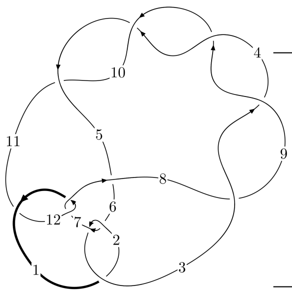
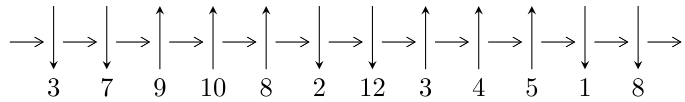
$12n_{0571}$ ($K12n_{0571}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle &-u^9 - u^8 + 6u^7 + 4u^6 - 12u^5 - 5u^4 + 7u^3 + 2u^2 + b - u + 1, \\
&3u^9 + 3u^8 - 17u^7 - 12u^6 + 30u^5 + 15u^4 - 11u^3 - 6u^2 + 2a - u - 4, \\
&u^{10} + 3u^9 - 3u^8 - 14u^7 + 21u^5 + 7u^4 - 8u^3 - 3u^2 - 2\rangle \\
I_2^u = \langle &b + 1,\ a^2 + 3u^2 - 3a - u - 6,\ u^3 - 3u - 1\rangle \\
I_3^u = \langle &b - u + 1,\ 3a + 4u - 3,\ u^2 - 3\rangle \\
I_4^u = \langle &b + 1,\ a - 2,\ u - 1\rangle \\
I_5^u = \langle &b + 1,\ a - 1,\ u - 1\rangle \\
I_6^u = \langle &b,\ a + 1,\ u + 1\rangle \\
I_7^u = \langle &b + 2,\ a - 3,\ u - 1\rangle
\end{aligned}$$

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

* 8 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 23 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.

$$I_1^u = \langle -u^9 - u^8 + \cdots + b + 1,\ 3u^9 + 3u^8 + \cdots + 2a - 4,\ u^{10} + 3u^9 + \cdots - 3u^2 - 2\rangle$$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u^2 + 1 \\ u^4 - 2u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u^6 - 3u^4 + 1 \\ -u^6 + 4u^4 - 3u^2 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -\frac{3}{2}u^9 - \frac{3}{2}u^8 + \cdots + \frac{1}{2}u + 2 \\ u^9 + u^8 - 6u^7 - 4u^6 + 12u^5 + 5u^4 - 7u^3 - 2u^2 + u - 1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} \frac{1}{2}u^9 + \frac{1}{2}u^8 + \cdots - u^2 + \frac{3}{2}u \\ -u^9 - u^8 + 5u^7 + 4u^6 - 7u^5 - 5u^4 + u^3 + 2u^2 + 1 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -\frac{3}{2}u^9 - \frac{3}{2}u^8 + \cdots - \frac{3}{2}u + 1 \\ u^9 + u^8 - 5u^7 - 3u^6 + 8u^5 + 2u^4 - 3u^3 + u - 1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} \frac{3}{2}u^9 + \frac{3}{2}u^8 + \cdots + \frac{3}{2}u - 1 \\ -u^9 - u^8 + 5u^7 + 4u^6 - 7u^5 - 5u^4 + u^3 + 2u^2 + 1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^3 + 2u \\ u^5 - 3u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 2u^7 - 12u^5 + 20u^3 - 8u + 4$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_{11}	$u^{10} + u^9 + 12u^8 + 5u^7 + 41u^6 + 7u^5 + 39u^4 + 15u^3 + 2u^2 + 4u + 1$
c_2, c_6, c_7 c_{12}	$u^{10} - u^9 + u^7 + 5u^6 - 3u^5 + u^4 + 3u^3 + 2u^2 - 1$
c_3, c_4, c_8 c_9, c_{10}	$u^{10} + 3u^9 - 3u^8 - 14u^7 + 21u^5 + 7u^4 - 8u^3 - 3u^2 - 2$
c_5	$u^{10} + 15u^9 + \cdots + 340u + 142$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_{11}	$y^{10} + 23y^9 + \cdots - 12y + 1$
c_2, c_6, c_7 c_{12}	$y^{10} - y^9 + 12y^8 - 5y^7 + 41y^6 - 7y^5 + 39y^4 - 15y^3 + 2y^2 - 4y + 1$
c_3, c_4, c_8 c_9, c_{10}	$y^{10} - 15y^9 + \cdots + 12y + 4$
c_5	$y^{10} - 39y^9 + \cdots - 13076y + 20164$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.785856+0.428779I$ $a=-1.37380-0.39872I$ $b=1.149750-0.803732I$	$2.82913-4.20392I$	$4.59667+6.41727I$
$u=-0.785856-0.428779I$ $a=-1.37380+0.39872I$ $b=1.149750+0.803732I$	$2.82913+4.20392I$	$4.59667-6.41727I$
$u=0.884247$ $a=1.30093$ $b=-0.719291$	1.75072	5.11200
$u=1.42487+0.24108I$ $a=-2.18633-0.04391I$ $b=1.60933+0.82750I$	$10.16070+6.73545I$	$5.08933-4.78933I$
$u=1.42487-0.24108I$ $a=-2.18633+0.04391I$ $b=1.60933-0.82750I$	$10.16070-6.73545I$	$5.08933+4.78933I$
$u=0.129165+0.461050I$ $a=0.444664+0.542292I$ $b=0.527577+0.512570I$	$0.055292+1.193090I$	$1.05588-5.24459I$
$u=0.129165-0.461050I$ $a=0.444664-0.542292I$ $b=0.527577-0.512570I$	$0.055292-1.193090I$	$1.05588+5.24459I$
$u=-1.71307$ $a=1.96680$ $b=-1.57906$	11.1577	7.60720
$u=-1.85377+0.06834I$ $a=-2.51839+0.18104I$ $b=1.86251-0.75572I$	$-17.0320-8.3664I$	$4.89852+3.81014I$
$u=-1.85377-0.06834I$ $a=-2.51839-0.18104I$ $b=1.86251+0.75572I$	$-17.0320+8.3664I$	$4.89852-3.81014I$

II. $I_2^u = \langle b+1,\ a^2+3u^2-3a-u-6,\ u^3-3u-1\rangle$

(i) Arc colorings

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

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

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

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

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

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

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

$$a_{12} = \begin{pmatrix} a \\ -1 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^2a+u^2+a \\ u^2a-u^2-1 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} -2u^2a+2u^2+a+1 \\ u^2a-u^2-1 \end{pmatrix}$$

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_{11}	$u^6 + 6u^4 + 10u^3 + 9u^2 + 18u + 9$
c_2, c_6, c_7 c_{12}	$u^6 + 2u^3 + 3u^2 - 3$
c_3, c_4, c_8 c_9, c_{10}	$(u^3 - 3u - 1)^2$
c_5	$(u^3 - 6u^2 + 3u + 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_{11}	$y^6 + 12y^5 + 54y^4 + 26y^3 - 171y^2 - 162y + 81$
c_2, c_6, c_7 c_{12}	$y^6 + 6y^4 - 10y^3 + 9y^2 - 18y + 9$
c_3, c_4, c_8 c_9, c_{10}	$(y^3 - 6y^2 + 9y - 1)^2$
c_5	$(y^3 - 30y^2 + 21y - 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.53209$ $a = 1.50000 + 0.56919I$ $b = -1.00000$	10.4179	6.00000
$u = -1.53209$ $a = 1.50000 - 0.56919I$ $b = -1.00000$	10.4179	6.00000
$u = -0.347296$ $a = -1.24606$ $b = -1.00000$	-2.74156	6.00000
$u = -0.347296$ $a = 4.24606$ $b = -1.00000$	-2.74156	6.00000
$u = 1.87939$ $a = 1.50000 + 0.68329I$ $b = -1.00000$	-15.9010	6.00000
$u = 1.87939$ $a = 1.50000 - 0.68329I$ $b = -1.00000$	-15.9010	6.00000

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

(i) Arc colorings

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

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

$$a_4 = \begin{pmatrix} 1 \\ -3 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} -2 \\ 3 \end{pmatrix}$$

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

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

$$a_{12} = \begin{pmatrix} -\frac{4}{3}u + 1 \\ u - 1 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -\frac{1}{3}u + 1 \\ -1 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} \frac{1}{3}u - 1 \\ 1 \end{pmatrix}$$

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

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 0$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6 c_7, c_{11}, c_{12}	$(y-1)^2$
c_3, c_4, c_5 c_8, c_9, c_{10}	$(y-3)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.73205$ $a = -1.30940$ $b = 0.732051$	9.86960	0
$u = -1.73205$ $a = 3.30940$ $b = -2.73205$	9.86960	0

IV. $I_4^u = \langle b+1,\ a-2,\ u-1 \rangle$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -1 \\ 1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 2 \\ -1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_6	u
c_3, c_4, c_7 c_8, c_9, c_{10} c_{12}	$u - 1$
c_5, c_{11}	$u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6	y
c_3, c_4, c_5 c_7, c_8, c_9 c_{10}, c_{11}, c_{12}	$y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.00000$ $a = 2.00000$ $b = -1.00000$	1.64493	6.00000

V. $I_5^u = \langle b+1,\ a-1,\ u-1 \rangle$

(i) Arc colorings

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

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

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

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

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

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

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

$$a_{12} = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$

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

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

$$a_2 = \begin{pmatrix} 2 \\ -1 \end{pmatrix}$$

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u + 1$
c_2, c_3, c_4 c_6, c_8, c_9 c_{10}	$u - 1$
c_7, c_{11}, c_{12}	u

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_8, c_9, c_{10}	$y - 1$
c_7, c_{11}, c_{12}	y

(vi) Complex Volumes and Cusp Shapes

Solutions to I_5^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.00000$ $a = 1.00000$ $b = -1.00000$	1.64493	6.00000

VI. $I_6^u = \langle b,\ a+1,\ u+1 \rangle$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -1 \\ 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 0$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5, c_6 c_8, c_9, c_{10} c_{11}, c_{12}	$u - 1$
c_2, c_3, c_4 c_7	$u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_7, c_8, c_9 c_{10}, c_{11}, c_{12}	$y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_6^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.00000$ $a = -1.00000$ $b = 0$	0	0

VII. $I_7^u = \langle b+2,\ a-3,\ u-1\rangle$

(i) Arc colorings

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

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

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

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

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

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

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

$$a_{12} = \begin{pmatrix}3\\-2\end{pmatrix}$$

$$a_1 = \begin{pmatrix}2\\-1\end{pmatrix}$$

$$a_7 = \begin{pmatrix}2\\-1\end{pmatrix}$$

$$a_2 = \begin{pmatrix}3\\-1\end{pmatrix}$$

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 0$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_4 c_6, c_{11}, c_{12}	$u - 1$
c_2, c_5, c_7 c_8, c_9, c_{10}	$u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_7, c_8, c_9 c_{10}, c_{11}, c_{12}	$y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_7^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \quad 1.00000$ $a = \quad 3.00000$ $b = -2.00000$	0	0

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

(i) Arc colorings

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

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

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

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

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

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

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

$a_{12} = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$

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

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

$a_2 = \begin{pmatrix} 2 \\ -1 \end{pmatrix}$

$a_{11} = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$

(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_7 c_{11}	$u - 1$
c_3, c_4, c_5 c_8, c_9, c_{10}	u
c_6, c_{12}	$u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6 c_7, c_{11}, c_{12}	$y-1$
c_3, c_4, c_5 c_8, c_9, c_{10}	y

(vi) Complex Volumes and Cusp Shapes

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

IX. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_{11}	$u(u-1)^5(u+1)(u^6+6u^4+10u^3+9u^2+18u+9)$ $\cdot(u^{10}+u^9+12u^8+5u^7+41u^6+7u^5+39u^4+15u^3+2u^2+4u+1)$
c_2, c_7	$u(u-1)^4(u+1)^2(u^6+2u^3+3u^2-3)$ $\cdot(u^{10}-u^9+u^7+5u^6-3u^5+u^4+3u^3+2u^2-1)$
c_3, c_4, c_8 c_9, c_{10}	$u(u-1)^3(u+1)(u^2-3)(u^3-3u-1)^2$ $\cdot(u^{10}+3u^9-3u^8-14u^7+21u^5+7u^4-8u^3-3u^2-2)$
c_5	$u(u-1)(u+1)^3(u^2-3)(u^3-6u^2+3u+1)^2$ $\cdot(u^{10}+15u^9+\cdots+340u+142)$
c_6, c_{12}	$u(u-1)^3(u+1)^3(u^6+2u^3+3u^2-3)$ $\cdot(u^{10}-u^9+u^7+5u^6-3u^5+u^4+3u^3+2u^2-1)$

X. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_{11}	$y(y-1)^6(y^6+12y^5+54y^4+26y^3-171y^2-162y+81)$ $\cdot(y^{10}+23y^9+\cdots-12y+1)$
c_2, c_6, c_7 c_{12}	$y(y-1)^6(y^6+6y^4-10y^3+9y^2-18y+9)$ $\cdot(y^{10}-y^9+12y^8-5y^7+41y^6-7y^5+39y^4-15y^3+2y^2-4y+1)$
c_3, c_4, c_8 c_9, c_{10}	$y(y-3)^2(y-1)^4(y^3-6y^2+9y-1)^2(y^{10}-15y^9+\cdots+12y+4)$
c_5	$y(y-3)^2(y-1)^4(y^3-30y^2+21y-1)^2$ $\cdot(y^{10}-39y^9+\cdots-13076y+20164)$