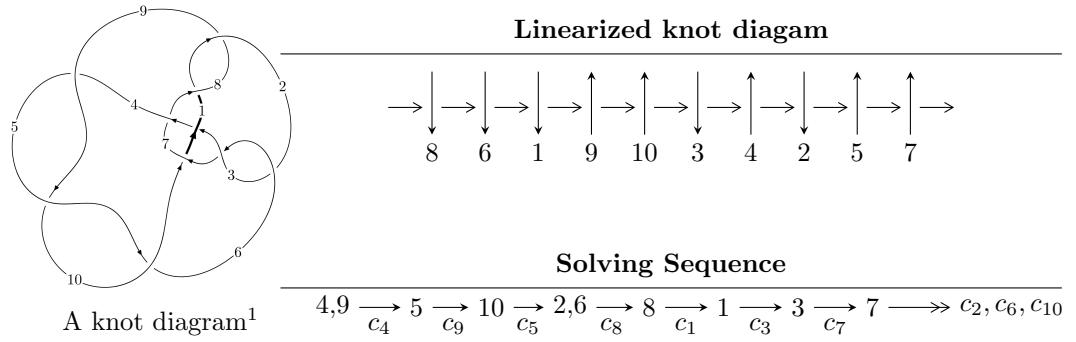


10₁₀₄ ($K10a_{118}$)



Ideals for irreducible components² of X_{par}

$$\begin{aligned}
 I_1^u &= \langle -u^{14} - 11u^{13} + \dots + 4b - 20, 41u^{14} + 221u^{13} + \dots + 8a + 196, \\
 &\quad u^{15} + 7u^{14} + 18u^{13} + 20u^{12} + 14u^{11} + 31u^{10} + 55u^9 + 44u^8 + 40u^7 + 54u^6 + 31u^5 + 9u^4 + 7u^3 - 6u^2 + 8 \rangle \\
 I_2^u &= \langle 109a^5u^4 + 90a^4u^4 + \dots - 83a + 145, -2a^4u^4 - 5u^4a^3 + \dots - 18a - 1, u^5 - u^4 - 2u^3 + u^2 + u + 1 \rangle \\
 I_3^u &= \langle -u^4 + u^3 + 2u^2 + b - u, u^6 + u^5 - 4u^4 - 4u^3 + 3u^2 + a + 3u + 1, u^7 - 4u^5 - u^4 + 4u^3 + 2u^2 - 1 \rangle
 \end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 52 representations.

¹The image of knot diagram is generated by the software “**Draw programme**” developed by Andrew Bartholomew(<http://www.layer8.co.uk/math/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.

$$\text{I. } I_1^u = \langle -u^{14} - 11u^{13} + \dots + 4b - 20, 41u^{14} + 221u^{13} + \dots + 8a + 196, u^{15} + 7u^{14} + \dots - 6u^2 + 8 \rangle$$

(i) **Arc colorings**

$$\begin{aligned} a_4 &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_9 &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_5 &= \begin{pmatrix} 1 \\ -u^2 \end{pmatrix} \\ a_{10} &= \begin{pmatrix} u \\ -u^3 + u \end{pmatrix} \\ a_2 &= \begin{pmatrix} -5.12500u^{14} - 27.6250u^{13} + \dots + 15.5000u - 24.5000 \\ \frac{1}{4}u^{14} + \frac{11}{4}u^{13} + \dots - \frac{9}{2}u + 5 \end{pmatrix} \\ a_6 &= \begin{pmatrix} -u^2 + 1 \\ u^4 - 2u^2 \end{pmatrix} \\ a_8 &= \begin{pmatrix} 3u^{14} + \frac{33}{2}u^{13} + \dots - 10u + \frac{31}{2} \\ \frac{3}{2}u^{14} + 7u^{13} + \dots + \frac{1}{2}u + 4 \end{pmatrix} \\ a_1 &= \begin{pmatrix} -8u^{14} - \frac{179}{4}u^{13} + \dots + \frac{125}{4}u - 44 \\ \frac{17}{4}u^{14} + \frac{97}{4}u^{13} + \dots - 19u + 26 \end{pmatrix} \\ a_3 &= \begin{pmatrix} \frac{53}{8}u^{14} + \frac{301}{8}u^{13} + \dots - 26u + \frac{77}{2} \\ -\frac{15}{4}u^{14} - \frac{89}{4}u^{13} + \dots + \frac{47}{2}u - 27 \end{pmatrix} \\ a_7 &= \begin{pmatrix} \frac{3}{2}u^{14} + \frac{19}{2}u^{13} + \dots - \frac{21}{2}u + \frac{23}{2} \\ \frac{3}{2}u^{14} + 7u^{13} + \dots + \frac{1}{2}u + 4 \end{pmatrix} \end{aligned}$$

(ii) **Obstruction class** = -1

$$(iii) \text{ Cusp Shapes} = 10u^{14} + 59u^{13} + 113u^{12} + 66u^{11} + 54u^{10} + 245u^9 + 267u^8 + 113u^7 + 251u^6 + 241u^5 + 11u^4 + 66u^3 - 7u^2 - 60u + 74$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_6 c_8	$u^{15} + u^{14} + \cdots - 3u^3 - 1$
c_3	$u^{15} - 12u^{14} + \cdots + 240u - 32$
c_4, c_5, c_9	$u^{15} + 7u^{14} + \cdots - 6u^2 + 8$
c_7, c_{10}	$u^{15} - 3u^{13} + \cdots + u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6 c_8	$y^{15} - 9y^{14} + \cdots + 4y^2 - 1$
c_3	$y^{15} - 4y^{14} + \cdots - 1280y - 1024$
c_4, c_5, c_9	$y^{15} - 13y^{14} + \cdots + 96y - 64$
c_7, c_{10}	$y^{15} - 6y^{14} + \cdots + 13y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.388466 + 0.947688I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 0.050943 - 1.350340I$	$-5.82203 + 9.38410I$	$-3.97952 - 7.17475I$
$b = -0.47742 - 1.71628I$		
$u = 0.388466 - 0.947688I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 0.050943 + 1.350340I$	$-5.82203 - 9.38410I$	$-3.97952 + 7.17475I$
$b = -0.47742 + 1.71628I$		
$u = -0.101121 + 0.829275I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 0.467120 + 0.846136I$	$-1.32635 + 1.58430I$	$2.05695 - 3.17357I$
$b = -0.108197 + 1.248190I$		
$u = -0.101121 - 0.829275I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 0.467120 - 0.846136I$	$-1.32635 - 1.58430I$	$2.05695 + 3.17357I$
$b = -0.108197 - 1.248190I$		
$u = 0.922792 + 0.829091I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.839212 + 0.446521I$	$-4.34026 - 3.41455I$	$-3.26031 + 4.30453I$
$b = 0.265387 + 1.302840I$		
$u = 0.922792 - 0.829091I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.839212 - 0.446521I$	$-4.34026 + 3.41455I$	$-3.26031 - 4.30453I$
$b = 0.265387 - 1.302840I$		
$u = 0.528410 + 0.302526I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 0.715576 + 0.595124I$	$1.036950 + 0.848562I$	$5.31510 - 2.72513I$
$b = 0.246839 - 0.030877I$		
$u = 0.528410 - 0.302526I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 0.715576 - 0.595124I$	$1.036950 - 0.848562I$	$5.31510 + 2.72513I$
$b = 0.246839 + 0.030877I$		
$u = -1.38123 + 0.42191I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.521626 - 0.558152I$	$2.89422 - 6.37595I$	$2.35312 + 7.90831I$
$b = 1.14450 - 1.53934I$		
$u = -1.38123 - 0.42191I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.521626 + 0.558152I$	$2.89422 + 6.37595I$	$2.35312 - 7.90831I$
$b = 1.14450 + 1.53934I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.48635 + 0.07152I$		
$a = 0.098561 - 0.589973I$	$7.67422 - 2.17377I$	$7.19312 + 2.21789I$
$b = 0.379744 - 0.426871I$		
$u = -1.48635 - 0.07152I$		
$a = 0.098561 + 0.589973I$	$7.67422 + 2.17377I$	$7.19312 - 2.21789I$
$b = 0.379744 + 0.426871I$		
$u = -1.49023 + 0.36505I$		
$a = 0.758806 + 0.630997I$	$0.18522 - 14.10710I$	$-0.21037 + 7.77333I$
$b = -1.13261 + 1.70886I$		
$u = -1.49023 - 0.36505I$		
$a = 0.758806 - 0.630997I$	$0.18522 + 14.10710I$	$-0.21037 - 7.77333I$
$b = -1.13261 - 1.70886I$		
$u = -1.76149$		
$a = -0.460333$	5.97579	-5.93620
$b = 0.363500$		

$$\text{II. } I_2^u = \langle 109a^5u^4 + 90a^4u^4 + \cdots - 83a + 145, -2a^4u^4 - 5u^4a^3 + \cdots - 18a - 1, u^5 - u^4 - 2u^3 + u^2 + u + 1 \rangle$$

(i) **Arc colorings**

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} a \\ -0.947826a^5u^4 - 0.782609a^4u^4 + \cdots + 0.721739a - 1.26087 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^2 + 1 \\ u^4 - 2u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} a^2u \\ 1.56522a^5u^4 - 0.278261a^4u^4 + \cdots - 0.547826a + 0.973913 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -a^3u^2 + a \\ -0.504348a^5u^4 - 1.63478a^4u^4 + \cdots + 0.556522a - 0.278261 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1.39130a^5u^4 + 0.330435a^4u^4 + \cdots + 1.71304a + 0.843478 \\ -1.23478a^5u^4 - 0.678261a^4u^4 + \cdots + 0.452174a + 0.373913 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -1.56522a^5u^4 + 0.278261a^4u^4 + \cdots + 0.547826a - 0.973913 \\ 1.56522a^5u^4 - 0.278261a^4u^4 + \cdots - 0.547826a + 0.973913 \end{pmatrix}$$

(ii) **Obstruction class** = -1

(iii) **Cusp Shapes** = $\frac{232}{115}a^5u^4 + \frac{752}{115}a^4u^4 + \cdots - \frac{256}{115}a - \frac{102}{115}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_6 c_8	$u^{30} - u^{29} + \cdots - 64u - 7$
c_3	$(u^3 + u^2 - 1)^{10}$
c_4, c_5, c_9	$(u^5 - u^4 - 2u^3 + u^2 + u + 1)^6$
c_7, c_{10}	$u^{30} - 3u^{29} + \cdots - 14u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6 c_8	$y^{30} - 21y^{29} + \cdots - 1884y + 49$
c_3	$(y^3 - y^2 + 2y - 1)^{10}$
c_4, c_5, c_9	$(y^5 - 5y^4 + 8y^3 - 3y^2 - y - 1)^6$
c_7, c_{10}	$y^{30} + 7y^{29} + \cdots - 116y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.21774$		
$a = -0.806664 + 0.705849I$	$0.49041 + 2.82812I$	$-1.00910 - 2.97945I$
$b = 0.41170 + 1.41665I$		
$u = -1.21774$		
$a = -0.806664 - 0.705849I$	$0.49041 - 2.82812I$	$-1.00910 + 2.97945I$
$b = 0.41170 - 1.41665I$		
$u = -1.21774$		
$a = 1.23353$	-3.64718	-7.53840
$b = -2.05678$		
$u = -1.21774$		
$a = 0.671225 + 0.117277I$	$0.49041 + 2.82812I$	$-1.00910 - 2.97945I$
$b = -0.96834 + 1.96626I$		
$u = -1.21774$		
$a = 0.671225 - 0.117277I$	$0.49041 - 2.82812I$	$-1.00910 + 2.97945I$
$b = -0.96834 - 1.96626I$		
$u = -1.21774$		
$a = -1.59237$	-3.64718	-7.53840
$b = 0.582023$		
$u = -0.309916 + 0.549911I$		
$a = -1.25942 + 0.90741I$	-1.58157 - 4.35870I	-1.97513 + 7.41010I
$b = -0.129260 - 0.273797I$		
$u = -0.309916 + 0.549911I$		
$a = 1.21172 + 1.02695I$	-1.58157 + 1.29754I	-1.97513 + 1.45120I
$b = -0.218320 + 1.108690I$		
$u = -0.309916 + 0.549911I$		
$a = 0.048773 + 0.350100I$	-1.58157 + 1.29754I	-1.97513 + 1.45120I
$b = -0.820174 + 0.651930I$		
$u = -0.309916 + 0.549911I$		
$a = -0.37583 - 1.80799I$	-1.58157 - 4.35870I	-1.97513 + 7.41010I
$b = 0.54889 - 1.72674I$		

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.309916 + 0.549911I$		
$a = -0.96996 - 1.69646I$	$-5.71916 - 1.53058I$	$-8.50440 + 4.43065I$
$b = -0.67455 - 1.32965I$		
$u = -0.309916 + 0.549911I$		
$a = 0.47350 + 2.32765I$	$-5.71916 - 1.53058I$	$-8.50440 + 4.43065I$
$b = -0.145272 + 1.011820I$		
$u = -0.309916 - 0.549911I$		
$a = -1.25942 - 0.90741I$	$-1.58157 + 4.35870I$	$-1.97513 - 7.41010I$
$b = -0.129260 + 0.273797I$		
$u = -0.309916 - 0.549911I$		
$a = 1.21172 - 1.02695I$	$-1.58157 - 1.29754I$	$-1.97513 - 1.45120I$
$b = -0.218320 - 1.108690I$		
$u = -0.309916 - 0.549911I$		
$a = 0.048773 - 0.350100I$	$-1.58157 - 1.29754I$	$-1.97513 - 1.45120I$
$b = -0.820174 - 0.651930I$		
$u = -0.309916 - 0.549911I$		
$a = -0.37583 + 1.80799I$	$-1.58157 + 4.35870I$	$-1.97513 - 7.41010I$
$b = 0.54889 + 1.72674I$		
$u = -0.309916 - 0.549911I$		
$a = -0.96996 + 1.69646I$	$-5.71916 + 1.53058I$	$-8.50440 - 4.43065I$
$b = -0.67455 + 1.32965I$		
$u = -0.309916 - 0.549911I$		
$a = 0.47350 - 2.32765I$	$-5.71916 + 1.53058I$	$-8.50440 - 4.43065I$
$b = -0.145272 - 1.011820I$		
$u = 1.41878 + 0.21917I$		
$a = -0.837994 + 0.477676I$	$3.96189 + 7.22895I$	$2.25407 - 6.47803I$
$b = 1.48326 + 1.70876I$		
$u = 1.41878 + 0.21917I$		
$a = -0.265271 - 0.909026I$	$3.96189 + 7.22895I$	$2.25407 - 6.47803I$
$b = -0.218527 - 0.470543I$		

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.41878 + 0.21917I$		
$a = 0.772271 - 0.730462I$	$-0.17569 + 4.40083I$	$-4.27520 - 3.49859I$
$b = -0.335807 - 1.278970I$		
$u = 1.41878 + 0.21917I$		
$a = 0.696565 - 0.364337I$	$3.96189 + 1.57271I$	$2.25407 - 0.51914I$
$b = -1.33013 - 0.90847I$		
$u = 1.41878 + 0.21917I$		
$a = -0.666236 + 0.232053I$	$-0.17569 + 4.40083I$	$-4.27520 - 3.49859I$
$b = -0.10143 + 1.90226I$		
$u = 1.41878 + 0.21917I$		
$a = 0.486743 + 0.419449I$	$3.96189 + 1.57271I$	$2.25407 - 0.51914I$
$b = -0.264664 + 0.140760I$		
$u = 1.41878 - 0.21917I$		
$a = -0.837994 - 0.477676I$	$3.96189 - 7.22895I$	$2.25407 + 6.47803I$
$b = 1.48326 - 1.70876I$		
$u = 1.41878 - 0.21917I$		
$a = -0.265271 + 0.909026I$	$3.96189 - 7.22895I$	$2.25407 + 6.47803I$
$b = -0.218527 + 0.470543I$		
$u = 1.41878 - 0.21917I$		
$a = 0.772271 + 0.730462I$	$-0.17569 - 4.40083I$	$-4.27520 + 3.49859I$
$b = -0.335807 + 1.278970I$		
$u = 1.41878 - 0.21917I$		
$a = 0.696565 + 0.364337I$	$3.96189 - 1.57271I$	$2.25407 + 0.51914I$
$b = -1.33013 + 0.90847I$		
$u = 1.41878 - 0.21917I$		
$a = -0.666236 - 0.232053I$	$-0.17569 - 4.40083I$	$-4.27520 + 3.49859I$
$b = -0.10143 - 1.90226I$		
$u = 1.41878 - 0.21917I$		
$a = 0.486743 - 0.419449I$	$3.96189 - 1.57271I$	$2.25407 + 0.51914I$
$b = -0.264664 - 0.140760I$		

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

(i) **Arc colorings**

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

(ii) **Obstruction class = 1**

(iii) **Cusp Shapes** = $-2u^6 + u^5 + 3u^4 + 3u^3 + 7u^2 - 5u - 8$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6 c_8	$y^7 - 7y^6 + 19y^5 - 29y^4 + 30y^3 - 19y^2 + 7y - 1$
c_3	$y^7 - 3y^6 + 7y^5 - 13y^4 + 6y^3 - 2y^2 + 4y - 1$
c_4, c_5, c_9	$y^7 - 8y^6 + 24y^5 - 33y^4 + 20y^3 - 6y^2 + 4y - 1$
c_7, c_{10}	$y^7 - 4y^5 - y^4 + 4y^3 + 2y^2 - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.25920$		
$a = 1.35619$	-2.88904	5.52810
$b = -1.39446$		
$u = -0.401963 + 0.546430I$		
$a = 1.019580 + 0.650467I$	$-2.11479 + 2.13385I$	$-6.73578 - 5.40456I$
$b = -0.59726 + 1.44367I$		
$u = -0.401963 - 0.546430I$		
$a = 1.019580 - 0.650467I$	$-2.11479 - 2.13385I$	$-6.73578 + 5.40456I$
$b = -0.59726 - 1.44367I$		
$u = -1.346460 + 0.204423I$		
$a = -0.556014 - 0.539828I$	$1.45010 - 4.82255I$	$1.50641 + 5.81707I$
$b = 0.21748 - 1.74792I$		
$u = -1.346460 - 0.204423I$		
$a = -0.556014 + 0.539828I$	$1.45010 + 4.82255I$	$1.50641 - 5.81707I$
$b = 0.21748 + 1.74792I$		
$u = 0.552010$		
$a = -2.60549$	-5.57629	-7.84920
$b = -0.132774$		
$u = 1.68564$		
$a = 0.322173$	6.50483	9.77980
$b = -0.713207$		

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$(u^7 - u^6 + \dots - u + 1)(u^{15} + u^{14} + \dots - 3u^3 - 1)$ $\cdot (u^{30} - u^{29} + \dots - 64u - 7)$
c_2, c_8	$(u^7 + u^6 + \dots - u - 1)(u^{15} + u^{14} + \dots - 3u^3 - 1)$ $\cdot (u^{30} - u^{29} + \dots - 64u - 7)$
c_3	$(u^3 + u^2 - 1)^{10}(u^7 + 3u^6 + 3u^5 - u^4 - 4u^3 - 2u^2 + 1)$ $\cdot (u^{15} - 12u^{14} + \dots + 240u - 32)$
c_4, c_5	$(u^5 - u^4 - 2u^3 + u^2 + u + 1)^6(u^7 - 4u^5 - u^4 + 4u^3 + 2u^2 - 1)$ $\cdot (u^{15} + 7u^{14} + \dots - 6u^2 + 8)$
c_7, c_{10}	$(u^7 + u^4 - 2u^3 - 1)(u^{15} - 3u^{13} + \dots + u + 1)(u^{30} - 3u^{29} + \dots - 14u - 1)$
c_9	$(u^5 - u^4 - 2u^3 + u^2 + u + 1)^6(u^7 - 4u^5 + u^4 + 4u^3 - 2u^2 + 1)$ $\cdot (u^{15} + 7u^{14} + \dots - 6u^2 + 8)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6 c_8	$(y^7 - 7y^6 + 19y^5 - 29y^4 + 30y^3 - 19y^2 + 7y - 1)$ $\cdot (y^{15} - 9y^{14} + \cdots + 4y^2 - 1)(y^{30} - 21y^{29} + \cdots - 1884y + 49)$
c_3	$(y^3 - y^2 + 2y - 1)^{10}(y^7 - 3y^6 + 7y^5 - 13y^4 + 6y^3 - 2y^2 + 4y - 1)$ $\cdot (y^{15} - 4y^{14} + \cdots - 1280y - 1024)$
c_4, c_5, c_9	$(y^5 - 5y^4 + 8y^3 - 3y^2 - y - 1)^6$ $\cdot (y^7 - 8y^6 + 24y^5 - 33y^4 + 20y^3 - 6y^2 + 4y - 1)$ $\cdot (y^{15} - 13y^{14} + \cdots + 96y - 64)$
c_7, c_{10}	$(y^7 - 4y^5 - y^4 + 4y^3 + 2y^2 - 1)(y^{15} - 6y^{14} + \cdots + 13y - 1)$ $\cdot (y^{30} + 7y^{29} + \cdots - 116y + 1)$