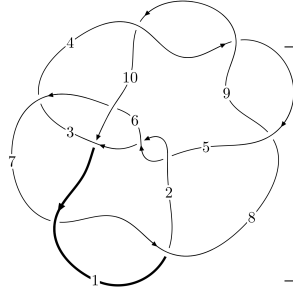
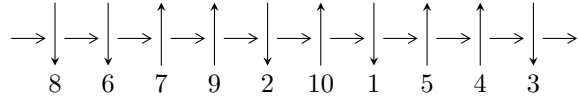


10₁₀₈ (K10a₁₁₉)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle -11u^{13} - 5u^{12} + \dots + 4b + 21, a - 1, \\ u^{14} + 3u^{12} - u^{11} + 10u^{10} - 2u^9 + 12u^8 - 2u^7 + 12u^6 - u^5 + 5u^4 - 4u^3 - 2u + 1 \rangle$$

$$I_2^u = \langle -1.14931 \times 10^{20}u^{23} + 8.36148 \times 10^{19}u^{22} + \dots + 1.67024 \times 10^{21}b + 1.69140 \times 10^{22}, \\ -7.94884 \times 10^{24}u^{23} + 4.40832 \times 10^{25}u^{22} + \dots + 8.43824 \times 10^{25}a + 2.32671 \times 10^{27}, \\ u^{24} + 3u^{23} + \dots + 6u + 19 \rangle$$

$$I_3^u = \langle -u^6 - u^5 - 3u^3 - 3u^2 + 2b - u + 1, a + 1, u^7 + u^5 + u^4 + 2u^3 - 1 \rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 45 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.

$$\text{I. } \Gamma_1^u = \langle -11u^{13} - 5u^{12} + \dots + 4b + 21, a - 1, u^{14} + 3u^{12} + \dots - 2u + 1 \rangle$$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ \frac{11}{4}u^{13} + \frac{5}{4}u^{12} + \dots - \frac{1}{4}u - \frac{21}{4} \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -\frac{11}{4}u^{13} - \frac{5}{4}u^{12} + \dots + \frac{1}{4}u + \frac{25}{4} \\ \frac{11}{4}u^{13} + \frac{5}{4}u^{12} + \dots - \frac{1}{4}u - \frac{21}{4} \end{pmatrix}$$

$$a_8 = \begin{pmatrix} \frac{7}{2}u^{13} + u^{12} + \dots + \frac{1}{2}u - 6 \\ -\frac{9}{4}u^{13} - \frac{1}{4}u^{12} + \dots - \frac{1}{4}u + \frac{13}{4} \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u \\ -\frac{5}{4}u^{13} - \frac{3}{4}u^{12} + \dots + \frac{3}{4}u + \frac{11}{4} \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -\frac{3}{4}u^{13} - \frac{1}{4}u^{12} + \dots + \frac{1}{4}u + \frac{9}{4} \\ u^{13} + \frac{1}{2}u^{12} + \dots + u - \frac{7}{2} \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -\frac{7}{4}u^{13} - \frac{7}{4}u^{12} + \dots + \frac{5}{4}u + \frac{15}{4} \\ -\frac{1}{4}u^{13} + \frac{1}{4}u^{12} + \dots + \frac{3}{4}u + \frac{3}{4} \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -\frac{11}{4}u^{13} - \frac{5}{4}u^{12} + \dots + \frac{1}{4}u + \frac{25}{4} \\ \frac{7}{2}u^{13} + \frac{3}{2}u^{12} + \dots - \frac{1}{2}u - \frac{13}{2} \end{pmatrix}$$

(ii) Obstruction class = -1

$$\text{(iii) Cusp Shapes} = -\frac{63}{4}u^{13} - \frac{39}{4}u^{12} - 49u^{11} - \frac{61}{4}u^{10} - \frac{623}{4}u^9 - \frac{289}{4}u^8 - \frac{781}{4}u^7 - \frac{407}{4}u^6 - \frac{843}{4}u^5 - 125u^4 - \frac{479}{4}u^3 - \frac{23}{4}u^2 + \frac{41}{4}u + \frac{111}{4}$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_5 c_7	$u^{14} + u^{13} + \dots + u + 1$
c_3, c_6	$u^{14} + 3u^{12} + \dots + 2u + 1$
c_4, c_8, c_9	$u^{14} - 7u^{13} + \dots - 56u + 8$
c_{10}	$u^{14} - 13u^{13} + \dots - 128u + 16$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_5 c_7	$y^{14} - 15y^{13} + \dots + 7y + 1$
c_3, c_6	$y^{14} + 6y^{13} + \dots - 4y + 1$
c_4, c_8, c_9	$y^{14} + 13y^{13} + \dots - 32y + 64$
c_{10}	$y^{14} - 3y^{13} + \dots - 128y + 256$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.449224 + 0.834596I$ $a = 1.00000$ $b = 1.63158 + 1.27198I$	$-6.03431 - 1.96052I$	$-7.98588 + 3.63018I$
$u = -0.449224 - 0.834596I$ $a = 1.00000$ $b = 1.63158 - 1.27198I$	$-6.03431 + 1.96052I$	$-7.98588 - 3.63018I$
$u = -0.078710 + 0.897903I$ $a = 1.00000$ $b = 1.17059 - 1.56821I$	$-13.45690 - 3.91206I$	$-10.44278 + 2.90737I$
$u = -0.078710 - 0.897903I$ $a = 1.00000$ $b = 1.17059 + 1.56821I$	$-13.45690 + 3.91206I$	$-10.44278 - 2.90737I$
$u = -0.605476 + 0.511603I$ $a = 1.00000$ $b = 0.410349 + 0.397635I$	$1.004190 - 0.960325I$	$4.75919 + 2.76007I$
$u = -0.605476 - 0.511603I$ $a = 1.00000$ $b = 0.410349 - 0.397635I$	$1.004190 + 0.960325I$	$4.75919 - 2.76007I$
$u = 0.777537 + 1.051940I$ $a = 1.00000$ $b = 0.686906 - 0.276246I$	$-4.00326 + 3.48344I$	$0.15043 - 1.66516I$
$u = 0.777537 - 1.051940I$ $a = 1.00000$ $b = 0.686906 + 0.276246I$	$-4.00326 - 3.48344I$	$0.15043 + 1.66516I$
$u = 0.803725 + 1.091800I$ $a = 1.00000$ $b = 1.43309 - 0.98357I$	$-6.98628 + 8.54350I$	$-5.70825 - 6.73218I$
$u = 0.803725 - 1.091800I$ $a = 1.00000$ $b = 1.43309 + 0.98357I$	$-6.98628 - 8.54350I$	$-5.70825 + 6.73218I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.497537 + 0.019222I$ $a = 1.00000$ $b = -0.118230 + 0.827768I$	$-0.78382 + 1.56236I$	$-0.68409 - 4.99180I$
$u = 0.497537 - 0.019222I$ $a = 1.00000$ $b = -0.118230 - 0.827768I$	$-0.78382 - 1.56236I$	$-0.68409 + 4.99180I$
$u = -0.94539 + 1.37947I$ $a = 1.00000$ $b = 1.28571 + 0.96390I$	$-14.9753 - 12.9046I$	$-7.08862 + 6.20783I$
$u = -0.94539 - 1.37947I$ $a = 1.00000$ $b = 1.28571 - 0.96390I$	$-14.9753 + 12.9046I$	$-7.08862 - 6.20783I$

$$\text{II. } I_2^u = \langle -1.15 \times 10^{20} u^{23} + 8.36 \times 10^{19} u^{22} + \dots + 1.67 \times 10^{21} b + 1.69 \times 10^{22}, -7.95 \times 10^{24} u^{23} + 4.41 \times 10^{25} u^{22} + \dots + 8.44 \times 10^{25} a + 2.33 \times 10^{27}, u^{24} + 3u^{23} + \dots + 6u + 19 \rangle$$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.0942002u^{23} - 0.522421u^{22} + \dots - 0.770681u - 27.5734 \\ 0.0688111u^{23} - 0.0500614u^{22} + \dots - 0.114391u - 10.1267 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.0253891u^{23} - 0.472360u^{22} + \dots - 0.656290u - 17.4468 \\ 0.0688111u^{23} - 0.0500614u^{22} + \dots - 0.114391u - 10.1267 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.210439u^{23} - 0.295381u^{22} + \dots + 0.388096u - 30.0893 \\ 0.142257u^{23} + 0.385777u^{22} + \dots + 6.96971u + 1.18135 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.412085u^{23} + 0.307609u^{22} + \dots + 8.81510u - 23.1359 \\ 0.0593893u^{23} + 0.217213u^{22} + \dots + 3.45729u + 5.77204 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -1.13112u^{23} - 2.14478u^{22} + \dots - 38.0006u + 30.5997 \\ -0.121067u^{23} - 0.349984u^{22} + \dots - 8.56109u - 3.83752 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -1.76389u^{23} - 5.24938u^{22} + \dots - 57.7044u - 1.81964 \\ -0.503760u^{23} - 1.53601u^{22} + \dots - 18.2795u - 3.57211 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.0384844u^{23} - 1.08724u^{22} + \dots - 3.69662u - 32.7422 \\ -0.0389677u^{23} - 0.469297u^{22} + \dots - 3.63598u - 13.2952 \end{pmatrix}$$

(ii) Obstruction class = -1

$$\text{(iii) Cusp Shapes} = -\frac{6347129273848677988188136}{4441180884722885954957147} u^{23} - \frac{14886253620454834880565064}{4441180884722885954957147} u^{22} + \dots - \frac{311699801293938790854796424}{4441180884722885954957147} u + \frac{98611701692235728991949218}{4441180884722885954957147}$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_5 c_7	$u^{24} - u^{23} + \dots + 12u + 1$
c_3, c_6	$u^{24} - 3u^{23} + \dots - 6u + 19$
c_4, c_8, c_9	$(u^4 + u^3 + 3u^2 + 2u + 1)^6$
c_{10}	$(u^3 + u^2 - 1)^8$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_5 c_7	$y^{24} - 21y^{23} + \dots + 220y + 1$
c_3, c_6	$y^{24} + 7y^{23} + \dots + 5436y + 361$
c_4, c_8, c_9	$(y^4 + 5y^3 + 7y^2 + 2y + 1)^6$
c_{10}	$(y^3 - y^2 + 2y - 1)^8$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.527689 + 0.759509I$ $a = -1.56824 - 0.01791I$ $b = -0.877439 + 0.744862I$	$-1.69967 + 4.24323I$	$-2.66351 - 7.88819I$
$u = 0.527689 - 0.759509I$ $a = -1.56824 + 0.01791I$ $b = -0.877439 - 0.744862I$	$-1.69967 - 4.24323I$	$-2.66351 + 7.88819I$
$u = 0.076109 + 0.834463I$ $a = -1.29027 + 0.93223I$ $b = -0.877439 - 0.744862I$	$-8.70142 + 0.33584I$	$-6.31698 + 0.41465I$
$u = 0.076109 - 0.834463I$ $a = -1.29027 - 0.93223I$ $b = -0.877439 + 0.744862I$	$-8.70142 - 0.33584I$	$-6.31698 - 0.41465I$
$u = 0.448386 + 0.692782I$ $a = -0.608916 - 0.502989I$ $b = -0.877439 + 0.744862I$	$-1.69967 + 1.41302I$	$-2.66351 + 1.92930I$
$u = 0.448386 - 0.692782I$ $a = -0.608916 + 0.502989I$ $b = -0.877439 - 0.744862I$	$-1.69967 - 1.41302I$	$-2.66351 - 1.92930I$
$u = -0.384009 + 0.725091I$ $a = 0.33711 - 1.83607I$ $b = 0.754878$	$-5.83725 - 1.41510I$	$-9.19277 + 4.90874I$
$u = -0.384009 - 0.725091I$ $a = 0.33711 + 1.83607I$ $b = 0.754878$	$-5.83725 + 1.41510I$	$-9.19277 - 4.90874I$
$u = -0.793266 + 0.923818I$ $a = -1.61039 + 0.28080I$ $b = -0.877439 - 0.744862I$	$-8.70142 - 5.99209I$	$-6.31698 + 5.54425I$
$u = -0.793266 - 0.923818I$ $a = -1.61039 - 0.28080I$ $b = -0.877439 + 0.744862I$	$-8.70142 + 5.99209I$	$-6.31698 - 5.54425I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.090233 + 0.756403I$ $a = 2.06937 + 2.25178I$ $b = 0.754878$	$-12.83900 + 3.16396I$	$-12.84625 - 2.56480I$
$u = -0.090233 - 0.756403I$ $a = 2.06937 - 2.25178I$ $b = 0.754878$	$-12.83900 - 3.16396I$	$-12.84625 + 2.56480I$
$u = -0.876115 + 1.005730I$ $a = -0.509213 + 0.367913I$ $b = -0.877439 + 0.744862I$	$-8.70142 - 0.33584I$	$-6.31698 - 0.41465I$
$u = -0.876115 - 1.005730I$ $a = -0.509213 - 0.367913I$ $b = -0.877439 - 0.744862I$	$-8.70142 + 0.33584I$	$-6.31698 + 0.41465I$
$u = 0.075432 + 0.647379I$ $a = -0.976176 - 0.806360I$ $b = -0.877439 - 0.744862I$	$-1.69967 - 1.41302I$	$-2.66351 - 1.92930I$
$u = 0.075432 - 0.647379I$ $a = -0.976176 + 0.806360I$ $b = -0.877439 + 0.744862I$	$-1.69967 + 1.41302I$	$-2.66351 + 1.92930I$
$u = -0.81394 + 1.20054I$ $a = -0.637576 - 0.007282I$ $b = -0.877439 - 0.744862I$	$-1.69967 - 4.24323I$	$-2.66351 + 7.88819I$
$u = -0.81394 - 1.20054I$ $a = -0.637576 + 0.007282I$ $b = -0.877439 + 0.744862I$	$-1.69967 + 4.24323I$	$-2.66351 - 7.88819I$
$u = 1.20186 + 0.94950I$ $a = 0.096737 + 0.526881I$ $b = 0.754878$	$-5.83725 - 1.41510I$	$-9.19277 + 4.90874I$
$u = 1.20186 - 0.94950I$ $a = 0.096737 - 0.526881I$ $b = 0.754878$	$-5.83725 + 1.41510I$	$-9.19277 - 4.90874I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.01806 + 1.71046I$ $a = -0.602643 + 0.105082I$ $b = -0.877439 + 0.744862I$	$-8.70142 + 5.99209I$	$-6.31698 - 5.54425I$
$u = 1.01806 - 1.71046I$ $a = -0.602643 - 0.105082I$ $b = -0.877439 - 0.744862I$	$-8.70142 - 5.99209I$	$-6.31698 + 5.54425I$
$u = -1.88998 + 1.36209I$ $a = 0.221256 - 0.240760I$ $b = 0.754878$	$-12.83900 + 3.16396I$	0
$u = -1.88998 - 1.36209I$ $a = 0.221256 + 0.240760I$ $b = 0.754878$	$-12.83900 - 3.16396I$	0

$$\text{III. } I_3^u = \langle -u^6 - u^5 - 3u^3 - 3u^2 + 2b - u + 1, a + 1, u^7 + u^5 + u^4 + 2u^3 - 1 \rangle$$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -1 \\ \frac{1}{2}u^6 + \frac{1}{2}u^5 + \cdots + \frac{1}{2}u - \frac{1}{2} \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -\frac{1}{2}u^6 - \frac{1}{2}u^5 + \cdots - \frac{1}{2}u - \frac{1}{2} \\ \frac{1}{2}u^6 + \frac{1}{2}u^5 + \cdots + \frac{1}{2}u - \frac{1}{2} \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -\frac{3}{2}u^6 + \frac{1}{2}u^5 + \cdots - \frac{1}{2}u - \frac{1}{2} \\ u^6 + u^4 + u^3 + 2u^2 + u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u \\ \frac{1}{2}u^6 - \frac{1}{2}u^5 + \cdots + \frac{1}{2}u + \frac{1}{2} \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -\frac{1}{2}u^6 + \frac{1}{2}u^5 + \cdots + \frac{1}{2}u + \frac{3}{2} \\ \frac{1}{2}u^6 - \frac{1}{2}u^5 + \cdots - \frac{1}{2}u - \frac{3}{2} \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^6 + u^4 + 2u^3 + u^2 + u \\ -\frac{1}{2}u^6 - \frac{1}{2}u^5 + \cdots - \frac{3}{2}u + \frac{1}{2} \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -\frac{1}{2}u^6 - \frac{1}{2}u^5 + \cdots - \frac{1}{2}u - \frac{1}{2} \\ u^5 - u^4 + u^3 + u^2 + u \end{pmatrix}$$

(ii) Obstruction class = 1

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

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_5 c_7	$y^7 - 7y^6 + 21y^5 - 33y^4 + 29y^3 - 16y^2 + 5y - 1$
c_3, c_6	$y^7 + 2y^6 + 5y^5 + 3y^4 + 4y^3 + 2y^2 - 1$
c_4, c_8, c_9	$y^7 + 8y^6 + 24y^5 + 32y^4 + 16y^3 - y^2 - 2y - 1$
c_{10}	$y^7 - 2y^6 + 5y^5 - 8y^4 + 8y^3 - 4y^2 - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.796153 + 0.643678I$ $a = -1.00000$ $b = 0.361823 + 0.541221I$	$-11.54960 + 2.86772I$	$-5.28046 - 0.77527I$
$u = -0.796153 - 0.643678I$ $a = -1.00000$ $b = 0.361823 - 0.541221I$	$-11.54960 - 2.86772I$	$-5.28046 + 0.77527I$
$u = -0.271378 + 0.816016I$ $a = -1.00000$ $b = -0.905465 - 0.998646I$	$-2.23879 - 2.27150I$	$-8.12085 + 5.44639I$
$u = -0.271378 - 0.816016I$ $a = -1.00000$ $b = -0.905465 + 0.998646I$	$-2.23879 + 2.27150I$	$-8.12085 - 5.44639I$
$u = 0.670242$ $a = -1.00000$ $b = 1.07355$	-5.45683	-6.44350
$u = 0.732410 + 1.178280I$ $a = -1.00000$ $b = -0.993133 + 0.472371I$	$-4.86730 + 3.93356I$	$-8.37695 - 4.94972I$
$u = 0.732410 - 1.178280I$ $a = -1.00000$ $b = -0.993133 - 0.472371I$	$-4.86730 - 3.93356I$	$-8.37695 + 4.94972I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_5	$(u^7 - u^6 + \dots - u + 1)(u^{14} + u^{13} + \dots + u + 1)$ $\cdot (u^{24} - u^{23} + \dots + 12u + 1)$
c_2, c_7	$(u^7 + u^6 + \dots - u - 1)(u^{14} + u^{13} + \dots + u + 1)$ $\cdot (u^{24} - u^{23} + \dots + 12u + 1)$
c_3, c_6	$(u^7 + u^5 + u^4 + 2u^3 - 1)(u^{14} + 3u^{12} + \dots + 2u + 1)$ $\cdot (u^{24} - 3u^{23} + \dots - 6u + 19)$
c_4	$(u^4 + u^3 + 3u^2 + 2u + 1)^6(u^7 + 4u^5 + 4u^3 - u^2 - 1)$ $\cdot (u^{14} - 7u^{13} + \dots - 56u + 8)$
c_8, c_9	$(u^4 + u^3 + 3u^2 + 2u + 1)^6(u^7 + 4u^5 + 4u^3 + u^2 + 1)$ $\cdot (u^{14} - 7u^{13} + \dots - 56u + 8)$
c_{10}	$(u^3 + u^2 - 1)^8(u^7 - 2u^6 + u^5 + 2u^4 - 2u^3 + 1)$ $\cdot (u^{14} - 13u^{13} + \dots - 128u + 16)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_5 c_7	$(y^7 - 7y^6 + 21y^5 - 33y^4 + 29y^3 - 16y^2 + 5y - 1)$ $\cdot (y^{14} - 15y^{13} + \dots + 7y + 1)(y^{24} - 21y^{23} + \dots + 220y + 1)$
c_3, c_6	$(y^7 + 2y^6 + \dots + 2y^2 - 1)(y^{14} + 6y^{13} + \dots - 4y + 1)$ $\cdot (y^{24} + 7y^{23} + \dots + 5436y + 361)$
c_4, c_8, c_9	$(y^4 + 5y^3 + 7y^2 + 2y + 1)^6$ $\cdot (y^7 + 8y^6 + 24y^5 + 32y^4 + 16y^3 - y^2 - 2y - 1)$ $\cdot (y^{14} + 13y^{13} + \dots - 32y + 64)$
c_{10}	$(y^3 - y^2 + 2y - 1)^8(y^7 - 2y^6 + 5y^5 - 8y^4 + 8y^3 - 4y^2 - 1)$ $\cdot (y^{14} - 3y^{13} + \dots - 128y + 256)$