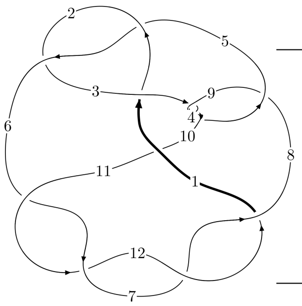
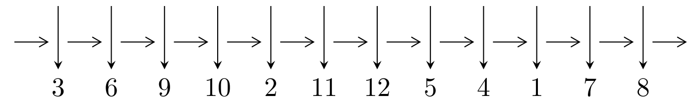
$12a_{0367}$ $(K12a_{0367})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -5.26039\times 10^{20}u^{71} - 3.31809\times 10^{22}u^{70} + \cdots + 4.33870\times 10^{22}b + 1.79186\times 10^{22},$$
$$-8.36919\times 10^{22}u^{71} + 1.25008\times 10^{23}u^{70} + \cdots + 8.67739\times 10^{22}a + 3.24699\times 10^{22},\ u^{72} - 2u^{71} + \cdots + 2u -$$
$$I_2^u = \langle b-1,\ a^2-2a+2u-3,\ u^2-u-1\rangle$$
$$I_3^u = \langle b+1,\ a+1,\ u^2+u-1\rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 78 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.

$I_1^u = \langle -5.26\times10^{20}u^{71} - 3.32\times10^{22}u^{70} + \cdots + 4.34\times10^{22}b + 1.79\times10^{22},\ -8.37\times10^{22}u^{71} + 1.25\times10^{23}u^{70} + \cdots + 8.68\times10^{22}a + 3.25\times10^{22},\ u^{72} - 2u^{71} + \cdots + 2u + 1\rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 0.964482u^{71} - 1.44061u^{70} + \cdots - 11.9876u - 0.374190 \\ 0.0121244u^{71} + 0.764766u^{70} + \cdots + 0.453521u - 0.412996 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 0.976607u^{71} - 0.675847u^{70} + \cdots - 11.5341u - 0.787186 \\ 0.0121244u^{71} + 0.764766u^{70} + \cdots + 0.453521u - 0.412996 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^3 - 2u \\ u^5 - 3u^3 + u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -1.98741u^{71} + 1.11158u^{70} + \cdots + 14.3859u + 3.65867 \\ -0.926705u^{71} + 0.404836u^{70} + \cdots + 1.82730u + 0.532714 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0.472718u^{71} - 1.08136u^{70} + \cdots - 16.3593u - 1.33874 \\ -1.10315u^{71} + 1.20031u^{70} + \cdots + 2.20486u + 0.947164 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^7 - 4u^5 + 4u^3 \\ u^9 - 5u^7 + 7u^5 - 2u^3 + u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -1.55989u^{71} + 0.727017u^{70} + \cdots + 13.9611u + 3.63430 \\ -0.566397u^{71} + 0.322301u^{70} + \cdots - 0.405449u - 0.412002 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{1249253911408697055398 49}{4338696139456389833797 7}u^{71} + \frac{1557866022283141711853 71}{4338696139456389833797 7}u^{70} + \cdots + \frac{5361490160948435182848 93}{4338696139456389833797 7}u - \frac{5971347305016555027617 45}{4338696139456389833797 7}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{72} + 37u^{71} + \cdots + 29u + 1$
c_2, c_5	$u^{72} + 3u^{71} + \cdots + 7u + 1$
c_3, c_4, c_9	$u^{72} - u^{71} + \cdots - 12u - 4$
c_6, c_7, c_{11} c_{12}	$u^{72} - 2u^{71} + \cdots + 2u + 1$
c_8	$u^{72} + 3u^{71} + \cdots + 1492u + 220$
c_{10}	$u^{72} - 20u^{71} + \cdots - 348u + 113$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{72} + 3y^{71} + \cdots - 197y + 1$
c_2, c_5	$y^{72} - 37y^{71} + \cdots - 29y + 1$
c_3, c_4, c_9	$y^{72} - 67y^{71} + \cdots - 16y + 16$
c_6, c_7, c_{11} c_{12}	$y^{72} - 84y^{71} + \cdots - 20y + 1$
c_8	$y^{72} - 7y^{71} + \cdots - 402704y + 48400$
c_{10}	$y^{72} - 12y^{71} + \cdots - 272524y + 12769$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.928218 + 0.309234I$ $a = -0.354302 + 0.192132I$ $b = -1.065700 + 0.515640I$	$-7.24752 + 4.65448I$	0
$u = 0.928218 - 0.309234I$ $a = -0.354302 - 0.192132I$ $b = -1.065700 - 0.515640I$	$-7.24752 - 4.65448I$	0
$u = -0.737630 + 0.531689I$ $a = -0.70377 - 2.08141I$ $b = -1.166590 + 0.587970I$	$-5.52989 + 11.86830I$	0
$u = -0.737630 - 0.531689I$ $a = -0.70377 + 2.08141I$ $b = -1.166590 - 0.587970I$	$-5.52989 - 11.86830I$	0
$u = -0.884804 + 0.189140I$ $a = 0.504034 + 0.110912I$ $b = 0.931780 + 0.416732I$	$-2.20323 - 1.64389I$	0
$u = -0.884804 - 0.189140I$ $a = 0.504034 - 0.110912I$ $b = 0.931780 - 0.416732I$	$-2.20323 + 1.64389I$	0
$u = 0.883338 + 0.137471I$ $a = -0.750844 + 0.235422I$ $b = -0.381393 - 0.511313I$	$-5.31297 + 0.37168I$	$-12.00000 + 0.I$
$u = 0.883338 - 0.137471I$ $a = -0.750844 - 0.235422I$ $b = -0.381393 + 0.511313I$	$-5.31297 - 0.37168I$	$-12.00000 + 0.I$
$u = 0.690814 + 0.522826I$ $a = 0.56315 - 2.15893I$ $b = 1.099150 + 0.589092I$	$0.02673 - 8.09347I$	$-12.0000 + 9.2851I$
$u = 0.690814 - 0.522826I$ $a = 0.56315 + 2.15893I$ $b = 1.099150 - 0.589092I$	$0.02673 + 8.09347I$	$-12.0000 - 9.2851I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.678297 + 0.515178I$ $a = 0.977292 + 0.542744I$ $b = -0.295256 - 0.854652I$	$-2.93335 + 6.55153I$	$-14.6691 - 6.1676I$
$u = -0.678297 - 0.515178I$ $a = 0.977292 - 0.542744I$ $b = -0.295256 + 0.854652I$	$-2.93335 - 6.55153I$	$-14.6691 + 6.1676I$
$u = -0.630548 + 0.470751I$ $a = -0.34238 - 2.38082I$ $b = -1.003340 + 0.528804I$	$-1.31023 + 3.89736I$	$-15.2781 - 4.8812I$
$u = -0.630548 - 0.470751I$ $a = -0.34238 + 2.38082I$ $b = -1.003340 - 0.528804I$	$-1.31023 - 3.89736I$	$-15.2781 + 4.8812I$
$u = -0.669262 + 0.404635I$ $a = 0.465808 + 0.565250I$ $b = 1.254740 + 0.247917I$	$-7.95058 + 3.07874I$	$-19.9096 - 5.4080I$
$u = -0.669262 - 0.404635I$ $a = 0.465808 - 0.565250I$ $b = 1.254740 - 0.247917I$	$-7.95058 - 3.07874I$	$-19.9096 + 5.4080I$
$u = 0.597312 + 0.499582I$ $a = -1.048900 + 0.571843I$ $b = 0.401917 - 0.758054I$	$2.07881 - 2.99552I$	$-9.38208 + 5.15386I$
$u = 0.597312 - 0.499582I$ $a = -1.048900 - 0.571843I$ $b = 0.401917 + 0.758054I$	$2.07881 + 2.99552I$	$-9.38208 - 5.15386I$
$u = 0.670676 + 0.356136I$ $a = 0.63994 - 3.06673I$ $b = 1.042790 + 0.370481I$	$-8.27974 - 2.07809I$	$-20.0885 + 6.6662I$
$u = 0.670676 - 0.356136I$ $a = 0.63994 + 3.06673I$ $b = 1.042790 - 0.370481I$	$-8.27974 + 2.07809I$	$-20.0885 - 6.6662I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.464343 + 0.536069I$ $a = 0.09506 - 1.92402I$ $b = -0.761545 + 0.651812I$	$-0.22536 + 4.12491I$	$-12.4469 - 7.3915I$
$u = -0.464343 - 0.536069I$ $a = 0.09506 + 1.92402I$ $b = -0.761545 - 0.651812I$	$-0.22536 - 4.12491I$	$-12.4469 + 7.3915I$
$u = -0.154574 + 0.651894I$ $a = 0.81766 + 1.18825I$ $b = -1.116310 - 0.581761I$	$-3.80714 - 7.87957I$	$-14.4786 + 4.9899I$
$u = -0.154574 - 0.651894I$ $a = 0.81766 - 1.18825I$ $b = -1.116310 + 0.581761I$	$-3.80714 + 7.87957I$	$-14.4786 - 4.9899I$
$u = 0.614548 + 0.255524I$ $a = -0.757214 + 0.499889I$ $b = -1.130020 + 0.157751I$	$-2.78857 - 0.70974I$	$-15.3214 + 8.6751I$
$u = 0.614548 - 0.255524I$ $a = -0.757214 - 0.499889I$ $b = -1.130020 - 0.157751I$	$-2.78857 + 0.70974I$	$-15.3214 - 8.6751I$
$u = -0.432857 + 0.495289I$ $a = 1.20679 + 0.74677I$ $b = -0.640326 - 0.609624I$	$-0.159008 - 0.526549I$	$-12.09743 - 0.07898I$
$u = -0.432857 - 0.495289I$ $a = 1.20679 - 0.74677I$ $b = -0.640326 + 0.609624I$	$-0.159008 + 0.526549I$	$-12.09743 + 0.07898I$
$u = 0.207458 + 0.606070I$ $a = -0.95467 + 1.17138I$ $b = 1.020010 - 0.576008I$	$1.44186 + 4.25219I$	$-9.65797 - 4.16216I$
$u = 0.207458 - 0.606070I$ $a = -0.95467 - 1.17138I$ $b = 1.020010 + 0.576008I$	$1.44186 - 4.25219I$	$-9.65797 + 4.16216I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.330405 + 0.540726I$ $a = -0.21935 - 1.63303I$ $b = 0.543025 + 0.677815I$	$2.85712 - 0.60484I$	$-6.72055 + 2.73837I$
$u = 0.330405 - 0.540726I$ $a = -0.21935 + 1.63303I$ $b = 0.543025 - 0.677815I$	$2.85712 + 0.60484I$	$-6.72055 - 2.73837I$
$u = -0.219371 + 0.590317I$ $a = 0.13232 - 1.46550I$ $b = -0.364491 + 0.774875I$	$-1.59296 - 2.77751I$	$-11.43809 + 0.51083I$
$u = -0.219371 - 0.590317I$ $a = 0.13232 + 1.46550I$ $b = -0.364491 - 0.774875I$	$-1.59296 + 2.77751I$	$-11.43809 - 0.51083I$
$u = -1.43199 + 0.05905I$ $a = 0.137202 + 0.892850I$ $b = 0.769513 - 0.690097I$	$-2.64448 + 2.59240I$	0
$u = -1.43199 - 0.05905I$ $a = 0.137202 - 0.892850I$ $b = 0.769513 + 0.690097I$	$-2.64448 - 2.59240I$	0
$u = -0.298512 + 0.480016I$ $a = 1.31900 + 1.05008I$ $b = -0.816807 - 0.489111I$	$-0.322274 - 0.536528I$	$-12.40737 - 1.35367I$
$u = -0.298512 - 0.480016I$ $a = 1.31900 - 1.05008I$ $b = -0.816807 + 0.489111I$	$-0.322274 + 0.536528I$	$-12.40737 + 1.35367I$
$u = 1.44062 + 0.04719I$ $a = 0.166631 - 0.612110I$ $b = -0.646775 + 0.712591I$	$-5.88879 - 1.18432I$	0
$u = 1.44062 - 0.04719I$ $a = 0.166631 + 0.612110I$ $b = -0.646775 - 0.712591I$	$-5.88879 + 1.18432I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.47803 + 0.12168I$ $a = -0.385579 + 1.121210I$ $b = -0.883821 - 0.684109I$	$-6.54042 - 6.43614I$	0
$u = 1.47803 - 0.12168I$ $a = -0.385579 - 1.121210I$ $b = -0.883821 + 0.684109I$	$-6.54042 + 6.43614I$	0
$u = 1.52990$ $a = 1.17737$ $b = 1.28361$	-12.4085	0
$u = 1.54276 + 0.09438I$ $a = 0.536674 - 0.392892I$ $b = -0.398329 + 0.709261I$	$-6.76870 - 1.23124I$	0
$u = 1.54276 - 0.09438I$ $a = 0.536674 + 0.392892I$ $b = -0.398329 - 0.709261I$	$-6.76870 + 1.23124I$	0
$u = -1.56930 + 0.13818I$ $a = -0.509105 - 0.235933I$ $b = 0.316957 + 0.850275I$	$-5.21517 + 5.29137I$	0
$u = -1.56930 - 0.13818I$ $a = -0.509105 + 0.235933I$ $b = 0.316957 - 0.850275I$	$-5.21517 - 5.29137I$	0
$u = -1.58519 + 0.08012I$ $a = -1.075000 - 0.153161I$ $b = -1.247880 - 0.216923I$	$-10.34390 + 1.99279I$	0
$u = -1.58519 - 0.08012I$ $a = -1.075000 + 0.153161I$ $b = -1.247880 + 0.216923I$	$-10.34390 - 1.99279I$	0
$u = 1.58354 + 0.13428I$ $a = -0.90062 + 1.56369I$ $b = -1.091900 - 0.562937I$	$-8.80863 - 6.10945I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.58354 - 0.13428I$ $a = -0.90062 - 1.56369I$ $b = -1.091900 + 0.562937I$	$-8.80863 + 6.10945I$	0
$u = -1.59498 + 0.02541I$ $a = -1.026250 - 0.269553I$ $b = 0.227957 + 0.286684I$	$-13.76460 + 0.04291I$	0
$u = -1.59498 - 0.02541I$ $a = -1.026250 + 0.269553I$ $b = 0.227957 - 0.286684I$	$-13.76460 - 0.04291I$	0
$u = -1.59687 + 0.10259I$ $a = 0.95169 + 1.95273I$ $b = 1.080760 - 0.462527I$	$-16.0269 + 3.7857I$	0
$u = -1.59687 - 0.10259I$ $a = 0.95169 - 1.95273I$ $b = 1.080760 + 0.462527I$	$-16.0269 - 3.7857I$	0
$u = 1.59634 + 0.11517I$ $a = 1.058470 - 0.213570I$ $b = 1.306430 - 0.292171I$	$-15.6716 - 5.0007I$	0
$u = 1.59634 - 0.11517I$ $a = 1.058470 + 0.213570I$ $b = 1.306430 + 0.292171I$	$-15.6716 + 5.0007I$	0
$u = 1.59603 + 0.15088I$ $a = 0.526312 - 0.168658I$ $b = -0.243882 + 0.912614I$	$-10.61980 - 9.02169I$	0
$u = 1.59603 - 0.15088I$ $a = 0.526312 + 0.168658I$ $b = -0.243882 - 0.912614I$	$-10.61980 + 9.02169I$	0
$u = -1.60049 + 0.15455I$ $a = 1.05682 + 1.42543I$ $b = 1.156870 - 0.592655I$	$-7.71958 + 10.61700I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.60049 - 0.15455I$ $a = 1.05682 - 1.42543I$ $b = 1.156870 + 0.592655I$	$-7.71958 - 10.61700I$	0
$u = -0.131293 + 0.355319I$ $a = 0.20840 + 2.27516I$ $b = 1.145400 - 0.148687I$	$-6.48927 - 0.23669I$	$-15.5734 - 1.1399I$
$u = -0.131293 - 0.355319I$ $a = 0.20840 - 2.27516I$ $b = 1.145400 + 0.148687I$	$-6.48927 + 0.23669I$	$-15.5734 + 1.1399I$
$u = 1.61800 + 0.15854I$ $a = -1.17742 + 1.38527I$ $b = -1.204960 - 0.585327I$	$-13.5182 - 14.4723I$	0
$u = 1.61800 - 0.15854I$ $a = -1.17742 - 1.38527I$ $b = -1.204960 + 0.585327I$	$-13.5182 + 14.4723I$	0
$u = 1.63839 + 0.04440I$ $a = 0.969701 - 0.100633I$ $b = 1.021090 - 0.277570I$	$-10.84760 + 0.79068I$	0
$u = 1.63839 - 0.04440I$ $a = 0.969701 + 0.100633I$ $b = 1.021090 + 0.277570I$	$-10.84760 - 0.79068I$	0
$u = -1.64717$ $a = -0.905015$ $b = -0.467479$	-13.9145	0
$u = -0.339972$ $a = 0.935322$ $b = -0.240550$	-0.545345	-17.9680
$u = -1.66353 + 0.06990I$ $a = -0.938576 - 0.156768I$ $b = -1.076900 - 0.435530I$	$-16.2206 - 3.2650I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.66353-0.06990I$ $a=-0.938576+0.156768I$ $b=-1.076900+0.435530I$	$-16.2206+3.2650I$	0
$u=\ \ 0.311962$ $a=-5.58565$ $b=\ \ 0.860089$	-6.70110	-11.7920

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

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ u+1 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -u \\ -u-1 \end{pmatrix}$$

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

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

$$a_2 = \begin{pmatrix} a+1 \\ 1 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -a \\ -1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} au-2 \\ au-2u \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} au-u-1 \\ au+a-u-2 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -24$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.618034$ $a = -1.28825$ $b = 1.00000$	-7.56670	-24.0000
$u = -0.618034$ $a = 3.28825$ $b = 1.00000$	-7.56670	-24.0000
$u = 1.61803$ $a = 0.125968$ $b = 1.00000$	-15.4624	-24.0000
$u = 1.61803$ $a = 1.87403$ $b = 1.00000$	-15.4624	-24.0000

III. $I_3^u = \langle b+1,\ a+1,\ u^2+u-1 \rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ -u+1 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -u \\ -u+1 \end{pmatrix}$$

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

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

$$a_2 = \begin{pmatrix} -2 \\ -1 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -1 \\ -1 \end{pmatrix}$$

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

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

$$a_4 = \begin{pmatrix} -1 \\ -1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -14$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.618034$ $a = -1.00000$ $b = -1.00000$	-2.63189	-14.0000
$u = -1.61803$ $a = -1.00000$ $b = -1.00000$	-10.5276	-14.0000

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^6)(u^{72}+37u^{71}+\cdots+29u+1)$
c_2	$((u-1)^2)(u+1)^4(u^{72}+3u^{71}+\cdots+7u+1)$
c_3, c_4, c_9	$u^2(u^2-2)^2(u^{72}-u^{71}+\cdots-12u-4)$
c_5	$((u-1)^4)(u+1)^2(u^{72}+3u^{71}+\cdots+7u+1)$
c_6, c_7	$((u^2-u-1)^2)(u^2+u-1)(u^{72}-2u^{71}+\cdots+2u+1)$
c_8	$u^2(u^2-2)^2(u^{72}+3u^{71}+\cdots+1492u+220)$
c_{10}	$((u^2+u-1)^3)(u^{72}-20u^{71}+\cdots-348u+113)$
c_{11}, c_{12}	$(u^2-u-1)(u^2+u-1)^2(u^{72}-2u^{71}+\cdots+2u+1)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^6)(y^{72}+3y^{71}+\cdots-197y+1)$
c_2, c_5	$((y-1)^6)(y^{72}-37y^{71}+\cdots-29y+1)$
c_3, c_4, c_9	$y^2(y-2)^4(y^{72}-67y^{71}+\cdots-16y+16)$
c_6, c_7, c_{11} c_{12}	$((y^2-3y+1)^3)(y^{72}-84y^{71}+\cdots-20y+1)$
c_8	$y^2(y-2)^4(y^{72}-7y^{71}+\cdots-402704y+48400)$
c_{10}	$((y^2-3y+1)^3)(y^{72}-12y^{71}+\cdots-272524y+12769)$