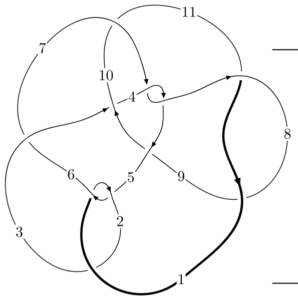
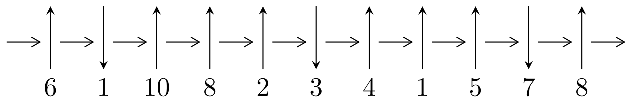
$11n_{87}$ ($K11n_{87}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{13} - u^{12} + 4u^{11} - 3u^{10} + 7u^9 - 6u^8 + 7u^7 - 7u^6 + 4u^5 - 5u^4 + 2u^3 - 2u^2 + b + 2u - 1,$$
$$- u^{15} + 3u^{14} + \cdots + 2a - 4u,\ u^{16} - 3u^{15} + \cdots - 6u + 2\rangle$$
$$I_2^u = \langle -u^6a - u^5a - 3u^4a + u^5 - 2u^3a + u^4 - 3u^2a + 3u^3 - 2au + 2u^2 + b - a + 3u + 2,$$
$$- 2u^7a + 2u^7 - 4u^5a + 2u^6 + 5u^5 - 3u^3a + 3u^4 - 2u^2a + 4u^3 + a^2 + 2au + 3u^2 - 2a - 2u,$$
$$u^8 + u^7 + 3u^6 + 2u^5 + 3u^4 + 2u^3 - 1\rangle$$
$$I_3^u = \langle b - 1,\ u^3 - 2u^2 + 2a - 2,\ u^4 + 2u^2 + 2\rangle$$

$$I_1^v = \langle a,\ b + 1,\ v + 1\rangle$$

* 4 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 37 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.

$$I_1^u = \langle u^{13}-u^{12}+\cdots+b-1,\ -u^{15}+3u^{14}+\cdots+2a-4u,\ u^{16}-3u^{15}+\cdots-6u+2\rangle$$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

$$a_1 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^3 \\ u^5 + u^3 + u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} \frac{1}{2}u^{15} - \frac{3}{2}u^{14} + \cdots - 3u^2 + 2u \\ -u^{13} + u^{12} + \cdots - 2u + 1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -\frac{1}{2}u^{15} + \frac{3}{2}u^{14} + \cdots - 3u + 2 \\ u^{13} - u^{12} + \cdots + u - 1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -\frac{1}{2}u^{15} + \frac{3}{2}u^{14} + \cdots - 2u + 1 \\ u^{13} - u^{12} + \cdots + u - 1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -\frac{1}{2}u^{15} + \frac{3}{2}u^{14} + \cdots - 2u + 1 \\ -u^{15} + 2u^{14} + \cdots - 2u + 1 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -u^6 - u^4 + 1 \\ u^8 + 2u^6 + 2u^4 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -\frac{1}{2}u^{15} + \frac{3}{2}u^{14} + \cdots - 5u + 2 \\ u^{13} - u^{12} + \cdots + 3u - 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -\frac{1}{2}u^{15} + \frac{3}{2}u^{14} + \cdots - 5u + 2 \\ u^{13} - u^{12} + \cdots + 3u - 1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 2u^{14} - 6u^{13} + 16u^{12} - 24u^{11} + 38u^{10} - 40u^9 + 50u^8 - 42u^7 + 40u^6 - 30u^5 + 20u^4 - 18u^3 + 12u^2 - 14u + 12$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{16} - 3u^{15} + \cdots - 6u + 2$
c_2	$u^{16} + 9u^{15} + \cdots + 4u + 4$
c_3, c_4, c_7	$u^{16} - u^{15} + \cdots - 4u^2 + 1$
c_6	$u^{16} + 3u^{15} + \cdots - 22u + 10$
c_8, c_{11}	$u^{16} - 3u^{15} + \cdots - 8u + 1$
c_9	$u^{16} + u^{15} + \cdots + 2u^2 + 1$
c_{10}	$u^{16} + 14u^{15} + \cdots + 1024u + 256$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{16} + 9y^{15} + \cdots + 4y + 4$
c_2	$y^{16} - 3y^{15} + \cdots + 144y + 16$
c_3, c_4, c_7	$y^{16} - 3y^{15} + \cdots - 8y + 1$
c_6	$y^{16} - 15y^{15} + \cdots - 364y + 100$
c_8, c_{11}	$y^{16} + 29y^{15} + \cdots + 4y + 1$
c_9	$y^{16} + 33y^{15} + \cdots + 4y + 1$
c_{10}	$y^{16} - 12y^{15} + \cdots + 65536y + 65536$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.908785 + 0.099623I$ $a = -0.572641 - 0.673580I$ $b = 1.10609 - 0.91078I$	$-6.01654 - 7.18776I$	$5.49115 + 4.28840I$
$u = 0.908785 - 0.099623I$ $a = -0.572641 + 0.673580I$ $b = 1.10609 + 0.91078I$	$-6.01654 + 7.18776I$	$5.49115 - 4.28840I$
$u = -0.142689 + 1.132380I$ $a = 0.430492 + 1.197390I$ $b = 0.424706 + 0.862829I$	$-3.75188 + 0.61754I$	$-1.35608 - 1.57553I$
$u = -0.142689 - 1.132380I$ $a = 0.430492 - 1.197390I$ $b = 0.424706 - 0.862829I$	$-3.75188 - 0.61754I$	$-1.35608 + 1.57553I$
$u = -0.569839 + 0.991415I$ $a = -1.15783 - 1.20126I$ $b = 0.827978 - 0.641852I$	$-0.48607 - 7.00413I$	$4.93065 + 8.89860I$
$u = -0.569839 - 0.991415I$ $a = -1.15783 + 1.20126I$ $b = 0.827978 + 0.641852I$	$-0.48607 + 7.00413I$	$4.93065 - 8.89860I$
$u = 0.482015 + 1.060220I$ $a = -0.245187 + 0.549239I$ $b = 0.592760 - 0.123653I$	$-0.74617 + 3.29967I$	$2.58175 - 1.95258I$
$u = 0.482015 - 1.060220I$ $a = -0.245187 - 0.549239I$ $b = 0.592760 + 0.123653I$	$-0.74617 - 3.29967I$	$2.58175 + 1.95258I$
$u = -0.641580 + 0.478671I$ $a = 0.852394 + 0.173024I$ $b = -0.683716 - 0.565826I$	$0.96609 + 2.28706I$	$6.88422 - 4.18311I$
$u = -0.641580 - 0.478671I$ $a = 0.852394 - 0.173024I$ $b = -0.683716 + 0.565826I$	$0.96609 - 2.28706I$	$6.88422 + 4.18311I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.531551 + 0.451405I$ $a = 0.924124 + 0.014074I$ $b = -0.514524 - 0.293804I$	$1.066480 + 0.823485I$	$7.17691 - 4.58909I$
$u = 0.531551 - 0.451405I$ $a = 0.924124 - 0.014074I$ $b = -0.514524 + 0.293804I$	$1.066480 - 0.823485I$	$7.17691 + 4.58909I$
$u = 0.409686 + 1.284700I$ $a = -1.11380 + 0.89168I$ $b = -1.07939 + 0.99616I$	$-10.32590 - 2.59855I$	$1.50083 + 1.34763I$
$u = 0.409686 - 1.284700I$ $a = -1.11380 - 0.89168I$ $b = -1.07939 - 0.99616I$	$-10.32590 + 2.59855I$	$1.50083 - 1.34763I$
$u = 0.522071 + 1.247140I$ $a = 0.38245 - 2.21900I$ $b = -1.17390 - 0.90333I$	$-9.4923 + 12.3434I$	$2.79056 - 7.18778I$
$u = 0.522071 - 1.247140I$ $a = 0.38245 + 2.21900I$ $b = -1.17390 + 0.90333I$	$-9.4923 - 12.3434I$	$2.79056 + 7.18778I$

II. $I_2^u = \langle -u^6a - u^5a + \cdots - a + 2,\ -2u^7a + 2u^7 + \cdots + a^2 - 2a,\ u^8 + u^7 + 3u^6 + 2u^5 + 3u^4 + 2u^3 - 1\rangle$

(i) Arc colorings

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

(ii) Obstruction class $= -1$

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

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$(u^8 + u^7 + 3u^6 + 2u^5 + 3u^4 + 2u^3 - 1)^2$
c_2	$(u^8 + 5u^7 + 11u^6 + 10u^5 - u^4 - 10u^3 - 6u^2 + 1)^2$
c_3, c_4, c_7	$u^{16} - u^{15} + \cdots - 2u - 1$
c_6	$(u^8 - u^7 - 5u^6 + 4u^5 + 7u^4 - 4u^3 - 2u^2 + 2u - 1)^2$
c_8, c_{11}	$u^{16} - 5u^{15} + \cdots - 4u + 1$
c_9	$u^{16} + u^{15} + \cdots + 376u + 419$
c_{10}	$(u - 1)^{16}$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$(y^8 + 5y^7 + 11y^6 + 10y^5 - y^4 - 10y^3 - 6y^2 + 1)^2$
c_2	$(y^8 - 3y^7 + 19y^6 - 34y^5 + 71y^4 - 66y^3 + 34y^2 - 12y + 1)^2$
c_3, c_4, c_7	$y^{16} - 5y^{15} + \cdots - 4y + 1$
c_6	$(y^8 - 11y^7 + 47y^6 - 98y^5 + 103y^4 - 50y^3 + 6y^2 + 1)^2$
c_8, c_{11}	$y^{16} + 11y^{15} + \cdots - 88y + 1$
c_9	$y^{16} + 15y^{15} + \cdots - 846972y + 175561$
c_{10}	$(y - 1)^{16}$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.914675$ $a = -0.212645 + 0.481348I$ $b = 0.839959 + 1.056690I$	-6.88602	4.17790
$u = -0.914675$ $a = -0.212645 - 0.481348I$ $b = 0.839959 - 1.056690I$	-6.88602	4.17790
$u = -0.252896 + 0.819281I$ $a = 1.063650 - 0.266196I$ $b = -1.168220 - 0.139969I$	$2.79859 - 1.27532I$	$6.81947 + 5.08518I$
$u = -0.252896 + 0.819281I$ $a = 0.44780 - 2.90112I$ $b = 0.928039 - 0.286587I$	$2.79859 - 1.27532I$	$6.81947 + 5.08518I$
$u = -0.252896 - 0.819281I$ $a = 1.063650 + 0.266196I$ $b = -1.168220 + 0.139969I$	$2.79859 + 1.27532I$	$6.81947 - 5.08518I$
$u = -0.252896 - 0.819281I$ $a = 0.44780 + 2.90112I$ $b = 0.928039 + 0.286587I$	$2.79859 + 1.27532I$	$6.81947 - 5.08518I$
$u = 0.394459 + 1.112500I$ $a = -0.562009 - 0.850115I$ $b = -0.114249 - 0.439221I$	$-1.05533 + 3.63283I$	$1.57760 - 4.51802I$
$u = 0.394459 + 1.112500I$ $a = 0.101648 + 1.236760I$ $b = 1.123030 + 0.184302I$	$-1.05533 + 3.63283I$	$1.57760 - 4.51802I$
$u = 0.394459 - 1.112500I$ $a = -0.562009 + 0.850115I$ $b = -0.114249 + 0.439221I$	$-1.05533 - 3.63283I$	$1.57760 + 4.51802I$
$u = 0.394459 - 1.112500I$ $a = 0.101648 - 1.236760I$ $b = 1.123030 - 0.184302I$	$-1.05533 - 3.63283I$	$1.57760 + 4.51802I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.473514 + 1.273020I$ $a = -1.25140 - 0.85751I$ $b = -0.783945 - 1.141180I$	$-10.78260 - 4.93524I$	$1.01557 + 2.99422I$
$u = -0.473514 + 1.273020I$ $a = 0.21489 + 2.01964I$ $b = -0.93848 + 1.07490I$	$-10.78260 - 4.93524I$	$1.01557 + 2.99422I$
$u = -0.473514 - 1.273020I$ $a = -1.25140 + 0.85751I$ $b = -0.783945 + 1.141180I$	$-10.78260 + 4.93524I$	$1.01557 - 2.99422I$
$u = -0.473514 - 1.273020I$ $a = 0.21489 - 2.01964I$ $b = -0.93848 - 1.07490I$	$-10.78260 + 4.93524I$	$1.01557 - 2.99422I$
$u = 0.578577$ $a = 1.01161$ $b = -1.12958$	1.93558	4.99680
$u = 0.578577$ $a = 1.38452$ $b = 0.357319$	1.93558	4.99680

III. $I_3^u = \langle b-1,\ u^3-2u^2+2a-2,\ u^4+2u^2+2\rangle$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4u^2+4$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$(y^2 + 2y + 2)^2$
c_2	$(y^2 + 4)^2$
c_3, c_4, c_7 c_8, c_{11}	$(y - 1)^4$
c_6	$(y^2 - 2y + 2)^2$
c_9, c_{10}	$y^4 - 8y^3 + 18y^2 + 8y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.455090 + 1.098680I$ $a = 0.77689 + 1.32180I$ $b = 1.00000$	$0.82247 + 3.66386I$	$8.00000 - 4.00000I$
$u = 0.455090 - 1.098680I$ $a = 0.77689 - 1.32180I$ $b = 1.00000$	$0.82247 - 3.66386I$	$8.00000 + 4.00000I$
$u = -0.455090 + 1.098680I$ $a = -0.776887 - 0.678203I$ $b = 1.00000$	$0.82247 - 3.66386I$	$8.00000 + 4.00000I$
$u = -0.455090 - 1.098680I$ $a = -0.776887 + 0.678203I$ $b = 1.00000$	$0.82247 + 3.66386I$	$8.00000 - 4.00000I$

IV. $I_1^v = \langle a,\ b+1,\ v+1 \rangle$

(i) Arc colorings

$a_2 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$

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

$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$

$a_1 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$

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

$a_8 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$

$a_9 = \begin{pmatrix} -1 \\ -1 \end{pmatrix}$

$a_{10} = \begin{pmatrix} -2 \\ -1 \end{pmatrix}$

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

$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$

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

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 12$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_5 c_6	u
c_3, c_7, c_9 c_{10}, c_{11}	$u - 1$
c_4, c_8	$u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_5 c_6	y
c_3, c_4, c_7 c_8, c_9, c_{10} c_{11}	$y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$v = -1.00000$ $a = \quad 0$ $b = -1.00000$	3.28987	12.0000

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_5	$u(u^4+2u^2+2)(u^8+u^7+3u^6+2u^5+3u^4+2u^3-1)^2$ $\cdot(u^{16}-3u^{15}+\cdots-6u+2)$
c_2	$u(u^2+2u+2)^2(u^8+5u^7+11u^6+10u^5-u^4-10u^3-6u^2+1)^2$ $\cdot(u^{16}+9u^{15}+\cdots+4u+4)$
c_3, c_7	$(u-1)(u+1)^4(u^{16}-u^{15}+\cdots-2u-1)(u^{16}-u^{15}+\cdots-4u^2+1)$
c_4	$((u-1)^4)(u+1)(u^{16}-u^{15}+\cdots-2u-1)(u^{16}-u^{15}+\cdots-4u^2+1)$
c_6	$u(u^4-2u^2+2)(u^8-u^7-5u^6+4u^5+7u^4-4u^3-2u^2+2u-1)^2$ $\cdot(u^{16}+3u^{15}+\cdots-22u+10)$
c_8	$((u+1)^5)(u^{16}-5u^{15}+\cdots-4u+1)(u^{16}-3u^{15}+\cdots-8u+1)$
c_9	$(u-1)(u^4+4u^3+4u^2+1)(u^{16}+u^{15}+\cdots+376u+419)$ $\cdot(u^{16}+u^{15}+\cdots+2u^2+1)$
c_{10}	$((u-1)^{17})(u^4-4u^3+4u^2+1)(u^{16}+14u^{15}+\cdots+1024u+256)$
c_{11}	$((u-1)^5)(u^{16}-5u^{15}+\cdots-4u+1)(u^{16}-3u^{15}+\cdots-8u+1)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y(y^2+2y+2)^2(y^8+5y^7+11y^6+10y^5-y^4-10y^3-6y^2+1)^2$ $\cdot(y^{16}+9y^{15}+\cdots+4y+4)$
c_2	$y(y^2+4)^2$ $\cdot(y^8-3y^7+19y^6-34y^5+71y^4-66y^3+34y^2-12y+1)^2$ $\cdot(y^{16}-3y^{15}+\cdots+144y+16)$
c_3, c_4, c_7	$((y-1)^5)(y^{16}-5y^{15}+\cdots-4y+1)(y^{16}-3y^{15}+\cdots-8y+1)$
c_6	$y(y^2-2y+2)^2$ $\cdot(y^8-11y^7+47y^6-98y^5+103y^4-50y^3+6y^2+1)^2$ $\cdot(y^{16}-15y^{15}+\cdots-364y+100)$
c_8, c_{11}	$((y-1)^5)(y^{16}+11y^{15}+\cdots-88y+1)(y^{16}+29y^{15}+\cdots+4y+1)$
c_9	$(y-1)(y^4-8y^3+18y^2+8y+1)$ $\cdot(y^{16}+15y^{15}+\cdots-846972y+175561)(y^{16}+33y^{15}+\cdots+4y+1)$
c_{10}	$(y-1)^{17}(y^4-8y^3+18y^2+8y+1)$ $\cdot(y^{16}-12y^{15}+\cdots+65536y+65536)$