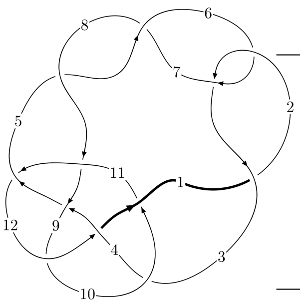
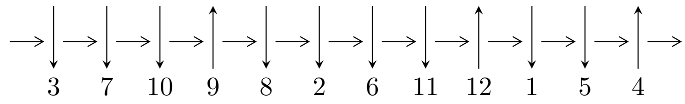
$12a_{0628}$ ($K12a_{0628}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle &-8.07461 \times 10^{68} u^{46} + 1.87630 \times 10^{70} u^{45} + \cdots + 3.58440 \times 10^{69} b + 2.42033 \times 10^{69},\\
&- 4.03525 \times 10^{69} u^{46} + 9.96490 \times 10^{70} u^{45} + \cdots + 7.16879 \times 10^{69} a - 2.41381 \times 10^{70},\\
&u^{47} - 25u^{46} + \cdots + 9u - 2\rangle\\
I_2^u = \langle &2u^{34} a + 9u^{34} + \cdots - 16a - 66,\ 74u^{34} a + 11u^{34} + \cdots - 1408a - 380,\ u^{35} + 17u^{34} + \cdots - 36u - 8\rangle\\
I_3^u = \langle &-u^{13} - 11u^{12} + \cdots + b - 69,\ -50u^{13} - 600u^{12} + \cdots + 119a - 5520,\ u^{14} + 12u^{13} + \cdots + 753u + 119\rangle
\end{aligned}$$

$$I_1^v = \langle a,\ 6v^5 - 52v^4 + 157v^3 - 196v^2 + b + 114v - 20,\ v^6 - 9v^5 + 29v^4 - 41v^3 + 29v^2 - 9v + 1\rangle$$

* 4 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 137 representations.

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[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. $\boldsymbol{I_1^u = \langle -8.07\times 10^{68}u^{46} + 1.88\times 10^{70}u^{45} + \cdots + 3.58\times 10^{69}b + 2.42\times 10^{69},\ -4.04\times 10^{69}u^{46} + 9.96\times 10^{70}u^{45} + \cdots + 7.17\times 10^{69}a - 2.41\times 10^{70},\ u^{47} - 25u^{46} + \cdots + 9u - 2\rangle}$

(i) Arc colorings

$$a_9 = \begin{pmatrix}1\\0\end{pmatrix}$$

$$a_{12} = \begin{pmatrix}0\\u\end{pmatrix}$$

$$a_5 = \begin{pmatrix}0.562891u^{46} - 13.9004u^{45} + \cdots - 5.16569u + 3.36710\\0.225271u^{46} - 5.23462u^{45} + \cdots - 1.00376u - 0.675240\end{pmatrix}$$

$$a_{10} = \begin{pmatrix}1\\-u^2\end{pmatrix}$$

$$a_4 = \begin{pmatrix}0.337620u^{46} - 8.66577u^{45} + \cdots - 4.16193u + 4.04234\\0.225271u^{46} - 5.23462u^{45} + \cdots - 1.00376u - 0.675240\end{pmatrix}$$

$$a_1 = \begin{pmatrix}0.169203u^{46} - 4.28920u^{45} + \cdots - 7.93593u + 2.72071\\0.0591214u^{46} - 1.09993u^{45} + \cdots - 0.197882u - 0.338406\end{pmatrix}$$

$$a_3 = \begin{pmatrix}0.165732u^{46} - 4.51075u^{45} + \cdots - 2.46301u + 2.91656\\0.435105u^{46} - 10.3002u^{45} + \cdots - 1.93948u - 0.390908\end{pmatrix}$$

$$a_2 = \begin{pmatrix}0.0648503u^{46} - 1.39194u^{45} + \cdots - 14.5959u + 2.04861\\-0.131505u^{46} + 3.30763u^{45} + \cdots - 0.786389u + 0.0263510\end{pmatrix}$$

$$a_{11} = \begin{pmatrix}-0.0906579u^{46} + 2.39136u^{45} + \cdots - 9.46119u + 1.92565\\-0.318982u^{46} + 7.78049u^{45} + \cdots + 0.672616u - 0.456649\end{pmatrix}$$

$$a_8 = \begin{pmatrix}0.242494u^{46} - 6.10090u^{45} + \cdots + 14.2499u - 0.538109\\0.220995u^{46} - 5.44044u^{45} + \cdots + 0.632902u + 0.206826\end{pmatrix}$$

$$a_6 = \begin{pmatrix}0.593189u^{46} - 14.8971u^{45} + \cdots + 5.69357u + 1.97676\\0.561061u^{46} - 13.2944u^{45} + \cdots - 0.319039u - 0.574337\end{pmatrix}$$

$$a_7 = \begin{pmatrix}0.784381u^{46} - 19.6156u^{45} + \cdots + 14.2320u + 1.32228\\0.322833u^{46} - 7.50881u^{45} + \cdots + 2.82860u - 0.790986\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.442403u^{46} - 9.99419u^{45} + \cdots - 2.55500u - 6.13236$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5, c_7	$u^{47} + 11u^{46} + \cdots + 129u + 16$
c_2, c_6	$u^{47} - 5u^{46} + \cdots + 5u + 4$
c_3, c_{11}	$u^{47} + 9u^{45} + \cdots - 6u + 1$
c_4, c_{12}	$u^{47} + 3u^{46} + \cdots + 3u + 1$
c_8, c_{10}	$u^{47} + 8u^{46} + \cdots + 14u - 1$
c_9	$u^{47} + 25u^{46} + \cdots + 9u + 2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5, c_7	$y^{47} + 53y^{46} + \cdots - 12319y - 256$
c_2, c_6	$y^{47} - 11y^{46} + \cdots + 129y - 16$
c_3, c_{11}	$y^{47} + 18y^{46} + \cdots + 24y - 1$
c_4, c_{12}	$y^{47} + 29y^{46} + \cdots - 53y - 1$
c_8, c_{10}	$y^{47} - 6y^{46} + \cdots + 316y - 1$
c_9	$y^{47} - 3y^{46} + \cdots + 109y - 4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.986892 + 0.257612I$ $a = -0.240592 + 0.022595I$ $b = -0.105712 + 0.949661I$	$-1.56579 + 2.13171I$	0
$u = 0.986892 - 0.257612I$ $a = -0.240592 - 0.022595I$ $b = -0.105712 - 0.949661I$	$-1.56579 - 2.13171I$	0
$u = -0.830353 + 0.249534I$ $a = 0.156117 - 0.996332I$ $b = -0.000476 - 0.473342I$	$1.96281 - 2.11633I$	$0. + 4.02661I$
$u = -0.830353 - 0.249534I$ $a = 0.156117 + 0.996332I$ $b = -0.000476 + 0.473342I$	$1.96281 + 2.11633I$	$0. - 4.02661I$
$u = 1.045570 + 0.455359I$ $a = 0.231147 - 0.651269I$ $b = -1.13460 - 1.29557I$	$-1.01169 + 1.42980I$	0
$u = 1.045570 - 0.455359I$ $a = 0.231147 + 0.651269I$ $b = -1.13460 + 1.29557I$	$-1.01169 - 1.42980I$	0
$u = 0.779229 + 0.975300I$ $a = -0.537680 + 0.259174I$ $b = -0.166184 + 0.726379I$	$-4.20569 - 1.69908I$	0
$u = 0.779229 - 0.975300I$ $a = -0.537680 - 0.259174I$ $b = -0.166184 - 0.726379I$	$-4.20569 + 1.69908I$	0
$u = 0.183042 + 0.680484I$ $a = 0.931695 - 0.444316I$ $b = -0.009062 - 0.684052I$	$-0.97551 - 1.07913I$	$-5.53069 + 4.56519I$
$u = 0.183042 - 0.680484I$ $a = 0.931695 + 0.444316I$ $b = -0.009062 + 0.684052I$	$-0.97551 + 1.07913I$	$-5.53069 - 4.56519I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.202810 + 0.603274I$ $a = -0.086506 + 0.756693I$ $b = 0.99713 + 1.26439I$	$1.79955 + 5.97631I$	0
$u = 1.202810 - 0.603274I$ $a = -0.086506 - 0.756693I$ $b = 0.99713 - 1.26439I$	$1.79955 - 5.97631I$	0
$u = 1.104270 + 0.787113I$ $a = 0.119630 - 0.908657I$ $b = -0.99509 - 1.20831I$	$-3.04962 + 8.17588I$	0
$u = 1.104270 - 0.787113I$ $a = 0.119630 + 0.908657I$ $b = -0.99509 + 1.20831I$	$-3.04962 - 8.17588I$	0
$u = 0.304094 + 1.336820I$ $a = 0.542187 - 0.423730I$ $b = 0.126684 - 0.613012I$	$-0.33080 - 2.07585I$	0
$u = 0.304094 - 1.336820I$ $a = 0.542187 + 0.423730I$ $b = 0.126684 + 0.613012I$	$-0.33080 + 2.07585I$	0
$u = 0.137187 + 0.560954I$ $a = 1.24351 - 1.45572I$ $b = -0.540535 - 0.928428I$	$4.33642 - 2.76626I$	$-6.11765 + 1.36219I$
$u = 0.137187 - 0.560954I$ $a = 1.24351 + 1.45572I$ $b = -0.540535 + 0.928428I$	$4.33642 + 2.76626I$	$-6.11765 - 1.36219I$
$u = 1.41903 + 0.21089I$ $a = 0.072584 + 0.499229I$ $b = 0.68921 + 1.38028I$	$9.20338 + 2.61174I$	0
$u = 1.41903 - 0.21089I$ $a = 0.072584 - 0.499229I$ $b = 0.68921 - 1.38028I$	$9.20338 - 2.61174I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.084908 + 0.552003I$ $a = -1.33147 + 1.55641I$ $b = 0.487600 + 0.952889I$	$4.42276 + 3.42689I$	$-5.94446 - 4.00737I$
$u = 0.084908 - 0.552003I$ $a = -1.33147 - 1.55641I$ $b = 0.487600 - 0.952889I$	$4.42276 - 3.42689I$	$-5.94446 + 4.00737I$
$u = 1.43830 + 0.13063I$ $a = -0.098758 - 0.457306I$ $b = -0.59129 - 1.35386I$	$8.76706 - 4.19529I$	0
$u = 1.43830 - 0.13063I$ $a = -0.098758 + 0.457306I$ $b = -0.59129 + 1.35386I$	$8.76706 + 4.19529I$	0
$u = 1.26461 + 0.85093I$ $a = 0.000444 + 0.909791I$ $b = 0.97549 + 1.21247I$	$2.31156 + 9.58565I$	0
$u = 1.26461 - 0.85093I$ $a = 0.000444 - 0.909791I$ $b = 0.97549 - 1.21247I$	$2.31156 - 9.58565I$	0
$u = 1.22930 + 0.93502I$ $a = -0.000607 - 0.968672I$ $b = -0.97798 - 1.20771I$	$0.2553 + 14.2440I$	0
$u = 1.22930 - 0.93502I$ $a = -0.000607 + 0.968672I$ $b = -0.97798 + 1.20771I$	$0.2553 - 14.2440I$	0
$u = -1.55593 + 0.05191I$ $a = 0.012590 - 0.744758I$ $b = 0.001750 - 0.453593I$	$10.52640 - 3.28012I$	0
$u = -1.55593 - 0.05191I$ $a = 0.012590 + 0.744758I$ $b = 0.001750 + 0.453593I$	$10.52640 + 3.28012I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.383960 + 0.015221I$ $a = -0.09489 + 4.37068I$ $b = 0.008396 + 1.213720I$	$5.31991 - 3.17818I$	$-5.96055 + 2.51448I$
$u = -0.383960 - 0.015221I$ $a = -0.09489 - 4.37068I$ $b = 0.008396 - 1.213720I$	$5.31991 + 3.17818I$	$-5.96055 - 2.51448I$
$u = 0.61115 + 1.50375I$ $a = -0.493409 + 0.370823I$ $b = -0.182737 + 0.618606I$	$-1.63385 - 6.10019I$	0
$u = 0.61115 - 1.50375I$ $a = -0.493409 - 0.370823I$ $b = -0.182737 - 0.618606I$	$-1.63385 + 6.10019I$	0
$u = 0.014272 + 0.328823I$ $a = -2.70355 + 1.41748I$ $b = 0.196161 + 0.946775I$	$-1.97861 + 1.49292I$	$-10.70609 - 5.87130I$
$u = 0.014272 - 0.328823I$ $a = -2.70355 - 1.41748I$ $b = 0.196161 - 0.946775I$	$-1.97861 - 1.49292I$	$-10.70609 + 5.87130I$
$u = 1.34828 + 1.00110I$ $a = 0.083860 + 0.974442I$ $b = 0.97814 + 1.20179I$	$9.8115 + 11.7454I$	0
$u = 1.34828 - 1.00110I$ $a = 0.083860 - 0.974442I$ $b = 0.97814 - 1.20179I$	$9.8115 - 11.7454I$	0
$u = 1.33518 + 1.02090I$ $a = -0.081979 - 0.988201I$ $b = -0.97956 - 1.20259I$	$9.3683 + 18.3359I$	0
$u = 1.33518 - 1.02090I$ $a = -0.081979 + 0.988201I$ $b = -0.97956 + 1.20259I$	$9.3683 - 18.3359I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.256430$ $a = 1.88104$ $b = -0.648700$	-1.19524	-8.00760
$u = -0.199176 + 0.097478I$ $a = -1.91491 + 5.71249I$ $b = 0.056148 + 1.109040I$	$-1.82406 - 1.46144I$	$-9.84747 + 4.59178I$
$u = -0.199176 - 0.097478I$ $a = -1.91491 - 5.71249I$ $b = 0.056148 - 1.109040I$	$-1.82406 + 1.46144I$	$-9.84747 - 4.59178I$
$u = 0.38526 + 1.94699I$ $a = 0.437854 - 0.407305I$ $b = 0.183052 - 0.551742I$	$7.14509 - 2.45592I$	0
$u = 0.38526 - 1.94699I$ $a = 0.437854 + 0.407305I$ $b = 0.183052 + 0.551742I$	$7.14509 + 2.45592I$	0
$u = 0.46782 + 1.95962I$ $a = -0.437774 + 0.397887I$ $b = -0.192176 + 0.554586I$	$6.91812 - 8.96525I$	0
$u = 0.46782 - 1.95962I$ $a = -0.437774 - 0.397887I$ $b = -0.192176 - 0.554586I$	$6.91812 + 8.96525I$	0

II. $I_2^u = \langle 2u^{34}a + 9u^{34} + \cdots - 16a - 66,\ 74u^{34}a + 11u^{34} + \cdots - 1408a - 380,\ u^{35} + 17u^{34} + \cdots - 36u - 8\rangle$

(i) Arc colorings

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} a \\ -u^{34}a - \frac{9}{2}u^{34} + \cdots + 8a + 33 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u^{34}a + \frac{9}{2}u^{34} + \cdots - 7a - 33 \\ -u^{34}a - \frac{9}{2}u^{34} + \cdots + 8a + 33 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} \frac{9}{2}u^{34}a - \frac{7}{8}u^{34} + \cdots - 33a + \frac{5}{2} \\ -1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^{34}a + 16u^{33}a + \cdots - 7a + 4 \\ -u^{34}a - \frac{7}{2}u^{34} + \cdots + 8a + 21 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} \frac{5}{2}u^{34}a + \frac{1}{8}u^{34} + \cdots - 12a - \frac{11}{2} \\ \frac{1}{2}u^{34}a - \frac{3}{4}u^{34} + \cdots - 12a - 2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} \frac{9}{2}u^{34}a + \frac{1}{8}u^{34} + \cdots - 37a - \frac{11}{2} \\ -2u^{33}a + u^{34} + \cdots - 4a - 7 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} \frac{3}{2}u^{34}a - \frac{7}{8}u^{34} + \cdots - 53a + \frac{5}{2} \\ u^{34}a + u^{34} + \cdots - 16a - 9 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -\frac{3}{4}u^{34}a - \frac{33}{8}u^{34} + \cdots + \frac{349}{2}u + 68 \\ -\frac{9}{2}u^{34} - \frac{151}{2}u^{33} + \cdots + 116u + 54 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -\frac{5}{4}u^{34}a - u^{34} + \cdots + 12a + 32 \\ \frac{1}{2}u^{34}a + \frac{1}{2}u^{34} + \cdots + 4a + 7 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{13}{4}u^{34} - \frac{227}{4}u^{33} + \cdots - \frac{895}{2}u - 65$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5, c_7	$(u^{35} + 8u^{34} + \cdots + 6u + 1)^2$
c_2, c_6	$(u^{35} + 2u^{34} + \cdots - 2u + 1)^2$
c_3, c_{11}	$u^{70} + 2u^{69} + \cdots - 10925u + 8375$
c_4, c_{12}	$u^{70} + 4u^{69} + \cdots + 9u + 1$
c_8, c_{10}	$u^{70} - 7u^{69} + \cdots - 1398u + 103$
c_9	$(u^{35} - 17u^{34} + \cdots - 36u + 8)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5, c_7	$(y^{35} + 40y^{34} + \cdots - 6y - 1)^2$
c_2, c_6	$(y^{35} - 8y^{34} + \cdots + 6y - 1)^2$
c_3, c_{11}	$y^{70} + 20y^{69} + \cdots + 3013313125y + 70140625$
c_4, c_{12}	$y^{70} - 8y^{69} + \cdots + 13y + 1$
c_8, c_{10}	$y^{70} + 33y^{69} + \cdots + 275134y + 10609$
c_9	$(y^{35} - 7y^{34} + \cdots + 1424y - 64)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.964127 + 0.262445I$ $a = 0.117573 - 1.015810I$ $b = 0.350664 - 1.060490I$	$1.94444 - 2.29540I$	$0.91018 + 4.37550I$
$u = -0.964127 + 0.262445I$ $a = 0.404381 - 0.827637I$ $b = -0.213001 + 0.104258I$	$1.94444 - 2.29540I$	$0.91018 + 4.37550I$
$u = -0.964127 - 0.262445I$ $a = 0.117573 + 1.015810I$ $b = 0.350664 + 1.060490I$	$1.94444 + 2.29540I$	$0.91018 - 4.37550I$
$u = -0.964127 - 0.262445I$ $a = 0.404381 + 0.827637I$ $b = -0.213001 - 0.104258I$	$1.94444 + 2.29540I$	$0.91018 - 4.37550I$
$u = -0.545063 + 0.930286I$ $a = -0.422586 + 0.935328I$ $b = -1.05299 + 1.06043I$	$-1.74570 - 6.26407I$	$-12.1310 + 10.5895I$
$u = -0.545063 + 0.930286I$ $a = -1.11507 - 1.00008I$ $b = 0.227226 - 0.654642I$	$-1.74570 - 6.26407I$	$-12.1310 + 10.5895I$
$u = -0.545063 - 0.930286I$ $a = -0.422586 - 0.935328I$ $b = -1.05299 - 1.06043I$	$-1.74570 + 6.26407I$	$-12.1310 - 10.5895I$
$u = -0.545063 - 0.930286I$ $a = -1.11507 + 1.00008I$ $b = 0.227226 + 0.654642I$	$-1.74570 + 6.26407I$	$-12.1310 - 10.5895I$
$u = -0.769928 + 0.815144I$ $a = 0.290344 - 0.925570I$ $b = 0.852648 - 1.015970I$	$0.08222 - 3.07227I$	$-4.95653 + 3.77311I$
$u = -0.769928 + 0.815144I$ $a = 0.821612 + 0.458607I$ $b = -0.359248 + 0.527956I$	$0.08222 - 3.07227I$	$-4.95653 + 3.77311I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.769928-0.815144I$ $a=\ \ 0.290344+0.925570I$ $b=\ \ 0.852648+1.015970I$	$0.08222+3.07227I$	$-4.95653-3.77311I$
$u=-0.769928-0.815144I$ $a=\ \ 0.821612-0.458607I$ $b=-0.359248-0.527956I$	$0.08222+3.07227I$	$-4.95653-3.77311I$
$u=-0.520349+0.616898I$ $a=-0.348333+1.069510I$ $b=-0.90908+1.30588I$	$-3.03157-1.36849I$	$-14.2578+4.5888I$
$u=-0.520349+0.616898I$ $a=-1.81715-0.28667I$ $b=\ \ 0.145968-0.468917I$	$-3.03157-1.36849I$	$-14.2578+4.5888I$
$u=-0.520349-0.616898I$ $a=-0.348333-1.069510I$ $b=-0.90908-1.30588I$	$-3.03157+1.36849I$	$-14.2578-4.5888I$
$u=-0.520349-0.616898I$ $a=-1.81715+0.28667I$ $b=\ \ 0.145968+0.468917I$	$-3.03157+1.36849I$	$-14.2578-4.5888I$
$u=\ \ 0.773064+0.207728I$ $a=\ \ 0.029702-1.290000I$ $b=\ \ 1.35908-0.77271I$	$11.23360+3.62608I$	$1.44054-2.93370I$
$u=\ \ 0.773064+0.207728I$ $a=-0.46892+2.04886I$ $b=\ \ 0.920239+0.676047I$	$11.23360+3.62608I$	$1.44054-2.93370I$
$u=\ \ 0.773064-0.207728I$ $a=\ \ 0.029702+1.290000I$ $b=\ \ 1.35908+0.77271I$	$11.23360-3.62608I$	$1.44054+2.93370I$
$u=\ \ 0.773064-0.207728I$ $a=-0.46892-2.04886I$ $b=\ \ 0.920239-0.676047I$	$11.23360-3.62608I$	$1.44054+2.93370I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.763132 + 0.228871I$ $a = -0.059405 + 1.268730I$ $b = -1.37969 + 0.78187I$	$10.7852 + 10.1738I$	$0.60965 - 7.87359I$
$u = 0.763132 + 0.228871I$ $a = 0.48070 - 2.11119I$ $b = -0.896123 - 0.673718I$	$10.7852 + 10.1738I$	$0.60965 - 7.87359I$
$u = 0.763132 - 0.228871I$ $a = -0.059405 - 1.268730I$ $b = -1.37969 - 0.78187I$	$10.7852 - 10.1738I$	$0.60965 + 7.87359I$
$u = 0.763132 - 0.228871I$ $a = 0.48070 + 2.11119I$ $b = -0.896123 + 0.673718I$	$10.7852 - 10.1738I$	$0.60965 + 7.87359I$
$u = -0.557804 + 1.163430I$ $a = -0.504376 + 0.846367I$ $b = -1.15064 + 0.93090I$	$5.85934 - 9.40637I$	0
$u = -0.557804 + 1.163430I$ $a = -0.77400 - 1.29127I$ $b = 0.262140 - 0.799037I$	$5.85934 - 9.40637I$	0
$u = -0.557804 - 1.163430I$ $a = -0.504376 - 0.846367I$ $b = -1.15064 - 0.93090I$	$5.85934 + 9.40637I$	0
$u = -0.557804 - 1.163430I$ $a = -0.77400 + 1.29127I$ $b = 0.262140 + 0.799037I$	$5.85934 + 9.40637I$	0
$u = 0.696782 + 0.078059I$ $a = -0.286945 - 1.206990I$ $b = 1.29659 - 0.59850I$	$4.06992 + 1.58553I$	$3.88029 - 1.71972I$
$u = 0.696782 + 0.078059I$ $a = -0.68685 + 1.60178I$ $b = 1.055880 + 0.547593I$	$4.06992 + 1.58553I$	$3.88029 - 1.71972I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.696782 - 0.078059I$ $a = -0.286945 + 1.206990I$ $b = 1.29659 + 0.59850I$	$4.06992 - 1.58553I$	$3.88029 + 1.71972I$
$u = 0.696782 - 0.078059I$ $a = -0.68685 - 1.60178I$ $b = 1.055880 - 0.547593I$	$4.06992 - 1.58553I$	$3.88029 + 1.71972I$
$u = -0.597263 + 1.172270I$ $a = 0.495613 - 0.826184I$ $b = 1.13743 - 0.90879I$	$6.09123 - 3.06029I$	0
$u = -0.597263 + 1.172270I$ $a = 0.72146 + 1.25846I$ $b = -0.286492 + 0.801724I$	$6.09123 - 3.06029I$	0
$u = -0.597263 - 1.172270I$ $a = 0.495613 + 0.826184I$ $b = 1.13743 + 0.90879I$	$6.09123 + 3.06029I$	0
$u = -0.597263 - 1.172270I$ $a = 0.72146 - 1.25846I$ $b = -0.286492 - 0.801724I$	$6.09123 + 3.06029I$	0
$u = 0.657111 + 0.150265I$ $a = 0.104447 + 1.068260I$ $b = -1.42166 + 0.62739I$	$1.93432 + 6.05072I$	$-0.26965 - 8.65398I$
$u = 0.657111 + 0.150265I$ $a = 0.91193 - 1.89650I$ $b = -0.936571 - 0.519018I$	$1.93432 + 6.05072I$	$-0.26965 - 8.65398I$
$u = 0.657111 - 0.150265I$ $a = 0.104447 - 1.068260I$ $b = -1.42166 - 0.62739I$	$1.93432 - 6.05072I$	$-0.26965 + 8.65398I$
$u = 0.657111 - 0.150265I$ $a = 0.91193 + 1.89650I$ $b = -0.936571 + 0.519018I$	$1.93432 - 6.05072I$	$-0.26965 + 8.65398I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.928482 + 1.034750I$ $a = 0.291145 + 0.812770I$ $b = -0.538881 + 0.711044I$	$0.13523 - 3.41860I$	0
$u = -0.928482 + 1.034750I$ $a = 0.236386 - 0.711345I$ $b = 0.875925 - 0.764420I$	$0.13523 - 3.41860I$	0
$u = -0.928482 - 1.034750I$ $a = 0.291145 - 0.812770I$ $b = -0.538881 - 0.711044I$	$0.13523 + 3.41860I$	0
$u = -0.928482 - 1.034750I$ $a = 0.236386 + 0.711345I$ $b = 0.875925 + 0.764420I$	$0.13523 + 3.41860I$	0
$u = -1.404630 + 0.025943I$ $a = 0.134206 - 0.793052I$ $b = 0.445608 - 0.484188I$	$10.47460 - 3.26575I$	0
$u = -1.404630 + 0.025943I$ $a = -0.121919 - 0.764495I$ $b = -0.445417 - 0.425761I$	$10.47460 - 3.26575I$	0
$u = -1.404630 - 0.025943I$ $a = 0.134206 + 0.793052I$ $b = 0.445608 + 0.484188I$	$10.47460 + 3.26575I$	0
$u = -1.404630 - 0.025943I$ $a = -0.121919 + 0.764495I$ $b = -0.445417 + 0.425761I$	$10.47460 + 3.26575I$	0
$u = 0.594216$ $a = 0.833572 + 0.866110I$ $b = -1.220660 + 0.322827I$	-0.882038	-0.340160
$u = 0.594216$ $a = 0.833572 - 0.866110I$ $b = -1.220660 - 0.322827I$	-0.882038	-0.340160

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.514940+0.140607I$ $a=-0.122479+1.275520I$ $b=-0.31441+1.76661I$	$1.66264+2.69554I$	$5.85968+3.62149I$
$u=-0.514940+0.140607I$ $a=-1.41021+2.75765I$ $b=\ \ 0.029782-0.279871I$	$1.66264+2.69554I$	$5.85968+3.62149I$
$u=-0.514940-0.140607I$ $a=-0.122479-1.275520I$ $b=-0.31441-1.76661I$	$1.66264-2.69554I$	$5.85968-3.62149I$
$u=-0.514940-0.140607I$ $a=-1.41021-2.75765I$ $b=\ \ 0.029782+0.279871I$	$1.66264-2.69554I$	$5.85968-3.62149I$
$u=-1.17020+0.97515I$ $a=\ \ 0.075112-0.995428I$ $b=\ \ 0.658256-0.866374I$	$2.08927-2.26390I$	0
$u=-1.17020+0.97515I$ $a=-0.112153+0.257338I$ $b=-0.808245+0.417634I$	$2.08927-2.26390I$	0
$u=-1.17020-0.97515I$ $a=\ \ 0.075112+0.995428I$ $b=\ \ 0.658256+0.866374I$	$2.08927+2.26390I$	0
$u=-1.17020-0.97515I$ $a=-0.112153-0.257338I$ $b=-0.808245-0.417634I$	$2.08927+2.26390I$	0
$u=-1.12595+1.09745I$ $a=\ \ 0.024734+1.034540I$ $b=-0.615985+0.860331I$	$1.71476-5.96924I$	0
$u=-1.12595+1.09745I$ $a=\ \ 0.250124-0.388618I$ $b=\ \ 0.912598-0.507009I$	$1.71476-5.96924I$	0

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.12595 - 1.09745I$ $a = \quad 0.024734 - 1.034540I$ $b = -0.615985 - 0.860331I$	$1.71476 + 5.96924I$	0
$u = -1.12595 - 1.09745I$ $a = \quad 0.250124 + 0.388618I$ $b = \quad 0.912598 + 0.507009I$	$1.71476 + 5.96924I$	0
$u = -1.30130 + 1.11600I$ $a = \quad 0.076914 - 1.114750I$ $b = \quad 0.645923 - 0.905225I$	$9.79528 - 1.36327I$	0
$u = -1.30130 + 1.11600I$ $a = -0.344518 + 0.206810I$ $b = -0.974282 + 0.362355I$	$9.79528 - 1.36327I$	0
$u = -1.30130 - 1.11600I$ $a = \quad 0.076914 + 1.114750I$ $b = \quad 0.645923 + 0.905225I$	$9.79528 + 1.36327I$	0
$u = -1.30130 - 1.11600I$ $a = -0.344518 - 0.206810I$ $b = -0.974282 - 0.362355I$	$9.79528 + 1.36327I$	0
$u = -1.28716 + 1.13850I$ $a = -0.063233 + 1.123160I$ $b = -0.639600 + 0.907852I$	$9.72328 - 7.82412I$	0
$u = -1.28716 + 1.13850I$ $a = \quad 0.358190 - 0.229933I$ $b = \quad 0.987003 - 0.379060I$	$9.72328 - 7.82412I$	0
$u = -1.28716 - 1.13850I$ $a = -0.063233 - 1.123160I$ $b = -0.639600 - 0.907852I$	$9.72328 + 7.82412I$	0
$u = -1.28716 - 1.13850I$ $a = \quad 0.358190 + 0.229933I$ $b = \quad 0.987003 + 0.379060I$	$9.72328 + 7.82412I$	0

III. $\boldsymbol{I^u_3 = \langle -u^{13} - 11u^{12} + \cdots + b - 69,\ -50u^{13} - 600u^{12} + \cdots + 119a - 5520,\ u^{14} + 12u^{13} + \cdots + 753u + 119\rangle}$

(i) Arc colorings

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.420168u^{13} + 5.04202u^{12} + \cdots + 261.403u + 46.3866 \\ u^{13} + 11u^{12} + \cdots + 414u + 69 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.579832u^{13} - 5.95798u^{12} + \cdots - 152.597u - 22.6134 \\ u^{13} + 11u^{12} + \cdots + 414u + 69 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.991597u^{13} + 10.8992u^{12} + \cdots + 614.832u + 111.672 \\ -u^{13} - 11u^{12} + \cdots - 634u - 118 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.579832u^{13} - 6.95798u^{12} + \cdots - 422.597u - 72.6134 \\ -u^{13} - 11u^{12} + \cdots - 339u - 50 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.00840336u^{13} + 0.100840u^{12} + \cdots + 18.1681u + 3.32773 \\ u^4 + 2u^3 + 2u^2 - 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.00840336u^{13} - 0.100840u^{12} + \cdots - 20.1681u - 5.32773 \\ u + 1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.00840336u^{13} + 0.100840u^{12} + \cdots + 19.1681u + 5.32773 \\ -u^2 - 2u - 1 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.260504u^{13} + 3.12605u^{12} + \cdots + 213.210u + 39.1597 \\ u^{13} + 12u^{12} + \cdots + 546u + 88 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.941176u^{13} - 10.2941u^{12} + \cdots - 506.824u - 85.7059 \\ u^{13} + 11u^{12} + \cdots + 620u + 112 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -2u^{12} - 21u^{11} - 117u^{10} - 440u^9 - 1225u^8 - 2638u^7 - 4481u^6 - 6034u^5 - 6384u^4 - 5178u^3 - 3060u^2 - 1183u - 227$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{14} - 4u^{13} + \cdots - 5u + 1$
c_2	$u^{14} - 2u^{13} + \cdots - u + 1$
c_3, c_{11}	$u^{14} - u^{12} - u^{11} + 4u^{10} + u^9 - 3u^7 + 3u^6 + 3u^4 - u^3 + u^2 - u + 1$
c_4, c_{12}	$u^{14} - u^{13} + u^{12} - u^{11} + 3u^{10} + 3u^8 - 3u^7 + u^5 + 4u^4 - u^3 - u^2 + 1$
c_6	$u^{14} + 2u^{13} + \cdots + u + 1$
c_7	$u^{14} + 4u^{13} + \cdots + 5u + 1$
c_8, c_{10}	$u^{14} - 2u^{13} + \cdots + u + 1$
c_9	$u^{14} + 12u^{13} + \cdots + 753u + 119$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5, c_7	$y^{14} + 16y^{13} + \cdots + 19y + 1$
c_2, c_6	$y^{14} - 4y^{13} + \cdots - 5y + 1$
c_3, c_{11}	$y^{14} - 2y^{13} + \cdots + y + 1$
c_4, c_{12}	$y^{14} + y^{13} + \cdots - 2y + 1$
c_8, c_{10}	$y^{14} + 14y^{13} + \cdots + 9y + 1$
c_9	$y^{14} + 4y^{13} + \cdots + 4191y + 14161$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.898365 + 0.466164I$ $a = 0.274587 + 0.624794I$ $b = -1.12748 + 0.90814I$	$-0.807946 - 1.069820I$	$-0.115639 - 0.754165I$
$u = -0.898365 - 0.466164I$ $a = 0.274587 - 0.624794I$ $b = -1.12748 - 0.90814I$	$-0.807946 + 1.069820I$	$-0.115639 + 0.754165I$
$u = -0.522055 + 1.037080I$ $a = -0.094737 + 0.915476I$ $b = -0.788118 + 0.504575I$	$-0.10349 - 6.22523I$	$-5.98500 + 10.70028I$
$u = -0.522055 - 1.037080I$ $a = -0.094737 - 0.915476I$ $b = -0.788118 - 0.504575I$	$-0.10349 + 6.22523I$	$-5.98500 - 10.70028I$
$u = -1.17778 + 0.86403I$ $a = -0.032784 - 0.642146I$ $b = 0.672741 - 0.825252I$	$1.12503 - 4.25284I$	$-2.67238 + 7.72503I$
$u = -1.17778 - 0.86403I$ $a = -0.032784 + 0.642146I$ $b = 0.672741 + 0.825252I$	$1.12503 + 4.25284I$	$-2.67238 - 7.72503I$
$u = -0.89755 + 1.20623I$ $a = 0.075475 - 0.727886I$ $b = 0.669316 - 0.614876I$	$1.06641 - 2.99350I$	$-1.88418 + 3.44945I$
$u = -0.89755 - 1.20623I$ $a = 0.075475 + 0.727886I$ $b = 0.669316 + 0.614876I$	$1.06641 + 2.99350I$	$-1.88418 - 3.44945I$
$u = -0.39747 + 1.53501I$ $a = -0.273895 + 0.762140I$ $b = -0.643425 + 0.438659I$	$7.82970 - 9.13196I$	$-0.21746 + 9.07167I$
$u = -0.39747 - 1.53501I$ $a = -0.273895 - 0.762140I$ $b = -0.643425 - 0.438659I$	$7.82970 + 9.13196I$	$-0.21746 - 9.07167I$

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.62637 + 0.08568I$ $a = -0.007488 - 0.488153I$ $b = 0.085422 - 1.254780I$	$9.17104 - 3.40642I$	$0.11216 + 4.03009I$
$u = -1.62637 - 0.08568I$ $a = -0.007488 + 0.488153I$ $b = 0.085422 + 1.254780I$	$9.17104 + 3.40642I$	$0.11216 - 4.03009I$
$u = -0.48042 + 1.56468I$ $a = 0.252119 - 0.742861I$ $b = 0.631541 - 0.455736I$	$8.03821 - 2.69363I$	$0.26249 + 4.46966I$
$u = -0.48042 - 1.56468I$ $a = 0.252119 + 0.742861I$ $b = 0.631541 + 0.455736I$	$8.03821 + 2.69363I$	$0.26249 - 4.46966I$

IV. $\boldsymbol{I_1^v = \langle a,\ 6v^5 - 52v^4 + \cdots + b - 20,\ v^6 - 9v^5 + 29v^4 - 41v^3 + 29v^2 - 9v + 1\rangle}$

(i) Arc colorings

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} v \\ 0 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0 \\ -6v^5 + 52v^4 - 157v^3 + 196v^2 - 114v + 20 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 6v^5 - 52v^4 + 157v^3 - 196v^2 + 114v - 20 \\ -6v^5 + 52v^4 - 157v^3 + 196v^2 - 114v + 20 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} v - 1 \\ 1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 0 \\ -6v^5 + 52v^4 - 157v^3 + 196v^2 - 114v + 20 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} v - 1 \\ -v^5 + 9v^4 - 29v^3 + 41v^2 - 29v + 9 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} v \\ 1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -v + 1 \\ -1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 3v^5 - 26v^4 + 79v^3 - 100v^2 + 58v - 10 \\ -10v^5 + 87v^4 - 264v^3 + 332v^2 - 194v + 34 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} v^5 - 9v^4 + 29v^3 - 40v^2 + 25v - 5 \\ -2v^5 + 18v^4 - 58v^3 + 82v^2 - 57v + 14 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 21v^5 - 184v^4 + 564v^3 - 721v^2 + 428v - 94$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5, c_7	$(y^3 + 3y^2 + 2y - 1)^2$
c_2, c_6	$(y^3 - y^2 + 2y - 1)^2$
c_3, c_4, c_{11} c_{12}	$y^6 + 9y^5 + 29y^4 + 41y^3 + 29y^2 + 9y + 1$
c_8, c_{10}	$(y - 1)^6$
c_9	y^6

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$v = 0.837641 + 0.546221I$ $a = 0$ $b = -0.284920 - 0.958551I$	-2.75839	$-13.82608 + 0.I$
$v = 0.837641 - 0.546221I$ $a = 0$ $b = -0.284920 + 0.958551I$	-2.75839	$-13.82608 + 0.I$
$v = 0.286741 + 0.052196I$ $a = 0$ $b = -0.16654 - 1.84482I$	$1.37919 - 2.82812I$	$-17.5870 + 7.0980I$
$v = 0.286741 - 0.052196I$ $a = 0$ $b = -0.16654 + 1.84482I$	$1.37919 + 2.82812I$	$-17.5870 - 7.0980I$
$v = 3.37562 + 0.61448I$ $a = 0$ $b = -0.048539 - 0.537677I$	$1.37919 + 2.82812I$	$-17.5870 - 7.0980I$
$v = 3.37562 - 0.61448I$ $a = 0$ $b = -0.048539 + 0.537677I$	$1.37919 - 2.82812I$	$-17.5870 + 7.0980I$

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_5	$((u^3-u^2+2u-1)^2)(u^{14}-4u^{13}+\cdots-5u+1)$ $\cdot((u^{35}+8u^{34}+\cdots+6u+1)^2)(u^{47}+11u^{46}+\cdots+129u+16)$
c_2	$((u^3+u^2-1)^2)(u^{14}-2u^{13}+\cdots-u+1)(u^{35}+2u^{34}+\cdots-2u+1)^2$ $\cdot(u^{47}-5u^{46}+\cdots+5u+4)$
c_3, c_{11}	$(u^6-u^5+5u^4-3u^3+5u^2-u+1)$ $\cdot(u^{14}-u^{12}-u^{11}+4u^{10}+u^9-3u^7+3u^6+3u^4-u^3+u^2-u+1)$ $\cdot(u^{47}+9u^{45}+\cdots-6u+1)(u^{70}+2u^{69}+\cdots-10925u+8375)$
c_4, c_{12}	$(u^6-u^5+5u^4-3u^3+5u^2-u+1)$ $\cdot(u^{14}-u^{13}+u^{12}-u^{11}+3u^{10}+3u^8-3u^7+u^5+4u^4-u^3-u^2+1)$ $\cdot(u^{47}+3u^{46}+\cdots+3u+1)(u^{70}+4u^{69}+\cdots+9u+1)$
c_6	$((u^3-u^2+1)^2)(u^{14}+2u^{13}+\cdots+u+1)(u^{35}+2u^{34}+\cdots-2u+1)^2$ $\cdot(u^{47}-5u^{46}+\cdots+5u+4)$
c_7	$((u^3+u^2+2u+1)^2)(u^{14}+4u^{13}+\cdots+5u+1)$ $\cdot((u^{35}+8u^{34}+\cdots+6u+1)^2)(u^{47}+11u^{46}+\cdots+129u+16)$
c_8, c_{10}	$((u-1)^6)(u^{14}-2u^{13}+\cdots+u+1)(u^{47}+8u^{46}+\cdots+14u-1)$ $\cdot(u^{70}-7u^{69}+\cdots-1398u+103)$
c_9	$u^6(u^{14}+12u^{13}+\cdots+753u+119)(u^{35}-17u^{34}+\cdots-36u+8)^2$ $\cdot(u^{47}+25u^{46}+\cdots+9u+2)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5, c_7	$((y^3+3y^2+2y-1)^2)(y^{14}+16y^{13}+\cdots+19y+1)$ $\cdot((y^{35}+40y^{34}+\cdots-6y-1)^2)(y^{47}+53y^{46}+\cdots-12319y-256)$
c_2, c_6	$((y^3-y^2+2y-1)^2)(y^{14}-4y^{13}+\cdots-5y+1)$ $\cdot((y^{35}-8y^{34}+\cdots+6y-1)^2)(y^{47}-11y^{46}+\cdots+129y-16)$
c_3, c_{11}	$(y^6+9y^5+\cdots+9y+1)(y^{14}-2y^{13}+\cdots+y+1)$ $\cdot(y^{47}+18y^{46}+\cdots+24y-1)$ $\cdot(y^{70}+20y^{69}+\cdots+3013313125y+70140625)$
c_4, c_{12}	$(y^6+9y^5+\cdots+9y+1)(y^{14}+y^{13}+\cdots-2y+1)$ $\cdot(y^{47}+29y^{46}+\cdots-53y-1)(y^{70}-8y^{69}+\cdots+13y+1)$
c_8, c_{10}	$((y-1)^6)(y^{14}+14y^{13}+\cdots+9y+1)(y^{47}-6y^{46}+\cdots+316y-1)$ $\cdot(y^{70}+33y^{69}+\cdots+275134y+10609)$
c_9	$y^6(y^{14}+4y^{13}+\cdots+4191y+14161)$ $\cdot((y^{35}-7y^{34}+\cdots+1424y-64)^2)(y^{47}-3y^{46}+\cdots+109y-4)$