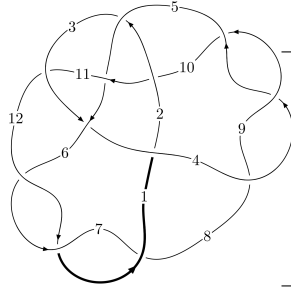
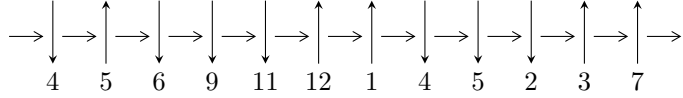


12n₀₇₀₉ (K12n₀₇₀₉)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle 4.82508 \times 10^{67} u^{41} - 8.04373 \times 10^{66} u^{40} + \dots + 3.17613 \times 10^{68} b + 7.49719 \times 10^{68}, \\ 7.68981 \times 10^{68} u^{41} + 6.83382 \times 10^{67} u^{40} + \dots + 3.17613 \times 10^{68} a + 4.36130 \times 10^{69}, u^{42} - 5u^{40} + \dots + 12u - \\ I_2^u = \langle 2u^{11} + 2u^{10} - 9u^9 - 9u^8 + 17u^7 + 11u^6 - 20u^5 - 5u^4 + 14u^3 + 5u^2 + b - 3u, \\ 3u^{11} + 4u^{10} - 13u^9 - 19u^8 + 23u^7 + 30u^6 - 27u^5 - 26u^4 + 21u^3 + 22u^2 + a - 5u - 6, \\ u^{12} + u^{11} - 5u^{10} - 5u^9 + 11u^8 + 8u^7 - 15u^6 - 6u^5 + 13u^4 + 4u^3 - 6u^2 - u + 1 \rangle$$

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

¹The 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>).

²All coefficients of polynomials are rational numbers. But the coefficients are sometimes approximated in decimal forms when there is not enough margin.

$$\mathbf{I. } I_1^u = \langle 4.83 \times 10^{67} u^{41} - 8.04 \times 10^{66} u^{40} + \dots + 3.18 \times 10^{68} b + 7.50 \times 10^{68}, 7.69 \times 10^{68} u^{41} + 6.83 \times 10^{67} u^{40} + \dots + 3.18 \times 10^{68} a + 4.36 \times 10^{69}, u^{42} - 5u^{40} + \dots + 12u - 1 \rangle$$

(i) Arc colorings

$$\begin{aligned} a_5 &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_{11} &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_3 &= \begin{pmatrix} -2.42113u^{41} - 0.215162u^{40} + \dots + 47.7375u - 13.7315 \\ -0.151917u^{41} + 0.0253256u^{40} + \dots + 4.43664u - 2.36048 \end{pmatrix} \\ a_6 &= \begin{pmatrix} 1 \\ u^2 \end{pmatrix} \\ a_{12} &= \begin{pmatrix} 1.40883u^{41} - 0.283645u^{40} + \dots - 31.6002u + 11.3295 \\ 0.451792u^{41} - 0.229337u^{40} + \dots + 0.897332u + 1.83430 \end{pmatrix} \\ a_7 &= \begin{pmatrix} -1.66145u^{41} - 0.892224u^{40} + \dots + 72.0897u - 18.1638 \\ 0.208120u^{41} - 0.395827u^{40} + \dots + 17.3792u - 4.31286 \end{pmatrix} \\ a_2 &= \begin{pmatrix} -2.26921u^{41} - 0.240488u^{40} + \dots + 43.3008u - 11.3710 \\ -0.151917u^{41} + 0.0253256u^{40} + \dots + 4.43664u - 2.36048 \end{pmatrix} \\ a_{10} &= \begin{pmatrix} 0.699121u^{41} - 0.0570474u^{40} + \dots - 24.8728u + 7.43404 \\ 0.257913u^{41} + 0.00273987u^{40} + \dots - 5.62471u + 2.06112 \end{pmatrix} \\ a_9 &= \begin{pmatrix} 0.957035u^{41} - 0.0543075u^{40} + \dots - 30.4975u + 9.49516 \\ 0.257913u^{41} + 0.00273987u^{40} + \dots - 5.62471u + 2.06112 \end{pmatrix} \\ a_4 &= \begin{pmatrix} -2.53284u^{41} - 0.147464u^{40} + \dots + 43.4617u - 11.5862 \\ -0.325011u^{41} + 0.129277u^{40} + \dots + 3.51256u - 2.29278 \end{pmatrix} \\ a_1 &= \begin{pmatrix} -2.13070u^{41} - 0.169775u^{40} + \dots + 38.9427u - 12.7081 \\ -0.812419u^{41} + 0.186428u^{40} + \dots + 8.64257u - 3.43916 \end{pmatrix} \\ a_8 &= \begin{pmatrix} -0.374567u^{41} + 0.0574880u^{40} + \dots + 18.7871u + 0.721860 \\ 0.269350u^{41} + 0.303079u^{40} + \dots - 12.4553u + 2.13098 \end{pmatrix} \end{aligned}$$

(ii) Obstruction class = -1

$$\text{(iii) Cusp Shapes} = 0.117845u^{41} - 0.341047u^{40} + \dots - 3.69676u + 5.23841$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{42} - 2u^{41} + \dots + 7155u + 1759$
c_2	$u^{42} - 20u^{40} + \dots - 4u + 1$
c_3	$u^{42} - 3u^{40} + \dots + 36u - 7$
c_4, c_8, c_9	$u^{42} - u^{41} + \dots + 125u - 43$
c_5	$u^{42} - 5u^{40} + \dots + 12u - 1$
c_6, c_7, c_{12}	$u^{42} - 2u^{41} + \dots - 9u + 1$
c_{10}	$u^{42} + u^{41} + \dots + 17u + 1$
c_{11}	$u^{42} - 2u^{41} + \dots - 260u - 29$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{42} + 84y^{41} + \dots - 28548659y + 3094081$
c_2	$y^{42} - 40y^{41} + \dots - 132y + 1$
c_3	$y^{42} - 6y^{41} + \dots - 246y + 49$
c_4, c_8, c_9	$y^{42} + 5y^{41} + \dots + 3123y + 1849$
c_5	$y^{42} - 10y^{41} + \dots - 102y + 1$
c_6, c_7, c_{12}	$y^{42} - 56y^{41} + \dots - 185y + 1$
c_{10}	$y^{42} + 41y^{41} + \dots - 193y + 1$
c_{11}	$y^{42} - 26y^{41} + \dots - 54028y + 841$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.826491 + 0.442043I$ $a = 0.44718 + 1.76659I$ $b = 0.70153 + 1.70890I$	$7.45710 + 5.86314I$	$-2.65176 - 8.52020I$
$u = -0.826491 - 0.442043I$ $a = 0.44718 - 1.76659I$ $b = 0.70153 - 1.70890I$	$7.45710 - 5.86314I$	$-2.65176 + 8.52020I$
$u = -0.922502$ $a = -1.78773$ $b = -0.148859$	-1.70873	-6.53080
$u = 0.242616 + 0.880583I$ $a = 0.16751 + 1.61694I$ $b = 0.219203 - 0.132487I$	$10.17820 - 3.58420I$	$3.84598 + 2.12866I$
$u = 0.242616 - 0.880583I$ $a = 0.16751 - 1.61694I$ $b = 0.219203 + 0.132487I$	$10.17820 + 3.58420I$	$3.84598 - 2.12866I$
$u = 0.890844 + 0.643047I$ $a = 0.563817 - 1.208620I$ $b = 1.35559 - 0.46608I$	$2.11218 - 2.53038I$	$6.12123 + 0.14610I$
$u = 0.890844 - 0.643047I$ $a = 0.563817 + 1.208620I$ $b = 1.35559 + 0.46608I$	$2.11218 + 2.53038I$	$6.12123 - 0.14610I$
$u = -0.876142$ $a = 0.172308$ $b = -1.12353$	-2.38946	-2.90900
$u = 0.721992 + 0.460484I$ $a = 0.164016 - 1.355880I$ $b = 0.239818 - 1.211100I$	$-0.02917 - 3.92711I$	$-3.97147 + 9.92723I$
$u = 0.721992 - 0.460484I$ $a = 0.164016 + 1.355880I$ $b = 0.239818 + 1.211100I$	$-0.02917 + 3.92711I$	$-3.97147 - 9.92723I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.720687 + 0.899817I$ $a = 0.273465 + 0.765302I$ $b = 1.53565 + 0.40748I$	$5.72444 + 3.42674I$	$2.80097 - 3.58941I$
$u = -0.720687 - 0.899817I$ $a = 0.273465 - 0.765302I$ $b = 1.53565 - 0.40748I$	$5.72444 - 3.42674I$	$2.80097 + 3.58941I$
$u = -0.780727 + 0.131252I$ $a = 0.82386 + 2.32713I$ $b = 1.26635 + 0.92629I$	$7.74135 + 4.15125I$	$-0.41061 - 1.82266I$
$u = -0.780727 - 0.131252I$ $a = 0.82386 - 2.32713I$ $b = 1.26635 - 0.92629I$	$7.74135 - 4.15125I$	$-0.41061 + 1.82266I$
$u = -0.615064 + 0.357683I$ $a = 0.070719 + 0.713992I$ $b = -0.245314 + 0.610196I$	$-1.089030 + 0.732853I$	$-6.79767 - 2.20104I$
$u = -0.615064 - 0.357683I$ $a = 0.070719 - 0.713992I$ $b = -0.245314 - 0.610196I$	$-1.089030 - 0.732853I$	$-6.79767 + 2.20104I$
$u = 1.30953$ $a = -0.929642$ $b = -0.351451$	-6.86880	-18.9610
$u = -1.083940 + 0.809437I$ $a = 0.675081 + 1.062750I$ $b = 1.284690 + 0.182998I$	$4.64441 + 2.89183I$	$1.76368 - 2.87517I$
$u = -1.083940 - 0.809437I$ $a = 0.675081 - 1.062750I$ $b = 1.284690 - 0.182998I$	$4.64441 - 2.89183I$	$1.76368 + 2.87517I$
$u = 0.804703 + 1.139140I$ $a = 0.374165 - 0.503272I$ $b = 1.67797 - 0.36893I$	$15.2391 - 4.3076I$	$2.80868 + 2.57557I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.804703 - 1.139140I$ $a = 0.374165 + 0.503272I$ $b = 1.67797 + 0.36893I$	$15.2391 + 4.3076I$	$2.80868 - 2.57557I$
$u = 1.411490 + 0.009834I$ $a = -0.221337 + 0.166065I$ $b = -0.899307 - 0.199819I$	$5.57535 + 0.53866I$	$0. + 2.21094I$
$u = 1.411490 - 0.009834I$ $a = -0.221337 - 0.166065I$ $b = -0.899307 + 0.199819I$	$5.57535 - 0.53866I$	$0. - 2.21094I$
$u = -0.003662 + 0.550660I$ $a = 1.13441 - 1.56878I$ $b = 0.175353 - 0.047964I$	$1.34218 + 1.37911I$	$2.89590 - 0.80863I$
$u = -0.003662 - 0.550660I$ $a = 1.13441 + 1.56878I$ $b = 0.175353 + 0.047964I$	$1.34218 - 1.37911I$	$2.89590 + 0.80863I$
$u = -0.90754 + 1.17188I$ $a = 0.055593 - 0.788021I$ $b = -1.155080 - 0.321541I$	$1.72011 + 4.36399I$	0
$u = -0.90754 - 1.17188I$ $a = 0.055593 + 0.788021I$ $b = -1.155080 + 0.321541I$	$1.72011 - 4.36399I$	0
$u = 1.10237 + 1.02421I$ $a = -0.255654 + 1.035640I$ $b = -1.41241 + 0.50973I$	$4.99599 - 9.83709I$	0
$u = 1.10237 - 1.02421I$ $a = -0.255654 - 1.035640I$ $b = -1.41241 - 0.50973I$	$4.99599 + 9.83709I$	0
$u = -1.53577$ $a = -0.547612$ $b = -0.588263$	-4.41753	5.34160

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.02878 + 1.16133I$ $a = -0.276463 + 0.398264I$ $b = -1.234350 - 0.070649I$	$5.40084 + 1.95358I$	0
$u = 1.02878 - 1.16133I$ $a = -0.276463 - 0.398264I$ $b = -1.234350 + 0.070649I$	$5.40084 - 1.95358I$	0
$u = 1.24059 + 0.94227I$ $a = 0.677354 - 0.959216I$ $b = 1.305130 - 0.002881I$	$13.8696 - 3.3208I$	0
$u = 1.24059 - 0.94227I$ $a = 0.677354 + 0.959216I$ $b = 1.305130 + 0.002881I$	$13.8696 + 3.3208I$	0
$u = -0.81469 + 1.33843I$ $a = -0.401599 - 0.501693I$ $b = -1.42135 + 0.14198I$	$15.8064 - 4.9457I$	0
$u = -0.81469 - 1.33843I$ $a = -0.401599 + 0.501693I$ $b = -1.42135 - 0.14198I$	$15.8064 + 4.9457I$	0
$u = -1.25187 + 0.99541I$ $a = -0.477673 - 1.039360I$ $b = -1.61618 - 0.53409I$	$14.3267 + 13.2133I$	0
$u = -1.25187 - 0.99541I$ $a = -0.477673 + 1.039360I$ $b = -1.61618 + 0.53409I$	$14.3267 - 13.2133I$	0
$u = 0.332125 + 0.172454I$ $a = -0.91615 - 3.36326I$ $b = 0.882687 - 0.380208I$	$0.97861 - 1.95574I$	$-3.65064 + 3.03665I$
$u = 0.332125 - 0.172454I$ $a = -0.91615 + 3.36326I$ $b = 0.882687 + 0.380208I$	$0.97861 + 1.95574I$	$-3.65064 - 3.03665I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.373759$ $a = 1.40517$ $b = -1.39216$	-3.18526	8.01790
$u = 0.109443$ $a = -8.06908$ $b = -1.71570$	3.71239	4.37580

II.

$$I_2^u = \langle 2u^{11} + 2u^{10} + \dots + b - 3u, 3u^{11} + 4u^{10} + \dots + a - 6, u^{12} + u^{11} + \dots - u + 1 \rangle$$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} -3u^{11} - 4u^{10} + \dots + 5u + 6 \\ -2u^{11} - 2u^{10} + \dots - 5u^2 + 3u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -3u^{11} - 5u^{10} + \dots + 9u + 5 \\ 2u^{11} + 2u^{10} + \dots - u - 3 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -4u^{11} - 6u^{10} + \dots + 4u + 11 \\ -3u^{11} - 4u^{10} + \dots - 14u^2 + 3 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u^{11} - 2u^{10} + \dots + 2u + 6 \\ -2u^{11} - 2u^{10} + \dots - 5u^2 + 3u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -5u^{11} - 6u^{10} + \dots + 14u + 7 \\ -u^{10} - u^9 + 4u^8 + 4u^7 - 7u^6 - 4u^5 + 8u^4 + 2u^3 - 5u^2 - 2u + 1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -5u^{11} - 7u^{10} + \dots + 12u + 8 \\ -u^{10} - u^9 + 4u^8 + 4u^7 - 7u^6 - 4u^5 + 8u^4 + 2u^3 - 5u^2 - 2u + 1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -2u^{11} - 3u^{10} + \dots + 4u + 7 \\ -u^{11} - u^{10} + 5u^9 + 5u^8 - 10u^7 - 7u^6 + 12u^5 + 3u^4 - 9u^3 - 3u^2 + 2u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 4u^{11} + 7u^{10} + \dots - 8u - 5 \\ -u^{11} + 6u^9 + 2u^8 - 12u^7 - 2u^6 + 11u^5 - 2u^4 - 7u^3 - 4u^2 + u + 1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -3u^{11} - 4u^{10} + \dots + 6u + 5 \\ u^{11} + 2u^{10} - 3u^9 - 8u^8 + 3u^7 + 12u^6 - 3u^5 - 12u^4 + u^3 + 9u^2 - 2 \end{pmatrix}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes

$$= -22u^{11} - 25u^{10} + 99u^9 + 115u^8 - 193u^7 - 165u^6 + 241u^5 + 111u^4 - 185u^3 - 73u^2 + 54u + 6$$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{12} + 7y^{11} + \dots - 66y + 1$
c_2	$y^{12} - 13y^{11} + \dots - 75y + 1$
c_3	$y^{12} - 11y^{11} + \dots + 3y + 1$
c_4, c_8, c_9	$y^{12} - 8y^{11} + 18y^{10} + y^9 - 35y^8 + 5y^7 + 29y^6 - 2y^5 - y^4 - 2y^3 - 6y^2 + 1$
c_5	$y^{12} - 11y^{11} + \dots - 13y + 1$
c_6, c_7, c_{12}	$y^{12} - 17y^{11} + \dots - 16y + 1$
c_{10}	$y^{12} - 6y^{10} - 2y^9 - y^8 - 2y^7 + 29y^6 + 5y^5 - 35y^4 + y^3 + 18y^2 - 8y + 1$
c_{11}	$y^{12} - 11y^{11} + \dots - 47y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.758819 + 0.689182I$ $a = 0.17020 - 1.46697I$ $b = 1.078870 - 0.519683I$	$1.60765 - 3.05777I$	$-1.33050 + 7.30606I$
$u = 0.758819 - 0.689182I$ $a = 0.17020 + 1.46697I$ $b = 1.078870 + 0.519683I$	$1.60765 + 3.05777I$	$-1.33050 - 7.30606I$
$u = -0.771425 + 0.444552I$ $a = 0.78709 + 2.28125I$ $b = 1.15458 + 1.18981I$	$8.30950 + 5.26934I$	$4.00276 - 5.66957I$
$u = -0.771425 - 0.444552I$ $a = 0.78709 - 2.28125I$ $b = 1.15458 - 1.18981I$	$8.30950 - 5.26934I$	$4.00276 + 5.66957I$
$u = 1.29947$ $a = -1.51655$ $b = -1.10874$	0.486710	-0.332780
$u = -1.33762$ $a = -1.04653$ $b = -0.605429$	-6.53216	5.49390
$u = 0.656374$ $a = -0.765708$ $b = -2.08682$	3.11330	-10.0660
$u = -0.603038$ $a = 0.280338$ $b = -1.46953$	-3.50332	-18.5260
$u = 1.43791$ $a = -0.393742$ $b = 0.122601$	-4.98629	-9.47130
$u = 0.481939$ $a = 2.60883$ $b = -0.696593$	-0.845589	3.83140

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.45491 + 0.63338I$		
$a = 0.459395 + 0.118062I$	$6.08613 - 1.26753I$	$8.36359 + 3.51289I$
$b = 1.188800 - 0.172635I$		
$u = -1.45491 - 0.63338I$		
$a = 0.459395 - 0.118062I$	$6.08613 + 1.26753I$	$8.36359 - 3.51289I$
$b = 1.188800 + 0.172635I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{12} + u^{11} + \dots + 4u + 1)(u^{42} - 2u^{41} + \dots + 7155u + 1759)$
c_2	$(u^{12} + u^{11} + \dots - 7u - 1)(u^{42} - 20u^{40} + \dots - 4u + 1)$
c_3	$(u^{12} - 3u^{11} + \dots + u - 1)(u^{42} - 3u^{40} + \dots + 36u - 7)$
c_4	$(u^{12} - 4u^{10} - u^9 + u^8 + u^7 + 5u^6 + 4u^5 + u^4 - 2u^3 - 2u^2 - 2u - 1) \cdot (u^{42} - u^{41} + \dots + 125u - 43)$
c_5	$(u^{12} + u^{11} + \dots - u + 1)(u^{42} - 5u^{40} + \dots + 12u - 1)$
c_6, c_7	$(u^{12} + u^{11} + \dots - 2u - 1)(u^{42} - 2u^{41} + \dots - 9u + 1)$
c_8, c_9	$(u^{12} - 4u^{10} + u^9 + u^8 - u^7 + 5u^6 - 4u^5 + u^4 + 2u^3 - 2u^2 + 2u - 1) \cdot (u^{42} - u^{41} + \dots + 125u - 43)$
c_{10}	$(u^{12} + 2u^{11} + 2u^{10} + 2u^9 - u^8 - 4u^7 - 5u^6 - u^5 - u^4 + u^3 + 4u^2 - 1) \cdot (u^{42} + u^{41} + \dots + 17u + 1)$
c_{11}	$(u^{12} - 3u^{11} + \dots - 11u + 1)(u^{42} - 2u^{41} + \dots - 260u - 29)$
c_{12}	$(u^{12} - u^{11} + \dots + 2u - 1)(u^{42} - 2u^{41} + \dots - 9u + 1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{12} + 7y^{11} + \dots - 66y + 1)$ $\cdot (y^{42} + 84y^{41} + \dots - 28548659y + 3094081)$
c_2	$(y^{12} - 13y^{11} + \dots - 75y + 1)(y^{42} - 40y^{41} + \dots - 132y + 1)$
c_3	$(y^{12} - 11y^{11} + \dots + 3y + 1)(y^{42} - 6y^{41} + \dots - 246y + 49)$
c_4, c_8, c_9	$(y^{12} - 8y^{11} + 18y^{10} + y^9 - 35y^8 + 5y^7 + 29y^6 - 2y^5 - y^4 - 2y^3 - 6y^2 + 1)$ $\cdot (y^{42} + 5y^{41} + \dots + 3123y + 1849)$
c_5	$(y^{12} - 11y^{11} + \dots - 13y + 1)(y^{42} - 10y^{41} + \dots - 102y + 1)$
c_6, c_7, c_{12}	$(y^{12} - 17y^{11} + \dots - 16y + 1)(y^{42} - 56y^{41} + \dots - 185y + 1)$
c_{10}	$(y^{12} - 6y^{10} - 2y^9 - y^8 - 2y^7 + 29y^6 + 5y^5 - 35y^4 + y^3 + 18y^2 - 8y + 1)$ $\cdot (y^{42} + 41y^{41} + \dots - 193y + 1)$
c_{11}	$(y^{12} - 11y^{11} + \dots - 47y + 1)(y^{42} - 26y^{41} + \dots - 54028y + 841)$