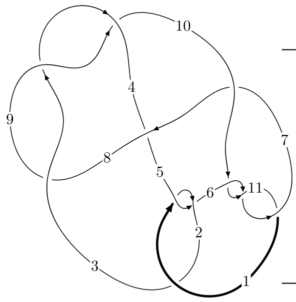
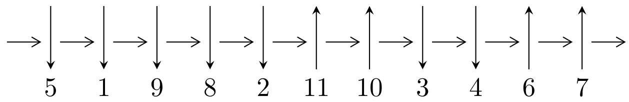
$11a_{139}$ ($K11a_{139}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u &= \langle -1330328u^{36} - 337157u^{35} + \cdots + 3064546b - 5423429, \\
&\quad 2108869u^{36} - 5518964u^{35} + \cdots + 1532273a + 24842943,\ u^{37} - 2u^{36} + \cdots + 13u + 1\rangle \\
I_2^u &= \langle u^2 + b,\ a - 1,\ u^{15} - 5u^{13} - u^{12} + 10u^{11} + 4u^{10} - 8u^9 - 6u^8 - u^7 + 3u^6 + 5u^5 + u^4 - u^3 - u^2 - u - 1\rangle \\
I_3^u &= \langle b^2 + 2b - 1,\ a - 1,\ u + 1\rangle \\
I_4^u &= \langle b + 1,\ a - 1,\ u - 1\rangle
\end{aligned}$$

* 4 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 55 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.
$\boldsymbol{I_1^u = \langle -1.33\times 10^{6}u^{36} - 3.37\times 10^{5}u^{35} + \cdots + 3.06\times 10^{6}b - 5.42\times 10^{6},\ 2.11\times 10^{6}u^{36} - 5.52\times 10^{6}u^{35} + \cdots + 1.53\times 10^{6}a + 2.48\times 10^{7},\ u^{37} - 2u^{36} + \cdots + 13u + 1\rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^3 + 2u \\ -u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^2 + 1 \\ u^4 - 2u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -1.37630u^{36} + 3.60182u^{35} + \cdots - 53.4414u - 16.2131 \\ 0.434103u^{36} + 0.110019u^{35} + \cdots + 4.77936u + 1.76973 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -1.61129u^{36} + 4.21702u^{35} + \cdots - 52.0448u - 17.2627 \\ -1.20630u^{36} + 0.913862u^{35} + \cdots + 17.4922u + 2.71463 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -1.84921u^{36} + 3.03426u^{35} + \cdots - 28.6788u - 14.3763 \\ -0.129011u^{36} - 0.605251u^{35} + \cdots + 4.55239u + 1.81040 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -1.03926u^{36} + 2.83241u^{35} + \cdots - 37.3538u - 14.7413 \\ -0.817794u^{36} + 0.142729u^{35} + \cdots + 14.2739u + 2.65174 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1.35408u^{36} - 3.76576u^{35} + \cdots + 69.5409u + 23.2930 \\ 0.656314u^{36} + 0.203071u^{35} + \cdots - 15.2619u - 3.27106 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1.35408u^{36} - 3.76576u^{35} + \cdots + 69.5409u + 23.2930 \\ 0.656314u^{36} + 0.203071u^{35} + \cdots - 15.2619u - 3.27106 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{5839087}{1532273}u^{36} + \frac{3620132}{1532273}u^{35} + \cdots + \frac{36237593}{1532273}u - \frac{19224398}{1532273}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{37} + 2u^{36} + \cdots + u + 1$
c_2	$u^{37} + 18u^{36} + \cdots + 5u + 1$
c_3, c_8, c_9	$u^{37} + 2u^{36} + \cdots + 2u^2 - 2$
c_4	$u^{37} - 6u^{36} + \cdots + 288u - 128$
c_6, c_{10}, c_{11}	$u^{37} - 2u^{36} + \cdots + 13u + 1$
c_7	$u^{37} + 6u^{36} + \cdots - 224u - 16$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{37} - 18y^{36} + \cdots + 5y - 1$
c_2	$y^{37} + 6y^{36} + \cdots + 21y - 1$
c_3, c_8, c_9	$y^{37} - 34y^{36} + \cdots + 8y - 4$
c_4	$y^{37} - 10y^{36} + \cdots + 156672y - 16384$
c_6, c_{10}, c_{11}	$y^{37} - 34y^{36} + \cdots + 117y - 1$
c_7	$y^{37} + 18y^{36} + \cdots + 32256y - 256$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.013380 + 0.311874I$ $a = -0.007083 + 0.507321I$ $b = -0.911372 + 0.339991I$	$-3.23840 + 0.33679I$	$-3.19033 + 0.85162I$
$u = -1.013380 - 0.311874I$ $a = -0.007083 - 0.507321I$ $b = -0.911372 - 0.339991I$	$-3.23840 - 0.33679I$	$-3.19033 - 0.85162I$
$u = -0.148500 + 0.878352I$ $a = -0.35212 + 1.40071I$ $b = -0.17334 + 2.13411I$	$-8.84281 - 9.20717I$	$-9.51764 + 6.62975I$
$u = -0.148500 - 0.878352I$ $a = -0.35212 - 1.40071I$ $b = -0.17334 - 2.13411I$	$-8.84281 + 9.20717I$	$-9.51764 - 6.62975I$
$u = -1.15117$ $a = -0.432099$ $b = -1.94913$	-3.47854	-0.910990
$u = 0.165281 + 0.808869I$ $a = -0.30320 - 1.46229I$ $b = -0.11222 - 1.95034I$	$-3.03568 + 5.84417I$	$-5.83954 - 7.10655I$
$u = 0.165281 - 0.808869I$ $a = -0.30320 + 1.46229I$ $b = -0.11222 + 1.95034I$	$-3.03568 - 5.84417I$	$-5.83954 + 7.10655I$
$u = -0.471583 + 0.599168I$ $a = 0.162338 + 1.262080I$ $b = -0.480709 + 1.121580I$	$-2.94289 - 4.00123I$	$-5.31382 + 7.13651I$
$u = -0.471583 - 0.599168I$ $a = 0.162338 - 1.262080I$ $b = -0.480709 - 1.121580I$	$-2.94289 + 4.00123I$	$-5.31382 - 7.13651I$
$u = -0.022041 + 0.744033I$ $a = -0.53343 - 1.59774I$ $b = 0.42055 - 2.05462I$	$-9.93818 - 0.58603I$	$-11.65035 - 0.12880I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.022041-0.744033I$ $a=-0.53343+1.59774I$ $b=\ 0.42055+2.05462I$	$-9.93818+0.58603I$	$-11.65035+0.12880I$
$u=-0.099912+0.709675I$ $a=-0.33485+1.62744I$ $b=\ 0.17353+1.80893I$	$-3.65380-1.92705I$	$-8.13048+0.55620I$
$u=-0.099912-0.709675I$ $a=-0.33485-1.62744I$ $b=\ 0.17353-1.80893I$	$-3.65380+1.92705I$	$-8.13048-0.55620I$
$u=-1.253160+0.303469I$ $a=-0.759003-0.531242I$ $b=\ 1.10971-2.91416I$	$-6.13830-3.19514I$	$-6.64446+4.28023I$
$u=-1.253160-0.303469I$ $a=-0.759003+0.531242I$ $b=\ 1.10971+2.91416I$	$-6.13830+3.19514I$	$-6.64446-4.28023I$
$u=\ 1.296560+0.177192I$ $a=-0.331390-0.464636I$ $b=-0.683956-0.483013I$	$3.08964+0.95760I$	$-60.10+1.305195I$
$u=\ 1.296560-0.177192I$ $a=-0.331390+0.464636I$ $b=-0.683956+0.483013I$	$3.08964-0.95760I$	$-60.10-1.305195I$
$u=\ 0.568431+0.375314I$ $a=\ 0.520054-0.971540I$ $b=-0.443456-0.641882I$	$0.89372+1.45212I$	$2.19487-5.36999I$
$u=\ 0.568431-0.375314I$ $a=\ 0.520054+0.971540I$ $b=-0.443456+0.641882I$	$0.89372-1.45212I$	$2.19487+5.36999I$
$u=\ 1.332640+0.298347I$ $a=-0.706159+0.554504I$ $b=\ 1.13989+2.44217I$	$0.86122+5.58916I$	$-3.00000-3.15563I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.332640 - 0.298347I$ $a = -0.706159 - 0.554504I$ $b = 1.13989 - 2.44217I$	$0.86122 - 5.58916I$	$-3.00000 + 3.15563I$
$u = -1.350860 + 0.271610I$ $a = -0.313821 + 0.546709I$ $b = -0.634567 + 0.232909I$	$4.43467 - 4.86040I$	$0. + 4.57417I$
$u = -1.350860 - 0.271610I$ $a = -0.313821 - 0.546709I$ $b = -0.634567 - 0.232909I$	$4.43467 + 4.86040I$	$0. - 4.57417I$
$u = 1.361180 + 0.332115I$ $a = -0.298381 - 0.581807I$ $b = -0.695184 - 0.117059I$	$-1.06880 + 8.43099I$	$0. - 5.07593I$
$u = 1.361180 - 0.332115I$ $a = -0.298381 + 0.581807I$ $b = -0.695184 + 0.117059I$	$-1.06880 - 8.43099I$	$0. + 5.07593I$
$u = 1.400590 + 0.045310I$ $a = -0.466611 - 0.492889I$ $b = -0.170732 - 0.843883I$	$3.96621 + 1.16950I$	0
$u = 1.400590 - 0.045310I$ $a = -0.466611 + 0.492889I$ $b = -0.170732 + 0.843883I$	$3.96621 - 1.16950I$	0
$u = -1.366970 + 0.343185I$ $a = -0.701831 - 0.589074I$ $b = 1.41347 - 2.32983I$	$1.80064 - 9.99903I$	$0. + 8.15131I$
$u = -1.366970 - 0.343185I$ $a = -0.701831 + 0.589074I$ $b = 1.41347 + 2.32983I$	$1.80064 + 9.99903I$	$0. - 8.15131I$
$u = -1.411670 + 0.052360I$ $a = -0.537001 - 0.501630I$ $b = 0.155713 - 1.234020I$	$7.20025 - 2.58398I$	$4.12642 + 3.46228I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.411670 - 0.052360I$ $a = -0.537001 + 0.501630I$ $b = 0.155713 + 1.234020I$	$7.20025 + 2.58398I$	$4.12642 - 3.46228I$
$u = 1.37052 + 0.38186I$ $a = -0.709680 + 0.609188I$ $b = 1.59214 + 2.36282I$	$-4.0535 + 13.7305I$	$0. - 8.23789I$
$u = 1.37052 - 0.38186I$ $a = -0.709680 - 0.609188I$ $b = 1.59214 - 2.36282I$	$-4.0535 - 13.7305I$	$0. + 8.23789I$
$u = 1.41824 + 0.13440I$ $a = -0.588434 + 0.523307I$ $b = 0.51535 + 1.54249I$	$3.18948 + 6.36871I$	$0. - 6.27419I$
$u = 1.41824 - 0.13440I$ $a = -0.588434 - 0.523307I$ $b = 0.51535 - 1.54249I$	$3.18948 - 6.36871I$	$0. + 6.27419I$
$u = -0.302230$ $a = 2.69339$ $b = 0.212469$	-1.08012	-10.9510
$u = -0.0973082$ $a = -10.7401$ $b = 1.30703$	-6.54639	-13.9600

II. $I_2^u = \langle u^2 + b,\ a - 1,\ u^{15} - 5u^{13} + \cdots - u - 1 \rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^3 + 2u \\ -u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^2 + 1 \\ u^4 - 2u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^4 - u^2 + 1 \\ -u^6 + 2u^4 - u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^9 + 4u^7 - 5u^5 + 2u^3 + u \\ -u^9 + 3u^7 - 3u^5 + u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^{13} - 4u^{11} + 7u^9 - 6u^7 + 2u^5 + u \\ -u^{12} + 4u^{10} + u^9 - 6u^8 - 3u^7 + 3u^6 + 3u^5 + u^4 - u^3 - u^2 - 1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^{13} - 4u^{11} + 7u^9 - 6u^7 + 2u^5 + u \\ -u^{12} + 4u^{10} + u^9 - 6u^8 - 3u^7 + 3u^6 + 3u^5 + u^4 - u^3 - u^2 - 1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u^9 - 12u^7 - 4u^6 + 12u^5 + 8u^4 - 4u^2 - 4u - 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5, c_6 c_{10}, c_{11}	$u^{15} - 5u^{13} + \cdots - u - 1$
c_2	$u^{15} + 10u^{14} + \cdots - u + 1$
c_3, c_8, c_9	$(u^5 - u^4 - 2u^3 + u^2 + u + 1)^3$
c_4	$(u^5 + 3u^4 + 4u^3 + u^2 - u - 1)^3$
c_7	$(u^5 + u^4 + 2u^3 + u^2 + u + 1)^3$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5, c_6 c_{10}, c_{11}	$y^{15} - 10y^{14} + \cdots - y - 1$
c_2	$y^{15} - 10y^{14} + \cdots + 7y - 1$
c_3, c_8, c_9	$(y^5 - 5y^4 + 8y^3 - 3y^2 - y - 1)^3$
c_4	$(y^5 - y^4 + 8y^3 - 3y^2 + 3y - 1)^3$
c_7	$(y^5 + 3y^4 + 4y^3 + y^2 - y - 1)^3$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.051760 + 0.377982I$ $a = 1.00000$ $b = -0.963319 - 0.795090I$	$-0.32910 - 1.53058I$	$-2.51511 + 4.43065I$
$u = 1.051760 - 0.377982I$ $a = 1.00000$ $b = -0.963319 + 0.795090I$	$-0.32910 + 1.53058I$	$-2.51511 - 4.43065I$
$u = -0.162112 + 0.782578I$ $a = 1.00000$ $b = 0.586148 + 0.253730I$	$-5.87256 - 4.40083I$	$-6.74431 + 3.49859I$
$u = -0.162112 - 0.782578I$ $a = 1.00000$ $b = 0.586148 - 0.253730I$	$-5.87256 + 4.40083I$	$-6.74431 - 3.49859I$
$u = -1.121390 + 0.470419I$ $a = 1.00000$ $b = -1.03622 + 1.05504I$	$-5.87256 + 4.40083I$	$-6.74431 - 3.49859I$
$u = -1.121390 - 0.470419I$ $a = 1.00000$ $b = -1.03622 - 1.05504I$	$-5.87256 - 4.40083I$	$-6.74431 + 3.49859I$
$u = -0.633490 + 0.451585I$ $a = 1.00000$ $b = -0.197381 + 0.572150I$	-2.40108	$-3.48114 + 0.I$
$u = -0.633490 - 0.451585I$ $a = 1.00000$ $b = -0.197381 - 0.572150I$	-2.40108	$-3.48114 + 0.I$
$u = -1.209710 + 0.247023I$ $a = 1.00000$ $b = -1.40237 + 0.59765I$	$-0.32910 - 1.53058I$	$-2.51511 + 4.43065I$
$u = -1.209710 - 0.247023I$ $a = 1.00000$ $b = -1.40237 - 0.59765I$	$-0.32910 + 1.53058I$	$-2.51511 - 4.43065I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.26698$ $a = 1.00000$ $b = -1.60524$	-2.40108	-3.48110
$u = 1.283500 + 0.312159I$ $a = 1.00000$ $b = -1.54993 - 0.80131I$	$-5.87256 + 4.40083I$	$-6.74431 - 3.49859I$
$u = 1.283500 - 0.312159I$ $a = 1.00000$ $b = -1.54993 + 0.80131I$	$-5.87256 - 4.40083I$	$-6.74431 + 3.49859I$
$u = 0.157950 + 0.625006I$ $a = 1.00000$ $b = 0.365684 - 0.197439I$	$-0.32910 + 1.53058I$	$-2.51511 - 4.43065I$
$u = 0.157950 - 0.625006I$ $a = 1.00000$ $b = 0.365684 + 0.197439I$	$-0.32910 - 1.53058I$	$-2.51511 + 4.43065I$

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -8$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.00000$ $a = 1.00000$ $b = 0.414214$	-4.93480	-8.00000
$u = -1.00000$ $a = 1.00000$ $b = -2.41421$	-4.93480	-8.00000

IV. $I^u_4 = \langle b+1,\ a-1,\ u-1\rangle$

(i) Arc colorings

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

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

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

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

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

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

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

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

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

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

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

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 0$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.00000$		
$a = 1.00000$	0	0
$b = -1.00000$		

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u-1)(u+1)^2(u^{15}-5u^{13}+\cdots-u-1)(u^{37}+2u^{36}+\cdots+u+1)$
c_2	$((u+1)^3)(u^{15}+10u^{14}+\cdots-u+1)(u^{37}+18u^{36}+\cdots+5u+1)$
c_3, c_8, c_9	$u(u^2-2)(u^5-u^4+\cdots+u+1)^3(u^{37}+2u^{36}+\cdots+2u^2-2)$
c_4	$u(u^2-2)(u^5+3u^4+\cdots-u-1)^3(u^{37}-6u^{36}+\cdots+288u-128)$
c_5	$((u-1)^2)(u+1)(u^{15}-5u^{13}+\cdots-u-1)(u^{37}+2u^{36}+\cdots+u+1)$
c_6	$((u-1)^2)(u+1)(u^{15}-5u^{13}+\cdots-u-1)(u^{37}-2u^{36}+\cdots+13u+1)$
c_7	$u^3(u^5+u^4+\cdots+u+1)^3(u^{37}+6u^{36}+\cdots-224u-16)$
c_{10}, c_{11}	$(u-1)(u+1)^2(u^{15}-5u^{13}+\cdots-u-1)(u^{37}-2u^{36}+\cdots+13u+1)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$((y-1)^3)(y^{15}-10y^{14}+\cdots-y-1)(y^{37}-18y^{36}+\cdots+5y-1)$
c_2	$((y-1)^3)(y^{15}-10y^{14}+\cdots+7y-1)(y^{37}+6y^{36}+\cdots+21y-1)$
c_3, c_8, c_9	$y(y-2)^2(y^5-5y^4+\cdots-y-1)^3(y^{37}-34y^{36}+\cdots+8y-4)$
c_4	$y(y-2)^2(y^5-y^4+8y^3-3y^2+3y-1)^3$ $\cdot(y^{37}-10y^{36}+\cdots+156672y-16384)$
c_6, c_{10}, c_{11}	$((y-1)^3)(y^{15}-10y^{14}+\cdots-y-1)(y^{37}-34y^{36}+\cdots+117y-1)$
c_7	$y^3(y^5+3y^4+\cdots-y-1)^3(y^{37}+18y^{36}+\cdots+32256y-256)$