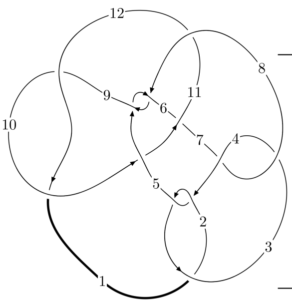
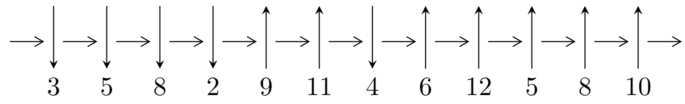
$12n_{0214}$ ($K12n_{0214}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & -2.09571 \times 10^{30} u^{16} - 2.07081 \times 10^{30} u^{15} + \cdots + 6.08382 \times 10^{33} b + 8.49226 \times 10^{32}, \\
& - 1.33922 \times 10^{32} u^{16} - 1.76390 \times 10^{32} u^{15} + \cdots + 6.08382 \times 10^{34} a - 1.49809 \times 10^{35}, \\
& u^{17} + u^{16} + \cdots + 384u - 256 \rangle \\
I_2^u = \langle & b,\ -u^8 + u^7 - 3u^6 + u^5 - 4u^4 + u^3 - 4u^2 + a - 2,\ u^9 - u^8 + 2u^7 - u^6 + 3u^5 - u^4 + 2u^3 + u + 1 \rangle
\end{aligned}$$

$$\begin{aligned}
I_1^v = \langle & a,\ -941v^7 + 2551v^6 - 1791v^5 - 6184v^4 + 16309v^3 + 15249v^2 + 887b - 4192v - 1842, \\
& v^8 - 2v^7 + 8v^5 - 13v^4 - 28v^3 - 7v^2 + 3v + 1 \rangle
\end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 34 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. $\boldsymbol{I^u_1 = \langle -2.10 \times 10^{30}u^{16} - 2.07 \times 10^{30}u^{15} + \cdots + 6.08 \times 10^{33}b + 8.49 \times 10^{32},\ -1.34 \times 10^{32}u^{16} - 1.76 \times 10^{32}u^{15} + \cdots + 6.08 \times 10^{34}a - 1.50 \times 10^{35},\ u^{17} + u^{16} + \cdots + 384u - 256\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0.00220128u^{16} + 0.00289932u^{15} + \cdots - 5.85108u + 2.46242 \\ 0.000344472u^{16} + 0.000340380u^{15} + \cdots - 1.54619u - 0.139587 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0.00303342u^{16} + 0.00362610u^{15} + \cdots - 7.69275u + 2.14413 \\ 0.000425453u^{16} + 0.000210059u^{15} + \cdots - 1.29270u - 0.166559 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -0.00104394u^{16} - 0.000502159u^{15} + \cdots - 0.986241u - 0.762867 \\ -0.000208289u^{16} - 0.000242907u^{15} + \cdots + 0.747325u - 0.207566 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -0.00179545u^{16} - 0.00185026u^{15} + \cdots + 2.21680u + 0.967939 \\ -0.000259975u^{16} - 0.000427010u^{15} + \cdots + 0.794841u + 0.0755036 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -0.00105718u^{16} - 0.000691805u^{15} + \cdots - 2.07890u + 0.560650 \\ -0.000380922u^{16} - 0.000264026u^{15} + \cdots + 0.424147u + 0.138080 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 0.000938601u^{16} + 0.000588558u^{15} + \cdots + 2.91399u - 0.516106 \\ 0.000131921u^{16} + 0.0000766562u^{15} + \cdots + 1.20979u - 0.0450674 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0.000676260u^{16} + 0.000427780u^{15} + \cdots + 2.50305u - 0.422569 \\ -0.000161339u^{16} - 0.0000449155u^{15} + \cdots + 0.692685u + 0.0744692 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0.00254189u^{16} + 0.00306982u^{15} + \cdots - 5.29234u + 2.34906 \\ 0.000191963u^{16} + 6.02751 \times 10^{-6}u^{15} + \cdots - 0.601447u - 0.0925424 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.0102860u^{16} + 0.00859873u^{15} + \cdots + 17.8393u + 1.47057$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{17} + 37u^{16} + \cdots + u + 1$
c_2, c_4	$u^{17} - 15u^{16} + \cdots + 3u - 1$
c_3, c_7	$u^{17} + u^{16} + \cdots + 384u - 256$
c_5, c_8	$u^{17} + 2u^{16} + \cdots + 3u + 1$
c_6	$u^{17} + u^{16} + \cdots - 512u - 512$
c_9, c_{12}	$u^{17} + 16u^{16} + \cdots - 11u + 1$
c_{10}	$u^{17} - 3u^{16} + \cdots - 167922u - 192217$
c_{11}	$u^{17} - 6u^{16} + \cdots - 19686u + 2393$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{17} - 57y^{16} + \cdots - 7859y - 1$
c_2, c_4	$y^{17} - 37y^{16} + \cdots + y - 1$
c_3, c_7	$y^{17} - 33y^{16} + \cdots + 245760y - 65536$
c_5, c_8	$y^{17} + 12y^{16} + \cdots + 25y - 1$
c_6	$y^{17} - 39y^{16} + \cdots + 3670016y - 262144$
c_9, c_{12}	$y^{17} - 40y^{16} + \cdots + 221y - 1$
c_{10}	$y^{17} - 45y^{16} + \cdots + 806894237728y - 36947375089$
c_{11}	$y^{17} - 38y^{16} + \cdots + 475084108y - 5726449$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.634179 + 0.647207I$ $a = -0.59964 + 1.28467I$ $b = -0.186633 - 0.343696I$	$-4.28789 + 1.16759I$	$-4.15148 + 0.42617I$
$u = 0.634179 - 0.647207I$ $a = -0.59964 - 1.28467I$ $b = -0.186633 + 0.343696I$	$-4.28789 - 1.16759I$	$-4.15148 - 0.42617I$
$u = -0.690024 + 0.240704I$ $a = 0.236937 - 1.076210I$ $b = 0.762159 + 0.184291I$	$-1.52593 + 2.30609I$	$0.84073 - 4.41351I$
$u = -0.690024 - 0.240704I$ $a = 0.236937 + 1.076210I$ $b = 0.762159 - 0.184291I$	$-1.52593 - 2.30609I$	$0.84073 + 4.41351I$
$u = -0.442272$ $a = 1.85319$ $b = 0.249683$	-1.26971	-9.85470
$u = 0.408620$ $a = 1.30764$ $b = -0.594904$	1.02663	10.5660
$u = 0.149177 + 0.310693I$ $a = 0.71057 - 3.54706I$ $b = -0.479273 - 0.632626I$	$0.959539 - 1.013620I$	$4.00582 - 0.77460I$
$u = 0.149177 - 0.310693I$ $a = 0.71057 + 3.54706I$ $b = -0.479273 + 0.632626I$	$0.959539 + 1.013620I$	$4.00582 + 0.77460I$
$u = 2.13688 + 2.10608I$ $a = 0.445317 + 0.501364I$ $b = -2.32289 + 2.38769I$	$-16.2212 - 7.3387I$	$3.75665 + 2.42096I$
$u = 2.13688 - 2.10608I$ $a = 0.445317 - 0.501364I$ $b = -2.32289 - 2.38769I$	$-16.2212 + 7.3387I$	$3.75665 - 2.42096I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -2.02549 + 2.27905I$ $a = -0.511301 + 0.473424I$ $b = 2.09738 + 2.40856I$	$19.0196 + 12.9458I$	$0.98224 - 5.00778I$
$u = -2.02549 - 2.27905I$ $a = -0.511301 - 0.473424I$ $b = 2.09738 - 2.40856I$	$19.0196 - 12.9458I$	$0.98224 + 5.00778I$
$u = -2.36097 + 2.01644I$ $a = -0.370113 + 0.467612I$ $b = 2.49326 + 2.18000I$	$19.0497 + 1.6784I$	$0.985857 + 0.191287I$
$u = -2.36097 - 2.01644I$ $a = -0.370113 - 0.467612I$ $b = 2.49326 - 2.18000I$	$19.0497 - 1.6784I$	$0.985857 - 0.191287I$
$u = -3.15648$ $a = 0.0710901$ $b = 3.69863$	3.68181	3.55300
$u = 3.25130 + 0.32944I$ $a = -0.0277291 + 0.0915040I$ $b = -3.54070 + 0.36634I$	$-0.61891 - 5.84472I$	$0.94829 + 2.62397I$
$u = 3.25130 - 0.32944I$ $a = -0.0277291 - 0.0915040I$ $b = -3.54070 - 0.36634I$	$-0.61891 + 5.84472I$	$0.94829 - 2.62397I$

II. $\boldsymbol{I_2^u = \langle b,\ -u^8 + u^7 - 3u^6 + u^5 - 4u^4 + u^3 - 4u^2 + a - 2,\ u^9 - u^8 + 2u^7 - u^6 + 3u^5 - u^4 + 2u^3 + u + 1\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u^8 - u^7 + 3u^6 - u^5 + 4u^4 - u^3 + 4u^2 + 2 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -u^7 + 2u^6 - u^5 + 2u^4 - u^3 + 3u^2 + u + 2 \\ u^7 + 2u^5 + 3u^3 + u^2 + 2u + 1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^2 + 1 \\ u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^4 + u^2 + 1 \\ u^4 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u^6 - u^4 - 2u^2 - 1 \\ -u^8 - 2u^6 - 2u^4 - 2u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^2 - 1 \\ -u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^7 + 2u^6 - u^5 + 2u^4 - u^3 + 4u^2 + u + 3 \\ u^7 + 2u^5 + 3u^3 + 2u^2 + 2u + 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4u^8 + 8u^7 - 13u^6 + 9u^5 - 17u^4 + 16u^3 - 13u^2 + 4u - 4$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^9-5u^8+12u^7-15u^6+9u^5+u^4-4u^3+2u^2+u-1$
c_2	$u^9+u^8-2u^7-3u^6+u^5+3u^4+2u^3-u-1$
c_3	$u^9+u^8+2u^7+u^6+3u^5+u^4+2u^3+u-1$
c_4	$u^9-u^8-2u^7+3u^6+u^5-3u^4+2u^3-u+1$
c_5	$u^9+3u^8+8u^7+13u^6+17u^5+17u^4+12u^3+6u^2+u-1$
c_6	u^9
c_7	$u^9-u^8+2u^7-u^6+3u^5-u^4+2u^3+u+1$
c_8	$u^9-3u^8+8u^7-13u^6+17u^5-17u^4+12u^3-6u^2+u+1$
c_9	$(u+1)^9$
c_{10}	$u^9+2u^8+5u^7+22u^6+52u^5+63u^4+41u^3+10u^2-2u-1$
c_{11}	$u^9+3u^8+3u^7-2u^6+u^5-9u^4+3u^3+2u-1$
c_{12}	$(u-1)^9$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^9 - y^8 + 12y^7 - 7y^6 + 37y^5 + y^4 - 10y^2 + 5y - 1$
c_2, c_4	$y^9 - 5y^8 + 12y^7 - 15y^6 + 9y^5 + y^4 - 4y^3 + 2y^2 + y - 1$
c_3, c_7	$y^9 + 3y^8 + 8y^7 + 13y^6 + 17y^5 + 17y^4 + 12y^3 + 6y^2 + y - 1$
c_5, c_8	$y^9 + 7y^8 + 20y^7 + 25y^6 + 5y^5 - 15y^4 + 22y^2 + 13y - 1$
c_6	y^9
c_9, c_{12}	$(y-1)^9$
c_{10}	$y^9 + 6y^8 + \cdots + 24y - 1$
c_{11}	$y^9 - 3y^8 + 23y^7 + 62y^6 - 13y^5 - 57y^4 + 9y^3 - 6y^2 + 4y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.140343 + 0.966856I$ $a = -0.483566 + 0.305056I$ $b = 0$	$3.42837 + 2.09337I$	$7.05683 - 6.62869I$
$u = -0.140343 - 0.966856I$ $a = -0.483566 - 0.305056I$ $b = 0$	$3.42837 - 2.09337I$	$7.05683 + 6.62869I$
$u = -0.628449 + 0.875112I$ $a = 1.022450 + 0.246780I$ $b = 0$	$1.02799 + 2.45442I$	$3.88318 - 3.00529I$
$u = -0.628449 - 0.875112I$ $a = 1.022450 - 0.246780I$ $b = 0$	$1.02799 - 2.45442I$	$3.88318 + 3.00529I$
$u = 0.796005 + 0.733148I$ $a = -1.23246 + 1.62704I$ $b = 0$	$-2.72642 + 1.33617I$	$1.90921 + 3.07774I$
$u = 0.796005 - 0.733148I$ $a = -1.23246 - 1.62704I$ $b = 0$	$-2.72642 - 1.33617I$	$1.90921 - 3.07774I$
$u = 0.728966 + 0.986295I$ $a = 0.411691 + 0.129409I$ $b = 0$	$-1.95319 - 7.08493I$	$-2.13339 + 8.87891I$
$u = 0.728966 - 0.986295I$ $a = 0.411691 - 0.129409I$ $b = 0$	$-1.95319 + 7.08493I$	$-2.13339 - 8.87891I$
$u = -0.512358$ $a = 3.56378$ $b = 0$	0.446489	-13.4320

III. $I_1^v = \langle a,\ -941v^7 + 2551v^6 + \cdots + 887b - 1842,\ v^8 - 2v^7 + 8v^5 - 13v^4 - 28v^3 - 7v^2 + 3v + 1\rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} v \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ 1.06088v^7 - 2.87599v^6 + \cdots + 4.72604v + 2.07666 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 1.06088v^7 - 2.87599v^6 + \cdots + 4.72604v + 2.07666 \\ 1.06088v^7 - 2.87599v^6 + \cdots + 4.72604v + 2.07666 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} v \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ -1.62683v^7 + 3.57497v^6 + \cdots - 1.17926v - 3.82638 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1.62683v^7 - 3.57497v^6 + \cdots + 1.17926v + 4.82638 \\ 2.38219v^7 - 5.33258v^6 + \cdots - 1.21984v + 6.70349 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -0.755355v^7 + 1.75761v^6 + \cdots + 2.39910v - 1.87711 \\ -v^7 + 2v^6 - 8v^4 + 13v^3 + 28v^2 + 7v - 3 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 0.755355v^7 - 1.75761v^6 + \cdots - 1.39910v + 1.87711 \\ v^7 - 2v^6 + 8v^4 - 13v^3 - 28v^2 - 7v + 3 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0.755355v^7 - 1.75761v^6 + \cdots - 2.39910v + 1.87711 \\ v^7 - 2v^6 + 8v^4 - 13v^3 - 28v^2 - 7v + 3 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0.244645v^7 - 0.242390v^6 + \cdots - 4.60090v + 1.12289 \\ v^7 - 2v^6 + 8v^4 - 13v^3 - 28v^2 - 7v + 3 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes

$= \frac{7569}{887}v^7 - \frac{17105}{887}v^6 + \frac{3122}{887}v^5 + \frac{63760}{887}v^4 - \frac{119185}{887}v^3 - \frac{185558}{887}v^2 + \frac{17829}{887}v + \frac{32002}{887}$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4	$(y-1)^8$
c_3, c_7	y^8
c_5, c_8	$y^8 + 5y^7 + 11y^6 + 6y^5 - 17y^4 - 34y^3 - 22y^2 - 4y + 1$
c_6, c_{11}	$y^8 - 3y^7 + 7y^6 - 10y^5 + 11y^4 - 10y^3 + 6y^2 - 4y + 1$
c_9, c_{10}, c_{12}	$y^8 - 7y^7 + 19y^6 - 22y^5 + 3y^4 + 14y^3 - 6y^2 - 4y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$v = -1.230330 + 0.083902I$ $a = 0$ $b = 0.855237 + 0.665892I$	$-3.80435 + 2.57849I$	$-1.56478 - 3.68514I$
$v = -1.230330 - 0.083902I$ $a = 0$ $b = 0.855237 - 0.665892I$	$-3.80435 - 2.57849I$	$-1.56478 + 3.68514I$
$v = -0.370895 + 0.073482I$ $a = 0$ $b = -1.031810 + 0.655470I$	$0.73474 - 6.44354I$	$8.02705 + 7.90662I$
$v = -0.370895 - 0.073482I$ $a = 0$ $b = -1.031810 - 0.655470I$	$0.73474 + 6.44354I$	$8.02705 - 7.90662I$
$v = 0.337834$ $a = 0$ $b = 1.09818$	4.85780	14.7400
$v = 1.21928 + 2.03110I$ $a = 0$ $b = -0.570868 + 0.730671I$	$-0.604279 + 1.131230I$	$-3.30729 + 4.28492I$
$v = 1.21928 - 2.03110I$ $a = 0$ $b = -0.570868 - 0.730671I$	$-0.604279 - 1.131230I$	$-3.30729 - 4.28492I$
$v = 2.42604$ $a = 0$ $b = -0.603304$	-0.799899	9.95010

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u-1)^8(u^9-5u^8+12u^7-15u^6+9u^5+u^4-4u^3+2u^2+u-1)$ $\cdot(u^{17}+37u^{16}+\cdots+u+1)$
c_2	$(u-1)^8(u^9+u^8-2u^7-3u^6+u^5+3u^4+2u^3-u-1)$ $\cdot(u^{17}-15u^{16}+\cdots+3u-1)$
c_3	$u^8(u^9+u^8+2u^7+u^6+3u^5+u^4+2u^3+u-1)$ $\cdot(u^{17}+u^{16}+\cdots+384u-256)$
c_4	$(u+1)^8(u^9-u^8-2u^7+3u^6+u^5-3u^4+2u^3-u+1)$ $\cdot(u^{17}-15u^{16}+\cdots+3u-1)$
c_5	$(u^8+3u^7+7u^6+10u^5+11u^4+10u^3+6u^2+4u+1)$ $\cdot(u^9+3u^8+8u^7+13u^6+17u^5+17u^4+12u^3+6u^2+u-1)$ $\cdot(u^{17}+2u^{16}+\cdots+3u+1)$
c_6	$u^9(u^8+u^7+\cdots-2u-1)(u^{17}+u^{16}+\cdots-512u-512)$
c_7	$u^8(u^9-u^8+2u^7-u^6+3u^5-u^4+2u^3+u+1)$ $\cdot(u^{17}+u^{16}+\cdots+384u-256)$
c_8	$(u^8-3u^7+7u^6-10u^5+11u^4-10u^3+6u^2-4u+1)$ $\cdot(u^9-3u^8+8u^7-13u^6+17u^5-17u^4+12u^3-6u^2+u+1)$ $\cdot(u^{17}+2u^{16}+\cdots+3u+1)$
c_9	$(u+1)^9(u^8-u^7-3u^6+2u^5+3u^4-2u-1)$ $\cdot(u^{17}+16u^{16}+\cdots-11u+1)$
c_{10}	$(u^8+u^7-3u^6-2u^5+3u^4+2u-1)$ $\cdot(u^9+2u^8+5u^7+22u^6+52u^5+63u^4+41u^3+10u^2-2u-1)$ $\cdot(u^{17}-3u^{16}+\cdots-167922u-192217)$
c_{11}	$(u^8-u^7-u^6+2u^5+u^4-2u^3+2u-1)$ $\cdot(u^9+3u^8+3u^7-2u^6+u^5-9u^4+3u^3+2u-1)$ $\cdot(u^{17}-6u^{16}+\cdots-19686u+2393)$
c_{12}	$(u-1)^9(u^8+u^7-3u^6-2u^5+3u^4+2u-1)$ $\cdot(u^{17}+16u^{16}+\cdots-11u+1)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y-1)^8(y^9 - y^8 + 12y^7 - 7y^6 + 37y^5 + y^4 - 10y^2 + 5y - 1)$ $\cdot (y^{17} - 57y^{16} + \cdots - 7859y - 1)$
c_2, c_4	$(y-1)^8(y^9 - 5y^8 + 12y^7 - 15y^6 + 9y^5 + y^4 - 4y^3 + 2y^2 + y - 1)$ $\cdot (y^{17} - 37y^{16} + \cdots + y - 1)$
c_3, c_7	$y^8(y^9 + 3y^8 + 8y^7 + 13y^6 + 17y^5 + 17y^4 + 12y^3 + 6y^2 + y - 1)$ $\cdot (y^{17} - 33y^{16} + \cdots + 245760y - 65536)$
c_5, c_8	$(y^8 + 5y^7 + 11y^6 + 6y^5 - 17y^4 - 34y^3 - 22y^2 - 4y + 1)$ $\cdot (y^9 + 7y^8 + 20y^7 + 25y^6 + 5y^5 - 15y^4 + 22y^2 + 13y - 1)$ $\cdot (y^{17} + 12y^{16} + \cdots + 25y - 1)$
c_6	$y^9(y^8 - 3y^7 + 7y^6 - 10y^5 + 11y^4 - 10y^3 + 6y^2 - 4y + 1)$ $\cdot (y^{17} - 39y^{16} + \cdots + 3670016y - 262144)$
c_9, c_{12}	$(y-1)^9(y^8 - 7y^7 + 19y^6 - 22y^5 + 3y^4 + 14y^3 - 6y^2 - 4y + 1)$ $\cdot (y^{17} - 40y^{16} + \cdots + 221y - 1)$
c_{10}	$(y^8 - 7y^7 + 19y^6 - 22y^5 + 3y^4 + 14y^3 - 6y^2 - 4y + 1)$ $\cdot (y^9 + 6y^8 + \cdots + 24y - 1)$ $\cdot (y^{17} - 45y^{16} + \cdots + 806894237728y - 36947375089)$
c_{11}	$(y^8 - 3y^7 + 7y^6 - 10y^5 + 11y^4 - 10y^3 + 6y^2 - 4y + 1)$ $\cdot (y^9 - 3y^8 + 23y^7 + 62y^6 - 13y^5 - 57y^4 + 9y^3 - 6y^2 + 4y - 1)$ $\cdot (y^{17} - 38y^{16} + \cdots + 475084108y - 5726449)$