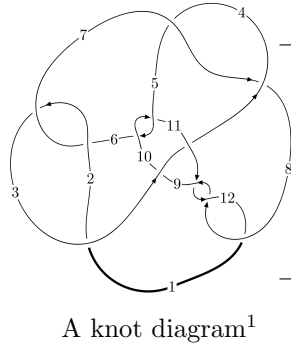
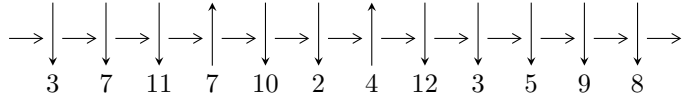


12n₀₅₉₃ (K12n₀₅₉₃)



Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle -3.56874 \times 10^{31}u^{44} + 1.26158 \times 10^{34}u^{43} + \dots + 1.98880 \times 10^{34}b - 6.49981 \times 10^{34}, \\ -7.56930 \times 10^{33}u^{44} - 2.14961 \times 10^{35}u^{43} + \dots + 1.39216 \times 10^{35}a + 1.06952 \times 10^{36}, \\ u^{45} + 18u^{43} + \dots + 19u - 7 \rangle$$

$$I_2^u = \langle u^{13} + u^{12} + 6u^{11} + 5u^{10} + 12u^9 + 8u^8 + 6u^7 + 3u^6 - 7u^5 - 2u^4 - 5u^3 - u^2 + b + 2u, \\ -2u^{14} - 2u^{13} - 14u^{12} - 11u^{11} - 36u^{10} - 21u^9 - 37u^8 - 15u^7 - 4u^6 - 5u^5 + 14u^4 - 7u^3 + 4u^2 + a - 4u, \\ u^{15} + u^{14} + 8u^{13} + 7u^{12} + 25u^{11} + 19u^{10} + 36u^9 + 24u^8 + 18u^7 + 13u^6 - 8u^5 + 2u^4 - 7u^3 + u^2 + 2u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 60 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.

$$\text{I. } I_1^u = \langle -3.57 \times 10^{31}u^{44} + 1.26 \times 10^{34}u^{43} + \dots + 1.99 \times 10^{34}b - 6.50 \times 10^{34}, -7.57 \times 10^{33}u^{44} - 2.15 \times 10^{35}u^{43} + \dots + 1.39 \times 10^{35}a + 1.07 \times 10^{36}, u^{45} + 18u^{43} + \dots + 19u - 7 \rangle$$

(i) Arc colorings

$$\begin{aligned} a_9 &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_{11} &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_4 &= \begin{pmatrix} 0.0543710u^{44} + 1.54408u^{43} + \dots + 25.1156u - 7.68247 \\ 0.00179442u^{44} - 0.634340u^{43} + \dots - 9.30054u + 3.26821 \end{pmatrix} \\ a_{12} &= \begin{pmatrix} 1 \\ u^2 \end{pmatrix} \\ a_3 &= \begin{pmatrix} 0.0561654u^{44} + 0.909740u^{43} + \dots + 15.8151u - 4.41426 \\ 0.00179442u^{44} - 0.634340u^{43} + \dots - 9.30054u + 3.26821 \end{pmatrix} \\ a_8 &= \begin{pmatrix} u \\ u^3 + u \end{pmatrix} \\ a_1 &= \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix} \\ a_7 &= \begin{pmatrix} 0.358819u^{44} - 0.964669u^{43} + \dots - 26.2905u + 8.77144 \\ -0.420878u^{44} + 0.770220u^{43} + \dots + 18.2959u - 5.48848 \end{pmatrix} \\ a_5 &= \begin{pmatrix} 0.0890726u^{44} + 2.49598u^{43} + \dots + 43.3584u - 17.2410 \\ 0.753177u^{44} - 0.733270u^{43} + \dots - 18.9174u + 5.28417 \end{pmatrix} \\ a_2 &= \begin{pmatrix} -1.09866u^{44} + 3.02308u^{43} + \dots + 57.4402u - 18.2187 \\ 0.664157u^{44} - 0.175210u^{43} + \dots - 7.32914u + 0.757240 \end{pmatrix} \\ a_6 &= \begin{pmatrix} -1.21775u^{44} + 2.63075u^{43} + \dots + 45.0187u - 14.3526 \\ 1.28859u^{44} - 0.261761u^{43} + \dots - 11.5685u + 2.33427 \end{pmatrix} \\ a_{10} &= \begin{pmatrix} -2.87696u^{44} - 1.48285u^{43} + \dots - 5.99600u + 8.64539 \\ 0.352943u^{44} + 0.731911u^{43} + \dots + 12.7349u - 5.07045 \end{pmatrix} \end{aligned}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $-0.911134u^{44} + 1.98306u^{43} + \dots + 48.6124u - 24.1982$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{45} + 56u^{44} + \dots + 603838u + 78961$
c_2, c_6	$u^{45} - 28u^{43} + \dots + 1642u - 281$
c_3	$u^{45} + 3u^{44} + \dots + 25u + 5$
c_4, c_7	$u^{45} + 5u^{44} + \dots + 23u + 1$
c_5, c_{10}	$u^{45} - u^{44} + \dots + 383u + 77$
c_8, c_{11}, c_{12}	$u^{45} + 18u^{43} + \dots + 19u - 7$
c_9	$u^{45} + 4u^{44} + \dots + 14063662u - 7404196$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{45} - 120y^{44} + \dots - 392839435230y - 6234839521$
c_2, c_6	$y^{45} - 56y^{44} + \dots + 603838y - 78961$
c_3	$y^{45} - y^{44} + \dots + 595y - 25$
c_4, c_7	$y^{45} + 45y^{44} + \dots + 173y - 1$
c_5, c_{10}	$y^{45} + 3y^{44} + \dots + 136371y - 5929$
c_8, c_{11}, c_{12}	$y^{45} + 36y^{44} + \dots - 157y - 49$
c_9	$y^{45} - 28y^{44} + \dots + 252875184270700y - 54822118406416$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.008740 + 0.105187I$ $a = -0.793375 + 0.421615I$ $b = -1.17957 - 1.05675I$	$-12.4412 - 8.8186I$	$-11.24074 + 4.62166I$
$u = 1.008740 - 0.105187I$ $a = -0.793375 - 0.421615I$ $b = -1.17957 + 1.05675I$	$-12.4412 + 8.8186I$	$-11.24074 - 4.62166I$
$u = -0.386406 + 0.901026I$ $a = 0.972143 - 0.261563I$ $b = -0.853990 - 0.224349I$	$-1.53875 + 2.61522I$	$-10.52840 - 2.22098I$
$u = -0.386406 - 0.901026I$ $a = 0.972143 + 0.261563I$ $b = -0.853990 + 0.224349I$	$-1.53875 - 2.61522I$	$-10.52840 + 2.22098I$
$u = -0.973608 + 0.085974I$ $a = -0.651872 + 0.166835I$ $b = -1.12732 - 1.18722I$	$-12.05690 + 0.39267I$	$-11.73771 - 0.23193I$
$u = -0.973608 - 0.085974I$ $a = -0.651872 - 0.166835I$ $b = -1.12732 + 1.18722I$	$-12.05690 - 0.39267I$	$-11.73771 + 0.23193I$
$u = 0.059330 + 1.065280I$ $a = 2.12098 - 2.58813I$ $b = 0.090245 + 1.168500I$	$4.60968 - 0.45678I$	$-4.72300 - 1.28970I$
$u = 0.059330 - 1.065280I$ $a = 2.12098 + 2.58813I$ $b = 0.090245 - 1.168500I$	$4.60968 + 0.45678I$	$-4.72300 + 1.28970I$
$u = 0.114676 + 1.068030I$ $a = 0.114025 + 0.194088I$ $b = 1.033700 + 0.324573I$	$0.63009 - 3.63899I$	$-6.69888 + 4.56263I$
$u = 0.114676 - 1.068030I$ $a = 0.114025 - 0.194088I$ $b = 1.033700 - 0.324573I$	$0.63009 + 3.63899I$	$-6.69888 - 4.56263I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.07704$ $a = -0.250717$ $b = -0.595129$	-5.84338	-27.3640
$u = -0.759699 + 0.408323I$ $a = 0.154012 + 0.433176I$ $b = 0.747946 - 0.618927I$	$-2.98722 + 1.75252I$	$-12.73751 - 3.21228I$
$u = -0.759699 - 0.408323I$ $a = 0.154012 - 0.433176I$ $b = 0.747946 + 0.618927I$	$-2.98722 - 1.75252I$	$-12.73751 + 3.21228I$
$u = 0.847403$ $a = -1.81130$ $b = -0.770728$	-6.54062	-18.4620
$u = -0.130385 + 1.145750I$ $a = -0.383923 - 0.931720I$ $b = -0.511829 + 0.522136I$	$2.58249 + 1.78836I$	$-4.62276 - 3.94731I$
$u = -0.130385 - 1.145750I$ $a = -0.383923 + 0.931720I$ $b = -0.511829 - 0.522136I$	$2.58249 - 1.78836I$	$-4.62276 + 3.94731I$
$u = 0.288094 + 1.183980I$ $a = -0.40323 + 3.10896I$ $b = -0.594143 - 0.715509I$	$0.14683 - 6.35148I$	$-6.06536 + 8.65205I$
$u = 0.288094 - 1.183980I$ $a = -0.40323 - 3.10896I$ $b = -0.594143 + 0.715509I$	$0.14683 + 6.35148I$	$-6.06536 - 8.65205I$
$u = -0.072450 + 1.292850I$ $a = -1.19970 + 1.90753I$ $b = 0.303712 - 0.219752I$	$3.92457 + 2.86801I$	$0. - 4.92967I$
$u = -0.072450 - 1.292850I$ $a = -1.19970 - 1.90753I$ $b = 0.303712 + 0.219752I$	$3.92457 - 2.86801I$	$0. + 4.92967I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.114422 + 1.323690I$ $a = 0.257409 - 0.903828I$ $b = -1.119530 + 0.548161I$	$1.39290 + 0.75681I$	0
$u = 0.114422 - 1.323690I$ $a = 0.257409 + 0.903828I$ $b = -1.119530 - 0.548161I$	$1.39290 - 0.75681I$	0
$u = 0.386963 + 1.277220I$ $a = 1.013090 - 0.512275I$ $b = 0.784008 - 0.030215I$	$-2.57080 - 4.43171I$	0
$u = 0.386963 - 1.277220I$ $a = 1.013090 + 0.512275I$ $b = 0.784008 + 0.030215I$	$-2.57080 + 4.43171I$	0
$u = -0.516771 + 1.244220I$ $a = 0.81944 + 1.89768I$ $b = 1.07051 - 1.15978I$	$-8.49081 + 4.89195I$	0
$u = -0.516771 - 1.244220I$ $a = 0.81944 - 1.89768I$ $b = 1.07051 + 1.15978I$	$-8.49081 - 4.89195I$	0
$u = 0.569830 + 1.241570I$ $a = -0.734691 + 0.190323I$ $b = 1.15852 - 1.01628I$	$-8.96525 + 3.25529I$	0
$u = 0.569830 - 1.241570I$ $a = -0.734691 - 0.190323I$ $b = 1.15852 + 1.01628I$	$-8.96525 - 3.25529I$	0
$u = 0.205740 + 1.371440I$ $a = -0.63512 + 1.75657I$ $b = -0.338407 - 1.348220I$	$8.00276 - 3.83937I$	0
$u = 0.205740 - 1.371440I$ $a = -0.63512 - 1.75657I$ $b = -0.338407 + 1.348220I$	$8.00276 + 3.83937I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.550103 + 1.293590I$ $a = 0.059859 + 0.501110I$ $b = 0.624990 - 0.274138I$	$-1.88022 + 5.73606I$	0
$u = -0.550103 - 1.293590I$ $a = 0.059859 - 0.501110I$ $b = 0.624990 + 0.274138I$	$-1.88022 - 5.73606I$	0
$u = 0.582077 + 0.106172I$ $a = 1.27394 + 1.42446I$ $b = 0.829596 - 0.667678I$	$-3.07621 + 3.07145I$	$-13.51053 - 3.59920I$
$u = 0.582077 - 0.106172I$ $a = 1.27394 - 1.42446I$ $b = 0.829596 + 0.667678I$	$-3.07621 - 3.07145I$	$-13.51053 + 3.59920I$
$u = -0.45273 + 1.36982I$ $a = -1.002820 - 0.419354I$ $b = 1.17560 + 1.20040I$	$-7.48754 + 5.49061I$	0
$u = -0.45273 - 1.36982I$ $a = -1.002820 + 0.419354I$ $b = 1.17560 - 1.20040I$	$-7.48754 - 5.49061I$	0
$u = 0.471958 + 0.271253I$ $a = 0.837882 + 0.291023I$ $b = 0.128615 + 1.136710I$	$2.86451 - 1.30518I$	$-1.84549 + 5.31752I$
$u = 0.471958 - 0.271253I$ $a = 0.837882 - 0.291023I$ $b = 0.128615 - 1.136710I$	$2.86451 + 1.30518I$	$-1.84549 - 5.31752I$
$u = 0.46756 + 1.38448I$ $a = 0.47175 - 1.91674I$ $b = 1.18172 + 1.08384I$	$-7.7658 - 14.0813I$	0
$u = 0.46756 - 1.38448I$ $a = 0.47175 + 1.91674I$ $b = 1.18172 - 1.08384I$	$-7.7658 + 14.0813I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.22570 + 1.49863I$ $a = 0.21030 - 1.42436I$ $b = -0.691548 + 0.992057I$	$3.35542 + 5.28363I$	0
$u = -0.22570 - 1.49863I$ $a = 0.21030 + 1.42436I$ $b = -0.691548 - 0.992057I$	$3.35542 - 5.28363I$	0
$u = 0.094137 + 0.391258I$ $a = 2.78827 - 0.14083I$ $b = -0.752412 + 0.154261I$	$-1.06912 + 2.39494I$	$-7.24233 + 0.84783I$
$u = 0.094137 - 0.391258I$ $a = 2.78827 + 0.14083I$ $b = -0.752412 - 0.154261I$	$-1.06912 - 2.39494I$	$-7.24233 - 0.84783I$
$u = -0.361714$ $a = 0.913846$ $b = 0.445021$	-0.670926	-14.8180

II.

$$I_2^u = \langle u^{13} + u^{12} + \dots + b + 2u, -2u^{14} - 2u^{13} + \dots + a - 4u, u^{15} + u^{14} + \dots + 2u + 1 \rangle$$

(i) Arc colorings

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

$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 2u^{14} + 2u^{13} + \dots - 4u^2 + 4u \\ -u^{13} - u^{12} + \dots + u^2 - 2u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 2u^{14} + u^{13} + \dots - 3u^2 + 2u \\ -u^{13} - u^{12} + \dots + u^2 - 2u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^{14} + 2u^{13} + \dots + 4u - 2 \\ u^{14} + u^{13} + \dots + 2u + 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 3u^{13} + 2u^{12} + \dots + 2u - 1 \\ u^{10} + u^9 + 5u^8 + 4u^7 + 8u^6 + 5u^5 + 3u^4 + 2u^3 - 2u^2 + u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 2u^{14} + 3u^{13} + \dots + u + 2 \\ -u^{14} - 2u^{13} + \dots - 3u - 1 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -2u^{14} - 3u^{13} + \dots - 2u - 2 \\ u^{14} + 2u^{13} + \dots + 3u + 1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -2u^{14} - u^{13} + \dots + 4u + 1 \\ -u^{13} - u^{12} - 7u^{11} - 6u^{10} - 18u^9 - 13u^8 - 18u^7 - 11u^6 - 2u^4 + 8u^3 \end{pmatrix}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes $= -u^{14} + u^{13} - 10u^{12} + 4u^{11} - 35u^{10} + 4u^9 - 50u^8 - 3u^7 - 11u^6 - 12u^5 + 36u^4 - 19u^3 + 18u^2 - 10u - 12$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{15} - 13u^{14} + \dots + 9u - 1$
c_2	$u^{15} - u^{14} + \dots + 3u - 1$
c_3	$u^{15} - 2u^{14} + \dots + 5u^2 - 1$
c_4	$u^{15} + 2u^{14} + \dots - 4u^2 - 1$
c_5	$u^{15} + 7u^{13} + \dots + 3u^2 + 1$
c_6	$u^{15} + u^{14} + \dots + 3u + 1$
c_7	$u^{15} - 2u^{14} + \dots + 4u^2 + 1$
c_8	$u^{15} - u^{14} + \dots + 2u - 1$
c_9	$u^{15} + 5u^{14} + \dots - 10u + 52$
c_{10}	$u^{15} + 7u^{13} + \dots - 3u^2 - 1$
c_{11}, c_{12}	$u^{15} + u^{14} + \dots + 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{15} - 9y^{14} + \dots - 7y - 1$
c_2, c_6	$y^{15} - 13y^{14} + \dots + 9y - 1$
c_3	$y^{15} + 6y^{14} + \dots + 10y - 1$
c_4, c_7	$y^{15} + 8y^{14} + \dots - 8y - 1$
c_5, c_{10}	$y^{15} + 14y^{14} + \dots - 6y - 1$
c_8, c_{11}, c_{12}	$y^{15} + 15y^{14} + \dots + 2y - 1$
c_9	$y^{15} + 7y^{14} + \dots - 5828y - 2704$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.957819$ $a = -0.661926$ $b = -0.464046$	-5.43240	-5.96330
$u = 0.170684 + 1.191940I$ $a = 1.99278 - 2.50947I$ $b = -0.224051 + 0.994213I$	$4.95411 - 1.54403I$	$-1.95869 + 3.90888I$
$u = 0.170684 - 1.191940I$ $a = 1.99278 + 2.50947I$ $b = -0.224051 - 0.994213I$	$4.95411 + 1.54403I$	$-1.95869 - 3.90888I$
$u = -0.065754 + 1.280360I$ $a = -0.214962 + 0.173404I$ $b = -1.132550 - 0.235968I$	$2.00576 - 2.03853I$	$-5.38866 + 3.46155I$
$u = -0.065754 - 1.280360I$ $a = -0.214962 - 0.173404I$ $b = -1.132550 + 0.235968I$	$2.00576 + 2.03853I$	$-5.38866 - 3.46155I$
$u = -0.438447 + 1.226120I$ $a = 0.397262 - 0.091676I$ $b = 0.546264 - 0.057068I$	$-1.69926 + 4.99019I$	$-7.83136 - 3.68033I$
$u = -0.438447 - 1.226120I$ $a = 0.397262 + 0.091676I$ $b = 0.546264 + 0.057068I$	$-1.69926 - 4.99019I$	$-7.83136 + 3.68033I$
$u = 0.574249 + 0.201778I$ $a = -0.090007 + 0.468927I$ $b = 0.257595 + 1.314620I$	$2.04734 - 1.06098I$	$-12.25326 + 1.45022I$
$u = 0.574249 - 0.201778I$ $a = -0.090007 - 0.468927I$ $b = 0.257595 - 1.314620I$	$2.04734 + 1.06098I$	$-12.25326 - 1.45022I$
$u = 0.227689 + 1.394080I$ $a = -0.46823 + 1.79191I$ $b = -0.35742 - 1.57983I$	$7.19370 - 4.01988I$	$-7.47475 + 4.21701I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.227689 - 1.394080I$ $a = -0.46823 - 1.79191I$ $b = -0.35742 + 1.57983I$	$7.19370 + 4.01988I$	$-7.47475 - 4.21701I$
$u = -0.17862 + 1.44151I$ $a = 0.40873 - 1.60438I$ $b = -0.707302 + 0.825528I$	$4.37895 + 5.24684I$	$-1.49909 - 5.49903I$
$u = -0.17862 - 1.44151I$ $a = 0.40873 + 1.60438I$ $b = -0.707302 - 0.825528I$	$4.37895 - 5.24684I$	$-1.49909 + 5.49903I$
$u = -0.310890 + 0.262705I$ $a = -0.69461 + 2.22045I$ $b = 0.849487 - 0.449404I$	$-1.36000 + 3.17848I$	$-10.11254 - 7.00555I$
$u = -0.310890 - 0.262705I$ $a = -0.69461 - 2.22045I$ $b = 0.849487 + 0.449404I$	$-1.36000 - 3.17848I$	$-10.11254 + 7.00555I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{15} - 13u^{14} + \dots + 9u - 1)(u^{45} + 56u^{44} + \dots + 603838u + 78961)$
c_2	$(u^{15} - u^{14} + \dots + 3u - 1)(u^{45} - 28u^{43} + \dots + 1642u - 281)$
c_3	$(u^{15} - 2u^{14} + \dots + 5u^2 - 1)(u^{45} + 3u^{44} + \dots + 25u + 5)$
c_4	$(u^{15} + 2u^{14} + \dots - 4u^2 - 1)(u^{45} + 5u^{44} + \dots + 23u + 1)$
c_5	$(u^{15} + 7u^{13} + \dots + 3u^2 + 1)(u^{45} - u^{44} + \dots + 383u + 77)$
c_6	$(u^{15} + u^{14} + \dots + 3u + 1)(u^{45} - 28u^{43} + \dots + 1642u - 281)$
c_7	$(u^{15} - 2u^{14} + \dots + 4u^2 + 1)(u^{45} + 5u^{44} + \dots + 23u + 1)$
c_8	$(u^{15} - u^{14} + \dots + 2u - 1)(u^{45} + 18u^{43} + \dots + 19u - 7)$
c_9	$(u^{15} + 5u^{14} + \dots - 10u + 52)$ $\cdot (u^{45} + 4u^{44} + \dots + 14063662u - 7404196)$
c_{10}	$(u^{15} + 7u^{13} + \dots - 3u^2 - 1)(u^{45} - u^{44} + \dots + 383u + 77)$
c_{11}, c_{12}	$(u^{15} + u^{14} + \dots + 2u + 1)(u^{45} + 18u^{43} + \dots + 19u - 7)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{15} - 9y^{14} + \dots - 7y - 1)$ $\cdot (y^{45} - 120y^{44} + \dots - 392839435230y - 6234839521)$
c_2, c_6	$(y^{15} - 13y^{14} + \dots + 9y - 1)(y^{45} - 56y^{44} + \dots + 603838y - 78961)$
c_3	$(y^{15} + 6y^{14} + \dots + 10y - 1)(y^{45} - y^{44} + \dots + 595y - 25)$
c_4, c_7	$(y^{15} + 8y^{14} + \dots - 8y - 1)(y^{45} + 45y^{44} + \dots + 173y - 1)$
c_5, c_{10}	$(y^{15} + 14y^{14} + \dots - 6y - 1)(y^{45} + 3y^{44} + \dots + 136371y - 5929)$
c_8, c_{11}, c_{12}	$(y^{15} + 15y^{14} + \dots + 2y - 1)(y^{45} + 36y^{44} + \dots - 157y - 49)$
c_9	$(y^{15} + 7y^{14} + \dots - 5828y - 2704)$ $\cdot (y^{45} - 28y^{44} + \dots + 252875184270700y - 54822118406416)$