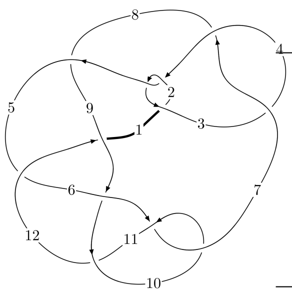
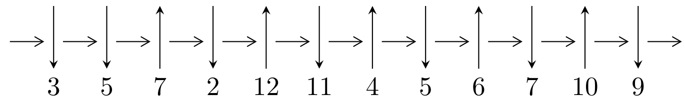
$12n_{0152}$ ($K12n_{0152}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{42} - u^{41} + \cdots - u^3 + b,\ -u^{42} + u^{41} + \cdots + a - 1,\ u^{44} - 2u^{43} + \cdots - 2u + 1\rangle$$
$$I_2^u = \langle b + u,\ -u^3 + a - u + 1,\ u^4 + u^2 - u + 1\rangle$$
$$I_3^u = \langle -u^5 - u^4 - 2u^3 - 2u^2 + b - 2u - 1,\ u^4 + u^2 + a,\ u^6 + u^5 + 2u^4 + 2u^3 + 2u^2 + 2u + 1\rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 54 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.

$$\boldsymbol{I_1^u = \langle u^{42} - u^{41} + \cdots - u^3 + b,\ -u^{42} + u^{41} + \cdots + a - 1,\ u^{44} - 2u^{43} + \cdots - 2u + 1\rangle}$$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^{42} - u^{41} + \cdots + 4u^3 + 1 \\ -u^{42} + u^{41} + \cdots - 5u^4 + u^3 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^{43} + 3u^{42} + \cdots - 2u + 2 \\ u^{43} - 3u^{42} + \cdots - u^2 + u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^8 + u^6 + u^4 + 1 \\ u^{10} + 2u^8 + 3u^6 + 2u^4 + u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^{39} - u^{38} + \cdots + u + 1 \\ u^{41} - u^{40} + \cdots + u^3 + u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^3 \\ u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^{11} - 2u^9 - 2u^7 + u^3 \\ u^{11} + 3u^9 + 4u^7 + 3u^5 + u^3 + u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^{21} + 4u^{19} + 9u^{17} + 12u^{15} + 12u^{13} + 10u^{11} + 9u^9 + 6u^7 + 3u^5 + u \\ u^{23} + 5u^{21} + \cdots + 2u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u^{43} - 8u^{42} + \cdots + 11u - 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{44} + 5u^{43} + \cdots + 5u + 1$
c_2, c_4	$u^{44} - 11u^{43} + \cdots - 9u + 1$
c_3, c_7	$u^{44} - u^{43} + \cdots - 2048u + 1024$
c_5	$u^{44} + 10u^{43} + \cdots + 510u + 61$
c_6, c_{10}	$u^{44} + 2u^{43} + \cdots + 2u + 1$
c_8	$u^{44} + 2u^{43} + \cdots - 12568908u + 4045417$
c_9	$u^{44} - 2u^{43} + \cdots - 48u + 72$
c_{11}	$u^{44} - 22u^{43} + \cdots - 2u + 1$
c_{12}	$u^{44} - 2u^{43} + \cdots - 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{44} + 79y^{43} + \cdots + 63y + 1$
c_2, c_4	$y^{44} - 5y^{43} + \cdots - 5y + 1$
c_3, c_7	$y^{44} - 63y^{43} + \cdots - 17301504y + 1048576$
c_5	$y^{44} - 10y^{43} + \cdots + 42582y + 3721$
c_6, c_{10}	$y^{44} + 22y^{43} + \cdots + 2y + 1$
c_8	$y^{44} + 118y^{43} + \cdots + 59158715268238y + 16365398703889$
c_9	$y^{44} - 18y^{43} + \cdots - 39312y + 5184$
c_{11}	$y^{44} + 2y^{43} + \cdots + 22y + 1$
c_{12}	$y^{44} + 58y^{43} + \cdots + 2y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.650835 + 0.753787I$ $a = 0.08846 - 1.78587I$ $b = 0.081004 + 0.538151I$	$7.53342 + 6.30806I$	$-1.89413 - 5.29683I$
$u = -0.650835 - 0.753787I$ $a = 0.08846 + 1.78587I$ $b = 0.081004 - 0.538151I$	$7.53342 - 6.30806I$	$-1.89413 + 5.29683I$
$u = -0.632673 + 0.802636I$ $a = 0.267451 + 1.071980I$ $b = -0.836036 - 0.256227I$	$7.68178 - 1.36168I$	$-1.47660 - 0.85903I$
$u = -0.632673 - 0.802636I$ $a = 0.267451 - 1.071980I$ $b = -0.836036 + 0.256227I$	$7.68178 + 1.36168I$	$-1.47660 + 0.85903I$
$u = 0.524889 + 0.986478I$ $a = 0.205755 - 0.498882I$ $b = -0.239518 + 0.643052I$	$-0.15574 - 2.57093I$	$0.70156 + 2.32156I$
$u = 0.524889 - 0.986478I$ $a = 0.205755 + 0.498882I$ $b = -0.239518 - 0.643052I$	$-0.15574 + 2.57093I$	$0.70156 - 2.32156I$
$u = -0.238245 + 1.098530I$ $a = -1.052800 - 0.393118I$ $b = 0.056688 + 0.785185I$	$4.15035 - 1.19914I$	$5.43856 + 1.99279I$
$u = -0.238245 - 1.098530I$ $a = -1.052800 + 0.393118I$ $b = 0.056688 - 0.785185I$	$4.15035 + 1.19914I$	$5.43856 - 1.99279I$
$u = 0.401111 + 1.053070I$ $a = -0.924275 - 0.254329I$ $b = 0.940261 + 0.336917I$	$1.12314 - 1.53132I$	$0.534904 + 0.918296I$
$u = 0.401111 - 1.053070I$ $a = -0.924275 + 0.254329I$ $b = 0.940261 - 0.336917I$	$1.12314 + 1.53132I$	$0.534904 - 0.918296I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.806426 + 0.270607I$ $a = 0.528240 - 1.204320I$ $b = 2.74166 + 0.03423I$	$10.03900 + 8.32938I$	$-1.08270 - 4.13842I$
$u = 0.806426 - 0.270607I$ $a = 0.528240 + 1.204320I$ $b = 2.74166 - 0.03423I$	$10.03900 - 8.32938I$	$-1.08270 + 4.13842I$
$u = 0.605593 + 0.584352I$ $a = -0.793404 + 0.445925I$ $b = 0.360026 - 0.418150I$	$-1.33551 - 1.91461I$	$-1.93635 + 4.43568I$
$u = 0.605593 - 0.584352I$ $a = -0.793404 - 0.445925I$ $b = 0.360026 + 0.418150I$	$-1.33551 + 1.91461I$	$-1.93635 - 4.43568I$
$u = -0.470021 + 1.059020I$ $a = -2.48227 + 1.10683I$ $b = 2.56335 + 1.29163I$	$-0.51801 + 3.33956I$	$1.74785 - 5.30450I$
$u = -0.470021 - 1.059020I$ $a = -2.48227 - 1.10683I$ $b = 2.56335 - 1.29163I$	$-0.51801 - 3.33956I$	$1.74785 + 5.30450I$
$u = 0.801520 + 0.234624I$ $a = -0.402454 + 0.655071I$ $b = -2.50289 + 0.41075I$	$10.56280 + 0.28731I$	$-0.340463 + 0.065100I$
$u = 0.801520 - 0.234624I$ $a = -0.402454 - 0.655071I$ $b = -2.50289 - 0.41075I$	$10.56280 - 0.28731I$	$-0.340463 - 0.065100I$
$u = -0.344708 + 1.132750I$ $a = 1.04475 - 1.24375I$ $b = -1.275840 - 0.094053I$	$5.34462 + 1.30032I$	$5.86228 - 1.34664I$
$u = -0.344708 - 1.132750I$ $a = 1.04475 + 1.24375I$ $b = -1.275840 + 0.094053I$	$5.34462 - 1.30032I$	$5.86228 + 1.34664I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.727737 + 0.345386I$ $a = -0.556447 + 0.549889I$ $b = 0.899472 + 0.608886I$	$-0.21118 - 3.75271I$	$-0.89242 + 4.60335I$
$u = -0.727737 - 0.345386I$ $a = -0.556447 - 0.549889I$ $b = 0.899472 - 0.608886I$	$-0.21118 + 3.75271I$	$-0.89242 - 4.60335I$
$u = 0.499458 + 1.093510I$ $a = 0.163389 - 0.118925I$ $b = -0.476367 - 0.549957I$	$0.35556 - 5.50410I$	$-0.95894 + 5.50541I$
$u = 0.499458 - 1.093510I$ $a = 0.163389 + 0.118925I$ $b = -0.476367 + 0.549957I$	$0.35556 + 5.50410I$	$-0.95894 - 5.50541I$
$u = 0.394783 + 0.687947I$ $a = -0.636590 - 0.714238I$ $b = 0.329853 + 0.582166I$	$-0.07264 - 1.54976I$	$-0.86288 + 5.32741I$
$u = 0.394783 - 0.687947I$ $a = -0.636590 + 0.714238I$ $b = 0.329853 - 0.582166I$	$-0.07264 + 1.54976I$	$-0.86288 - 5.32741I$
$u = 0.271461 + 1.191670I$ $a = -2.91510 - 0.51878I$ $b = 2.28357 - 1.65853I$	$14.6335 + 5.0175I$	$4.32906 - 1.77222I$
$u = 0.271461 - 1.191670I$ $a = -2.91510 + 0.51878I$ $b = 2.28357 + 1.65853I$	$14.6335 - 5.0175I$	$4.32906 + 1.77222I$
$u = 0.299244 + 1.194400I$ $a = 3.17931 + 0.29031I$ $b = -2.39631 + 1.63518I$	$14.9926 - 3.1935I$	$4.68937 + 2.57372I$
$u = 0.299244 - 1.194400I$ $a = 3.17931 - 0.29031I$ $b = -2.39631 - 1.63518I$	$14.9926 + 3.1935I$	$4.68937 - 2.57372I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.561031 + 1.111280I$ $a = -0.12864 + 1.49829I$ $b = 1.09429 - 1.16042I$	$2.02214 + 8.66027I$	$0. - 8.67025I$
$u = -0.561031 - 1.111280I$ $a = -0.12864 - 1.49829I$ $b = 1.09429 + 1.16042I$	$2.02214 - 8.66027I$	$0. + 8.67025I$
$u = -0.514177 + 1.135410I$ $a = 2.03093 - 0.39666I$ $b = -1.75747 - 1.02929I$	$4.18522 + 6.56824I$	$3.58280 - 6.10314I$
$u = -0.514177 - 1.135410I$ $a = 2.03093 + 0.39666I$ $b = -1.75747 + 1.02929I$	$4.18522 - 6.56824I$	$3.58280 + 6.10314I$
$u = -0.690430 + 0.212080I$ $a = -0.519384 - 0.455199I$ $b = -1.075590 + 0.770658I$	$1.55771 - 1.98048I$	$0.55925 + 2.67881I$
$u = -0.690430 - 0.212080I$ $a = -0.519384 + 0.455199I$ $b = -1.075590 - 0.770658I$	$1.55771 + 1.98048I$	$0.55925 - 2.67881I$
$u = 0.559852 + 1.158950I$ $a = -2.47252 - 2.48487I$ $b = 3.85040 - 0.10977I$	$12.6669 - 13.4080I$	$0. + 7.64627I$
$u = 0.559852 - 1.158950I$ $a = -2.47252 + 2.48487I$ $b = 3.85040 + 0.10977I$	$12.6669 + 13.4080I$	$0. - 7.64627I$
$u = 0.544747 + 1.166240I$ $a = 1.89623 + 2.56346I$ $b = -3.21064 - 0.17517I$	$13.3130 - 5.2801I$	0
$u = 0.544747 - 1.166240I$ $a = 1.89623 - 2.56346I$ $b = -3.21064 + 0.17517I$	$13.3130 + 5.2801I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.433758 + 0.454843I$ $a = 1.52940 + 1.29138I$ $b = 1.02671 - 0.97590I$	$-2.34698 + 0.55015I$	$-4.01438 + 2.82078I$
$u = -0.433758 - 0.454843I$ $a = 1.52940 - 1.29138I$ $b = 1.02671 + 0.97590I$	$-2.34698 - 0.55015I$	$-4.01438 - 2.82078I$
$u = 0.554531 + 0.293565I$ $a = 0.44996 + 1.43424I$ $b = 0.043378 - 0.204320I$	$-1.89085 + 1.22646I$	$-5.83511 - 0.82987I$
$u = 0.554531 - 0.293565I$ $a = 0.44996 - 1.43424I$ $b = 0.043378 + 0.204320I$	$-1.89085 - 1.22646I$	$-5.83511 + 0.82987I$

II. $\boldsymbol{I_2^u = \langle b + u,\ -u^3 + a - u + 1,\ u^4 + u^2 - u + 1 \rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^3 + u - 1 \\ -u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^3 + u - 1 \\ -u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u^3 \\ u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u^3 + u^2 - u + 1 \\ -u^2 + u - 1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 2u^3 - u^2 + 2u - 2 \\ u^2 - 2u + 1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^3 \\ u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^3 - u^2 + u - 1 \\ u^2 - u + 1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 5u^3 + 4u^2 + u - 6$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4	$(y-1)^4$
c_3, c_7	y^4
c_5, c_{11}	$y^4 + 2y^3 + 7y^2 + 5y + 1$
c_6, c_8, c_{10} c_{12}	$y^4 + 2y^3 + 3y^2 + y + 1$
c_9	$y^4 - y^3 + 2y^2 + 7y + 4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.547424 + 0.585652I$ $a = -0.851808 + 0.911292I$ $b = -0.547424 - 0.585652I$	$-2.62503 - 1.39709I$	$-7.62200 + 4.77865I$
$u = 0.547424 - 0.585652I$ $a = -0.851808 - 0.911292I$ $b = -0.547424 + 0.585652I$	$-2.62503 + 1.39709I$	$-7.62200 - 4.77865I$
$u = -0.547424 + 1.120870I$ $a = 0.351808 + 0.720342I$ $b = 0.547424 - 1.120870I$	$0.98010 + 7.64338I$	$-0.87800 - 5.79053I$
$u = -0.547424 - 1.120870I$ $a = 0.351808 - 0.720342I$ $b = 0.547424 + 1.120870I$	$0.98010 - 7.64338I$	$-0.87800 + 5.79053I$

III. $\boldsymbol{I^u_3 =}$
$\boldsymbol{\langle -u^5-u^4-2u^3-2u^2+b-2u-1,\ u^4+u^2+a,\ u^6+u^5+2u^4+2u^3+2u^2+2u+1\rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^4-u^2 \\ u^5+u^4+2u^3+2u^2+2u+1 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^4-u^2 \\ u^5+u^4+2u^3+2u^2+2u+1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u \\ u^3+u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u^3 \\ u^5+u^3+u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^4+u^2+u+1 \\ -2u^5-u^4-3u^3-2u^2-3u-2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -2u^4-2u^2-u-1 \\ 3u^5+2u^4+5u^3+4u^2+5u+3 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^3 \\ u^3+u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^4-u^2-u-1 \\ 2u^5+u^4+3u^3+2u^2+3u+2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= u^4+5u^3+u^2+4u-1$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.498832 + 1.001300I$ $a = 1.183530 + 0.507021I$ $b = -1.39861 + 0.80012I$	$-1.37919 - 2.82812I$	$-7.06955 + 2.21599I$
$u = 0.498832 - 1.001300I$ $a = 1.183530 - 0.507021I$ $b = -1.39861 - 0.80012I$	$-1.37919 + 2.82812I$	$-7.06955 - 2.21599I$
$u = -0.284920 + 1.115140I$ $a = 0.215080 - 0.841795I$ $b = -0.784920 + 0.841795I$	2.75839	$2.84423 - 0.27335I$
$u = -0.284920 - 1.115140I$ $a = 0.215080 + 0.841795I$ $b = -0.784920 - 0.841795I$	2.75839	$2.84423 + 0.27335I$
$u = -0.713912 + 0.305839I$ $a = -0.398606 + 0.800120I$ $b = 0.183526 + 0.507021I$	$-1.37919 - 2.82812I$	$-4.27468 + 2.61835I$
$u = -0.713912 - 0.305839I$ $a = -0.398606 - 0.800120I$ $b = 0.183526 - 0.507021I$	$-1.37919 + 2.82812I$	$-4.27468 - 2.61835I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^{10})(u^{44}+5u^{43}+\cdots+5u+1)$
c_2	$((u-1)^{10})(u^{44}-11u^{43}+\cdots-9u+1)$
c_3, c_7	$u^{10}(u^{44}-u^{43}+\cdots-2048u+1024)$
c_4	$((u+1)^{10})(u^{44}-11u^{43}+\cdots-9u+1)$
c_5	$(u^4+2u^3+3u^2+u+1)(u^6+3u^5+4u^4+2u^3+1)$ $\cdot(u^{44}+10u^{43}+\cdots+510u+61)$
c_6	$(u^4+u^2-u+1)(u^6+u^5+2u^4+2u^3+2u^2+2u+1)$ $\cdot(u^{44}+2u^{43}+\cdots+2u+1)$
c_8	$(u^4+u^2+u+1)(u^6-u^5+2u^4-2u^3+2u^2-2u+1)$ $\cdot(u^{44}+2u^{43}+\cdots-12568908u+4045417)$
c_9	$((u^3-u^2+1)^2)(u^4+3u^3+\cdots+3u+2)(u^{44}-2u^{43}+\cdots-48u+72)$
c_{10}	$(u^4+u^2+u+1)(u^6-u^5+2u^4-2u^3+2u^2-2u+1)$ $\cdot(u^{44}+2u^{43}+\cdots+2u+1)$
c_{11}	$(u^4-2u^3+3u^2-u+1)(u^6-3u^5+4u^4-2u^3+1)$ $\cdot(u^{44}-22u^{43}+\cdots-2u+1)$
c_{12}	$(u^4+u^2+u+1)(u^6-u^5+2u^4-2u^3+2u^2-2u+1)$ $\cdot(u^{44}-2u^{43}+\cdots-2u+1)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^{10})(y^{44}+79y^{43}+\cdots+63y+1)$
c_2, c_4	$((y-1)^{10})(y^{44}-5y^{43}+\cdots-5y+1)$
c_3, c_7	$y^{10}(y^{44}-63y^{43}+\cdots-1.73015\times 10^7 y+1048576)$
c_5	$(y^4+2y^3+7y^2+5y+1)(y^6-y^5+4y^4-2y^3+8y^2+1)$ $\cdot(y^{44}-10y^{43}+\cdots+42582y+3721)$
c_6, c_{10}	$(y^4+2y^3+3y^2+y+1)(y^6+3y^5+4y^4+2y^3+1)$ $\cdot(y^{44}+22y^{43}+\cdots+2y+1)$
c_8	$(y^4+2y^3+3y^2+y+1)(y^6+3y^5+4y^4+2y^3+1)$ $\cdot(y^{44}+118y^{43}+\cdots+59158715268238y+16365398703889)$
c_9	$(y^3-y^2+2y-1)^2(y^4-y^3+2y^2+7y+4)$ $\cdot(y^{44}-18y^{43}+\cdots-39312y+5184)$
c_{11}	$(y^4+2y^3+7y^2+5y+1)(y^6-y^5+4y^4-2y^3+8y^2+1)$ $\cdot(y^{44}+2y^{43}+\cdots+22y+1)$
c_{12}	$(y^4+2y^3+3y^2+y+1)(y^6+3y^5+4y^4+2y^3+1)$ $\cdot(y^{44}+58y^{43}+\cdots+2y+1)$