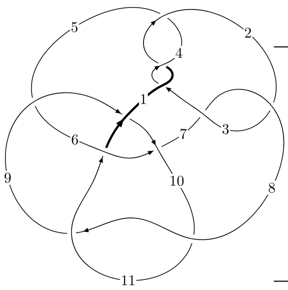
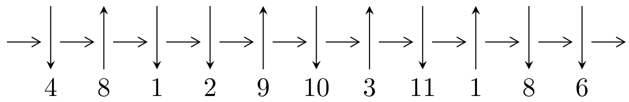
$11n_{151}$ ($K11n_{151}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle &-u^9 + 4u^8 - 5u^7 - 2u^6 + 9u^5 - 4u^4 - 4u^3 + 4u^2 + b - u, \\
&u^9 - 4u^8 + 4u^7 + 6u^6 - 13u^5 + 12u^3 - 2u^2 + a - 5u, \\
&u^{11} - 5u^{10} + 8u^9 + 3u^8 - 22u^7 + 14u^6 + 18u^5 - 19u^4 - 7u^3 + 7u^2 + 2u + 1\rangle \\
I_2^u = \langle &-u^4 + u^3 + u^2 + b - 1,\ a,\ u^5 - u^4 - 2u^3 + u^2 + u + 1\rangle \\
I_3^u = \langle &a^4 + 2a^2 + b + 2,\ a^5 + a^4 + 2a^3 + a^2 + a + 1,\ u + 1\rangle \\
I_4^u = \langle &-u^7 + u^6 - u^5 - 2u^4 + u^3 + 4b + 5u + 1, \\
&-9u^9 + 17u^8 - 44u^7 + 5u^6 - 38u^5 - 78u^4 - 4u^3 - 207u^2 + 16a + 7u - 113, \\
&u^{10} - 2u^9 + 5u^8 - u^7 + 3u^6 + 8u^5 - 2u^4 + 19u^3 - 6u^2 + 8u - 1\rangle
\end{aligned}$$

* 4 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 31 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.

$$\boldsymbol{I_1^u = \langle -u^9+4u^8+\cdots+b-u,\ u^9-4u^8+\cdots+a-5u,\ u^{11}-5u^{10}+\cdots+2u+1\rangle}$$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^9+4u^8-4u^7-6u^6+13u^5-12u^3+2u^2+5u \\ u^9-4u^8+5u^7+2u^6-9u^5+4u^4+4u^3-4u^2+u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u \\ -u^3+u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u^9+4u^8-4u^7-6u^6+13u^5-12u^3+2u^2+5u \\ -u^{10}+5u^9-7u^8-4u^7+16u^6-3u^5-13u^4+2u^3+3u^2+3u+1 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^2-1 \\ u^4-2u^3+2u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u^4-2u^3+u^2+2u-1 \\ u^4-2u^3+2u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^{10}+4u^9-5u^8-4u^7+14u^6-6u^5-11u^4+8u^3+3u^2-2u+1 \\ -u^{10}+4u^9-4u^8-6u^7+13u^6-12u^4+2u^3+5u^2 \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} u^{10}-4u^9+5u^8+4u^7-14u^6+6u^5+11u^4-8u^3-3u^2+2u-1 \\ u^{10}-3u^9-u^8+14u^7-12u^6-15u^5+21u^4+6u^3-11u^2-u-1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u^{10}-4u^9+5u^8+4u^7-14u^6+6u^5+11u^4-8u^3-3u^2+2u-1 \\ u^{10}-3u^9-u^8+14u^7-12u^6-15u^5+21u^4+6u^3-11u^2-u-1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes

$= 4u^{10}-16u^9+20u^8+8u^7-24u^6-16u^5+28u^4+32u^3-28u^2-24u-6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_4 c_8, c_{10}	$u^{11} - 5u^{10} + \cdots + 2u + 1$
c_2, c_7, c_9	$u^{11} + u^{10} + \cdots + 2u + 1$
c_5	$u^{11} - u^{10} + 3u^8 + 12u^7 + 10u^6 - 6u^5 - 33u^4 - 31u^3 - 33u^2 - 10u - 11$
c_6	$u^{11} + u^{10} + \cdots - 33u^2 - 27$
c_{11}	$u^{11} - u^{10} + u^8 + 8u^7 - 12u^6 + 8u^5 + 3u^4 + 3u^3 - 3u^2 + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_4 c_8, c_{10}	$y^{11} - 9y^{10} + \cdots - 10y - 1$
c_2, c_7, c_9	$y^{11} - 9y^{10} + \cdots - 2y - 1$
c_5	$y^{11} - y^{10} + \cdots - 626y - 121$
c_6	$y^{11} + 15y^{10} + \cdots - 1782y - 729$
c_{11}	$y^{11} - y^{10} + \cdots + 6y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.07566$ $a=-0.382088$ $b=-6.69648$	-3.78211	32.5960
$u=-0.832306+0.202239I$ $a=-0.362795+0.658644I$ $b=-1.76349-0.21001I$	$-2.76312+1.08944I$	$-13.75530+1.30535I$
$u=-0.832306-0.202239I$ $a=-0.362795-0.658644I$ $b=-1.76349+0.21001I$	$-2.76312-1.08944I$	$-13.75530-1.30535I$
$u=1.263210+0.139301I$ $a=0.158505-0.711489I$ $b=0.009586+0.293616I$	$-8.16883-4.71969I$	$-15.8344+7.6612I$
$u=1.263210-0.139301I$ $a=0.158505+0.711489I$ $b=0.009586-0.293616I$	$-8.16883+4.71969I$	$-15.8344-7.6612I$
$u=1.31469+0.95832I$ $a=-0.606321+1.088860I$ $b=-0.10260-1.75202I$	$7.84139-5.06071I$	$-4.48302+2.40182I$
$u=1.31469-0.95832I$ $a=-0.606321-1.088860I$ $b=-0.10260+1.75202I$	$7.84139+5.06071I$	$-4.48302-2.40182I$
$u=-0.113634+0.293281I$ $a=-1.09164+1.49222I$ $b=0.322788+0.550650I$	$0.003691+1.266700I$	$-0.27668-5.30833I$
$u=-0.113634-0.293281I$ $a=-1.09164-1.49222I$ $b=0.322788-0.550650I$	$0.003691-1.266700I$	$-0.27668+5.30833I$
$u=1.40586+1.00997I$ $a=0.593293-1.135200I$ $b=0.38195+1.94651I$	$7.4453-12.4339I$	$-4.94880+5.95992I$

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u =$	$1.40586 - 1.00997I$		
$a =$	$0.593293 + 1.135200I$	$7.4453 + 12.4339I$	$-4.94880 - 5.95992I$
$b =$	$0.38195 - 1.94651I$		

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

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

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.21774$ $a = 0$ $b = 3.52181$	-4.04602	-15.9650
$u = -0.309916 + 0.549911I$ $a = 0$ $b = 0.881366 + 0.489365I$	$-1.97403 + 1.53058I$	$-3.57269 - 4.45807I$
$u = -0.309916 - 0.549911I$ $a = 0$ $b = 0.881366 - 0.489365I$	$-1.97403 - 1.53058I$	$-3.57269 + 4.45807I$
$u = 1.41878 + 0.21917I$ $a = 0$ $b = -0.142272 + 0.509071I$	$-7.51750 - 4.40083I$	$-3.44484 + 1.78781I$
$u = 1.41878 - 0.21917I$ $a = 0$ $b = -0.142272 - 0.509071I$	$-7.51750 + 4.40083I$	$-3.44484 - 1.78781I$

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

(i) Arc colorings

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

$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} a \\ -a^4 - 2a^2 - 2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} a \\ -a^4 - 2a^2 + a - 2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} a^2 \\ a^4 + a^2 - a \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} -a^4 \\ 0 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} a^2 \\ a^4 + a^2 - a \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -a^4 \\ -a^4 - 2a^2 - 2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -a^4 \\ -a^4 - 2a^2 - 2 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4a^4 - 3a^3 - 11a^2 - 2a - 11$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.00000$ $a = \quad 0.339110 + 0.822375I$ $b = -0.881366 - 0.489365I$	$-1.97403 + 1.53058I$	$-3.57269 - 4.45807I$
$u = -1.00000$ $a = \quad 0.339110 - 0.822375I$ $b = -0.881366 + 0.489365I$	$-1.97403 - 1.53058I$	$-3.57269 + 4.45807I$
$u = -1.00000$ $a = -0.766826$ $b = -3.52181$	-4.04602	-15.9650
$u = -1.00000$ $a = -0.455697 + 1.200150I$ $b = \quad 0.142272 - 0.509071I$	$-7.51750 - 4.40083I$	$-3.44484 + 1.78781I$
$u = -1.00000$ $a = -0.455697 - 1.200150I$ $b = \quad 0.142272 + 0.509071I$	$-7.51750 + 4.40083I$	$-3.44484 - 1.78781I$

IV. $I_4^u = \langle -u^7 + u^6 - u^5 - 2u^4 + u^3 + 4b + 5u + 1,\ -9u^9 + 17u^8 + \cdots + 16a - 113,\ u^{10} - 2u^9 + \cdots + 8u - 1\rangle$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 0.562500u^9 - 1.06250u^8 + \cdots - 0.437500u + 7.06250 \\ \frac{1}{4}u^7 - \frac{1}{4}u^6 + \cdots - \frac{5}{4}u - \frac{1}{4} \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 0.562500u^9 - 1.06250u^8 + \cdots - 0.437500u + 7.06250 \\ 0.0625000u^9 - 0.0625000u^8 + \cdots - 1.18750u - 0.187500 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -\frac{3}{2}u^9 + \frac{19}{8}u^8 + \cdots + u - \frac{53}{8} \\ 0.312500u^9 - 0.437500u^8 + \cdots + 0.0625000u + 0.437500 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -1.18750u^9 + 1.93750u^8 + \cdots + 1.06250u - 6.18750 \\ 0.312500u^9 - 0.437500u^8 + \cdots + 0.0625000u + 0.437500 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -\frac{1}{4}u^9 + \frac{1}{2}u^8 + \cdots + \frac{3}{2}u - \frac{13}{4} \\ \frac{1}{4}u^8 - \frac{1}{2}u^7 + \cdots + u + \frac{1}{4} \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u^9 + \frac{11}{8}u^8 + \cdots - \frac{5}{2}u - \frac{45}{8} \\ -0.437500u^9 + 0.312500u^8 + \cdots + 5.31250u - 0.312500 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} \frac{1}{4}u^9 - \frac{1}{2}u^8 + \cdots - \frac{3}{2}u + \frac{13}{4} \\ -\frac{1}{4}u^8 + \frac{1}{4}u^7 + \cdots + \frac{5}{4}u^2 + \frac{1}{4}u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} \frac{1}{4}u^9 - \frac{1}{2}u^8 + \cdots - \frac{3}{2}u + \frac{13}{4} \\ -\frac{1}{4}u^8 + \frac{1}{4}u^7 + \cdots + \frac{5}{4}u^2 + \frac{1}{4}u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{1}{4}u^9 + \frac{7}{8}u^8 - \frac{9}{4}u^7 + 2u^6 - \frac{3}{8}u^5 - \frac{23}{8}u^4 + \frac{33}{8}u^3 - \frac{35}{8}u^2 + \frac{31}{4}u - \frac{37}{8}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_4 c_8, c_{10}	$u^{10} - 2u^9 + 5u^8 - u^7 + 3u^6 + 8u^5 - 2u^4 + 19u^3 - 6u^2 + 8u - 1$
c_2, c_7, c_9	$u^{10} + u^9 + \cdots + 160u + 32$
c_5	$u^{10} - 10u^8 + 43u^6 + 17u^5 - 35u^4 + 46u^3 + 64u^2 - 38u - 29$
c_6	$u^{10} + 2u^9 + \cdots - 100u - 43$
c_{11}	$(u^5 - u^4 + u^2 + u - 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_4 c_8, c_{10}	$y^{10} + 6y^9 + \cdots - 52y + 1$
c_2, c_7, c_9	$y^{10} - 21y^9 + \cdots - 9728y + 1024$
c_5	$y^{10} - 20y^9 + \cdots - 5156y + 841$
c_6	$y^{10} + 20y^9 + \cdots - 13440y + 1849$
c_{11}	$(y^5 - y^4 + 4y^3 - 3y^2 + 3y - 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.394402+1.113210I$ $a=-0.721708-0.484512I$ $b=-0.233677+0.885557I$	$0.17487+2.21397I$	$-2.88087-4.04855I$
$u=-0.394402-1.113210I$ $a=-0.721708+0.484512I$ $b=-0.233677-0.885557I$	$0.17487-2.21397I$	$-2.88087+4.04855I$
$u=\ 0.124008+0.699342I$ $a=\ 1.91026+1.28243I$ $b=-0.233677-0.885557I$	$0.17487-2.21397I$	$-2.88087+4.04855I$
$u=\ 0.124008-0.699342I$ $a=\ 1.91026-1.28243I$ $b=-0.233677+0.885557I$	$0.17487+2.21397I$	$-2.88087-4.04855I$
$u=-1.30598$ $a=-0.276456$ $b=-0.416284$	-2.52712	-3.66490
$u=\ 0.93349+1.31744I$ $a=-0.80555+1.36977I$ $b=-0.05818-1.69128I$	$9.31336-3.33174I$	$-3.28666+2.53508I$
$u=\ 0.93349-1.31744I$ $a=-0.80555-1.36977I$ $b=-0.05818+1.69128I$	$9.31336+3.33174I$	$-3.28666-2.53508I$
$u=\ 0.92355+1.51424I$ $a=\ 0.638018-1.084890I$ $b=-0.05818+1.69128I$	$9.31336+3.33174I$	$-3.28666-2.53508I$
$u=\ 0.92355-1.51424I$ $a=\ 0.638018+1.084890I$ $b=-0.05818-1.69128I$	$9.31336-3.33174I$	$-3.28666+2.53508I$
$u=\ 0.132691$ $a=\ 7.23443$ $b=-0.416284$	-2.52712	-3.66490

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_8	$(u-1)^5(u^5+u^4-2u^3-u^2+u-1)$ $\cdot(u^{10}-2u^9+5u^8-u^7+3u^6+8u^5-2u^4+19u^3-6u^2+8u-1)$ $\cdot(u^{11}-5u^{10}+\cdots+2u+1)$
c_2, c_9	$u^5(u^5-u^4+\cdots+u-1)(u^{10}+u^9+\cdots+160u+32)$ $\cdot(u^{11}+u^{10}+\cdots+2u+1)$
c_3, c_4, c_{10}	$(u+1)^5(u^5-u^4-2u^3+u^2+u+1)$ $\cdot(u^{10}-2u^9+5u^8-u^7+3u^6+8u^5-2u^4+19u^3-6u^2+8u-1)$ $\cdot(u^{11}-5u^{10}+\cdots+2u+1)$
c_5	$(u^5-u^4-u^3+4u^2-3u+1)(u^5-u^4+2u^3-u^2+u-1)$ $\cdot(u^{10}-10u^8+43u^6+17u^5-35u^4+46u^3+64u^2-38u-29)$ $\cdot(u^{11}-u^{10}+3u^8+12u^7+10u^6-6u^5-33u^4-31u^3-33u^2-10u-11)$
c_6	$(u^5-u^4-u^3+4u^2-3u+1)(u^5+u^4-2u^3-u^2+u-1)$ $\cdot(u^{10}+2u^9+\cdots-100u-43)(u^{11}+u^{10}+\cdots-33u^2-27)$
c_7	$u^5(u^5+u^4+\cdots+u+1)(u^{10}+u^9+\cdots+160u+32)$ $\cdot(u^{11}+u^{10}+\cdots+2u+1)$
c_{11}	$(u^5-3u^4+4u^3-u^2-u+1)(u^5-u^4+u^2+u-1)^2$ $\cdot(u^5+3u^4+4u^3+u^2-u-1)$ $\cdot(u^{11}-u^{10}+u^8+8u^7-12u^6+8u^5+3u^4+3u^3-3u^2+1)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_4 c_8, c_{10}	$((y-1)^5)(y^5-5y^4+\cdots-y-1)(y^{10}+6y^9+\cdots-52y+1)$ $\cdot(y^{11}-9y^{10}+\cdots-10y-1)$
c_2, c_7, c_9	$y^5(y^5+3y^4+\cdots-y-1)(y^{10}-21y^9+\cdots-9728y+1024)$ $\cdot(y^{11}-9y^{10}+\cdots-2y-1)$
c_5	$(y^5-3y^4+3y^3-8y^2+y-1)(y^5+3y^4+4y^3+y^2-y-1)$ $\cdot(y^{10}-20y^9+\cdots-5156y+841)(y^{11}-y^{10}+\cdots-626y-121)$
c_6	$(y^5-5y^4+8y^3-3y^2-y-1)(y^5-3y^4+3y^3-8y^2+y-1)$ $\cdot(y^{10}+20y^9+\cdots-13440y+1849)$ $\cdot(y^{11}+15y^{10}+\cdots-1782y-729)$
c_{11}	$(y^5-y^4+4y^3-3y^2+3y-1)^2(y^5-y^4+8y^3-3y^2+3y-1)^2$ $\cdot(y^{11}-y^{10}+\cdots+6y-1)$