y^7-15y^6+9y^5+y^4-4y^3+2y^2+y-1)$ $\cdot(y^{17}-19y^{16}+\cdots-2y-1)$ $\cdot(y^{38}-107y^{37}+\cdots-346184004395873y+13083622202641)$
c_{12}	$(y^9-5y^8+12y^7-15y^6+9y^5+y^4-4y^3+2y^2+y-1)$ $\cdot(y^{17}-17y^{16}+\cdots+7y-1)$ $\cdot(y^{38}-69y^{37}+\cdots-9544952050y+196252081)$