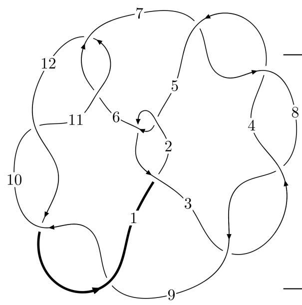
$12a_{0356}$ ($K12a_{0356}$)



A knot diagram[1]

Linearized knot diagam

3 6 9 8 2 11 5 4 1 12 7 10

Solving Sequence

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

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

$$I_1^u = \langle -5.66231 \times 10^{18} u^{58} + 4.32374 \times 10^{18} u^{57} + \cdots + 8.19653 \times 10^{18} b + 1.17819 \times 10^{19},$$
$$7.79962 \times 10^{19} u^{58} - 1.20924 \times 10^{20} u^{57} + \cdots + 4.91792 \times 10^{19} a - 4.08773 \times 10^{20},\ u^{59} - 2u^{58} + \cdots + u + 3 \rangle$$
$$I_2^u = \langle b - 1,\ a^2 + 2au + 3u^2 - 2a - 6u + 3,\ u^3 - u^2 + 1 \rangle$$
$$I_3^u = \langle b + 1,\ a + u + 1,\ u^3 + u^2 - 1 \rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 68 representations.

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[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.
$\boldsymbol{I_1^u = \langle -5.66\times10^{18}u^{58} + 4.32\times10^{18}u^{57} + \cdots + 8.20\times10^{18}b + 1.18\times10^{19},\ 7.80\times10^{19}u^{58} - 1.21\times10^{20}u^{57} + \cdots + 4.92\times10^{19}a - 4.09\times10^{20},\ u^{59} - 2u^{58} + \cdots + u + 3\rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_7 = \begin{pmatrix}1\\u^2\end{pmatrix}$$
$$a_3 = \begin{pmatrix}-1.58596u^{58} + 2.45885u^{57} + \cdots + 9.55113u + 8.31191\\0.690818u^{58} - 0.527509u^{57} + \cdots - 0.607836u - 1.43742\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}-u\\-u^3 + u\end{pmatrix}$$
$$a_2 = \begin{pmatrix}-0.895140u^{58} + 1.93134u^{57} + \cdots + 8.94330u + 6.87449\\0.690818u^{58} - 0.527509u^{57} + \cdots - 0.607836u - 1.43742\end{pmatrix}$$
$$a_1 = \begin{pmatrix}-u^5 - u\\-u^7 + u^5 - 2u^3 + u\end{pmatrix}$$
$$a_5 = \begin{pmatrix}1.92952u^{58} - 2.67059u^{57} + \cdots - 12.7404u - 7.85154\\-0.222016u^{58} - 0.0475838u^{57} + \cdots + 0.650562u - 0.281439\end{pmatrix}$$
$$a_8 = \begin{pmatrix}1.18721u^{58} - 1.74998u^{57} + \cdots + 3.24272u + 0.910386\\0.412864u^{58} - 0.942970u^{57} + \cdots - 5.73768u - 1.86980\end{pmatrix}$$
$$a_4 = \begin{pmatrix}-1.56955u^{58} + 2.85972u^{57} + \cdots + 12.4812u + 9.51305\\0.495410u^{58} - 0.282318u^{57} + \cdots + 1.25035u - 0.561736\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}u^3\\u^5 - u^3 + u\end{pmatrix}$$
$$a_9 = \begin{pmatrix}u^7 + 2u^3\\u^9 - u^7 + 3u^5 - 2u^3 + u\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{23751865828353822111}{8196531629884877029}u^{58} - \frac{18808285269894389520}{8196531629884877029}u^{57} + \cdots - \frac{8624464046685455308 4}{8196531629884877029}u - \frac{22649445219872535817 5}{8196531629884877029}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{59}+24u^{58}+\cdots-32u+1$
c_2, c_5	$u^{59}+4u^{58}+\cdots-4u+1$
c_3, c_4, c_7 c_8	$u^{59}-u^{58}+\cdots+64u^2+8$
c_6, c_{11}	$u^{59}-2u^{58}+\cdots+u+3$
c_9, c_{10}, c_{12}	$u^{59}+14u^{58}+\cdots+157u+9$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{59} + 32y^{58} + \cdots - 1936y - 1$
c_2, c_5	$y^{59} - 24y^{58} + \cdots - 32y - 1$
c_3, c_4, c_7 c_8	$y^{59} + 73y^{58} + \cdots - 1024y - 64$
c_6, c_{11}	$y^{59} - 14y^{58} + \cdots + 157y - 9$
c_9, c_{10}, c_{12}	$y^{59} + 66y^{58} + \cdots - 1307y - 81$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.950749 + 0.085534I$ $a = 1.40102 + 0.37767I$ $b = 0.881025 + 0.388729I$	$-2.20168 - 1.55351I$	$-13.9942 + 4.5761I$
$u = -0.950749 - 0.085534I$ $a = 1.40102 - 0.37767I$ $b = 0.881025 - 0.388729I$	$-2.20168 + 1.55351I$	$-13.9942 - 4.5761I$
$u = 0.955755 + 0.424887I$ $a = 1.39192 - 1.56772I$ $b = 1.001090 + 0.566158I$	$-0.26151 - 6.93624I$	$-11.4611 + 10.0156I$
$u = 0.955755 - 0.424887I$ $a = 1.39192 + 1.56772I$ $b = 1.001090 - 0.566158I$	$-0.26151 + 6.93624I$	$-11.4611 - 10.0156I$
$u = 1.061230 + 0.059722I$ $a = -1.249430 + 0.518825I$ $b = -0.871450 + 0.680013I$	$5.44848 + 2.62573I$	$-10.72193 - 2.36500I$
$u = 1.061230 - 0.059722I$ $a = -1.249430 - 0.518825I$ $b = -0.871450 - 0.680013I$	$5.44848 - 2.62573I$	$-10.72193 + 2.36500I$
$u = 0.808456 + 0.470326I$ $a = -0.499696 - 0.009506I$ $b = 0.399158 - 0.576724I$	$1.30057 - 2.44037I$	$-6.97566 + 5.43591I$
$u = 0.808456 - 0.470326I$ $a = -0.499696 + 0.009506I$ $b = 0.399158 + 0.576724I$	$1.30057 + 2.44037I$	$-6.97566 - 5.43591I$
$u = -0.841496 + 0.395242I$ $a = -0.96036 - 2.04635I$ $b = -0.942517 + 0.431284I$	$-1.79109 + 3.29910I$	$-14.9386 - 5.3714I$
$u = -0.841496 - 0.395242I$ $a = -0.96036 + 2.04635I$ $b = -0.942517 - 0.431284I$	$-1.79109 - 3.29910I$	$-14.9386 + 5.3714I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.428912 + 0.779191I$ $a = 0.069578 - 1.101110I$ $b = -0.759172 + 0.857390I$	$10.95100 + 1.36331I$	$-3.49056 - 2.36160I$
$u = -0.428912 - 0.779191I$ $a = 0.069578 + 1.101110I$ $b = -0.759172 - 0.857390I$	$10.95100 - 1.36331I$	$-3.49056 + 2.36160I$
$u = -1.039320 + 0.443029I$ $a = -1.56082 - 1.25858I$ $b = -1.062320 + 0.707142I$	$7.76213 + 9.14001I$	$-12.0000 - 7.5958I$
$u = -1.039320 - 0.443029I$ $a = -1.56082 + 1.25858I$ $b = -1.062320 - 0.707142I$	$7.76213 - 9.14001I$	$-12.0000 + 7.5958I$
$u = 0.883608 + 0.704164I$ $a = 0.236690 - 0.559685I$ $b = 0.746146 - 0.071860I$	$1.94353 - 2.69934I$	0
$u = 0.883608 - 0.704164I$ $a = 0.236690 + 0.559685I$ $b = 0.746146 + 0.071860I$	$1.94353 + 2.69934I$	0
$u = -0.995779 + 0.541016I$ $a = 0.394659 - 0.390928I$ $b = -0.608688 - 0.798203I$	$9.11589 + 3.43180I$	$-12.00000 + 0.I$
$u = -0.995779 - 0.541016I$ $a = 0.394659 + 0.390928I$ $b = -0.608688 + 0.798203I$	$9.11589 - 3.43180I$	$-12.00000 + 0.I$
$u = -0.865723 + 0.753965I$ $a = -0.987861 + 0.232003I$ $b = 0.0644711 - 0.1218690I$	$7.97460 + 2.84682I$	0
$u = -0.865723 - 0.753965I$ $a = -0.987861 - 0.232003I$ $b = 0.0644711 + 0.1218690I$	$7.97460 - 2.84682I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.287017 + 0.779308I$ $a = 0.328056 + 0.939299I$ $b = -0.992597 - 0.783531I$	$10.23980 - 4.73907I$	$-4.25165 + 2.78795I$
$u = -0.287017 - 0.779308I$ $a = 0.328056 - 0.939299I$ $b = -0.992597 + 0.783531I$	$10.23980 + 4.73907I$	$-4.25165 - 2.78795I$
$u = -0.718782 + 0.401065I$ $a = 1.86408 + 0.41857I$ $b = 1.231790 + 0.111942I$	$3.40228 + 1.59157I$	$-9.70315 - 4.05404I$
$u = -0.718782 - 0.401065I$ $a = 1.86408 - 0.41857I$ $b = 1.231790 - 0.111942I$	$3.40228 - 1.59157I$	$-9.70315 + 4.05404I$
$u = 0.779291 + 0.186002I$ $a = -1.76043 + 0.35358I$ $b = -1.092770 + 0.150850I$	$-2.95013 - 0.58618I$	$-15.2527 + 9.8012I$
$u = 0.779291 - 0.186002I$ $a = -1.76043 - 0.35358I$ $b = -1.092770 - 0.150850I$	$-2.95013 + 0.58618I$	$-15.2527 - 9.8012I$
$u = -0.893562 + 0.803723I$ $a = -0.002799 - 0.814217I$ $b = -1.251010 - 0.015615I$	$2.63289 + 3.01191I$	0
$u = -0.893562 - 0.803723I$ $a = -0.002799 + 0.814217I$ $b = -1.251010 + 0.015615I$	$2.63289 - 3.01191I$	0
$u = -0.854945 + 0.893449I$ $a = -0.723640 - 1.049790I$ $b = 1.036460 + 0.751160I$	$8.28053 - 4.23254I$	0
$u = -0.854945 - 0.893449I$ $a = -0.723640 + 1.049790I$ $b = 1.036460 - 0.751160I$	$8.28053 + 4.23254I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.886324 + 0.866549I$ $a = 0.98642 - 1.06679I$ $b = -0.845945 + 0.735665I$	$5.94223 - 0.39886I$	0
$u = 0.886324 - 0.866549I$ $a = 0.98642 + 1.06679I$ $b = -0.845945 - 0.735665I$	$5.94223 + 0.39886I$	0
$u = 0.832835 + 0.926311I$ $a = 0.571242 - 0.903844I$ $b = -1.18749 + 0.79875I$	$16.9600 + 7.2294I$	0
$u = 0.832835 - 0.926311I$ $a = 0.571242 + 0.903844I$ $b = -1.18749 - 0.79875I$	$16.9600 - 7.2294I$	0
$u = -0.897663 + 0.871706I$ $a = -0.13642 + 1.69360I$ $b = 0.673711 - 0.844140I$	$9.36550 + 1.73164I$	0
$u = -0.897663 - 0.871706I$ $a = -0.13642 - 1.69360I$ $b = 0.673711 + 0.844140I$	$9.36550 - 1.73164I$	0
$u = 0.915394 + 0.861826I$ $a = -0.067431 - 0.859114I$ $b = 1.48127 - 0.02057I$	$10.78160 - 3.19575I$	0
$u = 0.915394 - 0.861826I$ $a = -0.067431 + 0.859114I$ $b = 1.48127 + 0.02057I$	$10.78160 + 3.19575I$	0
$u = 0.938182 + 0.846227I$ $a = 0.00707 + 2.10628I$ $b = -0.898285 - 0.723052I$	$5.77879 - 5.95695I$	0
$u = 0.938182 - 0.846227I$ $a = 0.00707 - 2.10628I$ $b = -0.898285 + 0.723052I$	$5.77879 + 5.95695I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.933873+0.857641I$ $a=-1.114390-0.849709I$ $b=\ \ 0.624353+0.869336I$	$9.25182+4.67664I$	0
$u=-0.933873-0.857641I$ $a=-1.114390+0.849709I$ $b=\ \ 0.624353-0.869336I$	$9.25182-4.67664I$	0
$u=\ \ 0.875079+0.923683I$ $a=-0.06377+1.45605I$ $b=-0.571370-1.103440I$	$18.8901+0.4011I$	0
$u=\ \ 0.875079-0.923683I$ $a=-0.06377-1.45605I$ $b=-0.571370+1.103440I$	$18.8901-0.4011I$	0
$u=\ \ 0.469446+0.544141I$ $a=-0.223809-1.235640I$ $b=\ \ 0.654076+0.529004I$	$2.26071-1.37979I$	$-4.27858+3.91647I$
$u=\ \ 0.469446-0.544141I$ $a=-0.223809+1.235640I$ $b=\ \ 0.654076-0.529004I$	$2.26071+1.37979I$	$-4.27858-3.91647I$
$u=\ \ 0.667363+0.266454I$ $a=-0.70482-2.96122I$ $b=\ \ 0.852790+0.242476I$	$2.81040-1.03770I$	$-8.02636+6.84259I$
$u=\ \ 0.667363-0.266454I$ $a=-0.70482+2.96122I$ $b=\ \ 0.852790-0.242476I$	$2.81040+1.03770I$	$-8.02636-6.84259I$
$u=-0.972360+0.842990I$ $a=\ \ 0.31648+2.17743I$ $b=\ \ 1.070130-0.736498I$	$7.90798+10.65770I$	0
$u=-0.972360-0.842990I$ $a=\ \ 0.31648-2.17743I$ $b=\ \ 1.070130+0.736498I$	$7.90798-10.65770I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.312980 + 0.623983I$ $a = -0.499965 + 1.002160I$ $b = 0.872314 - 0.581880I$	$1.73082 + 3.05513I$	$-5.72428 - 4.49353I$
$u = 0.312980 - 0.623983I$ $a = -0.499965 - 1.002160I$ $b = 0.872314 + 0.581880I$	$1.73082 - 3.05513I$	$-5.72428 + 4.49353I$
$u = 1.002690 + 0.845529I$ $a = -0.53525 + 2.09749I$ $b = -1.20584 - 0.77319I$	$16.4153 - 13.7600I$	0
$u = 1.002690 - 0.845529I$ $a = -0.53525 - 2.09749I$ $b = -1.20584 + 0.77319I$	$16.4153 + 13.7600I$	0
$u = 0.980128 + 0.871697I$ $a = 1.090820 - 0.722028I$ $b = -0.524644 + 1.106680I$	$18.5511 - 7.0143I$	0
$u = 0.980128 - 0.871697I$ $a = 1.090820 + 0.722028I$ $b = -0.524644 - 1.106680I$	$18.5511 + 7.0143I$	0
$u = -0.450920 + 0.353539I$ $a = 1.152780 + 0.540477I$ $b = -0.620312 - 0.297342I$	$-0.634650 - 0.118465I$	$-11.69433 - 0.33232I$
$u = -0.450920 - 0.353539I$ $a = 1.152780 - 0.540477I$ $b = -0.620312 + 0.297342I$	$-0.634650 + 0.118465I$	$-11.69433 + 0.33232I$
$u = -0.475308$ $a = 0.893509$ $b = -0.308761$	-0.673099	-14.6220

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

(i) Arc colorings

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

$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

$$a_{12} = \begin{pmatrix} -u \\ -u^2+u+1 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} a+1 \\ 1 \end{pmatrix}$$

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

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

$$a_8 = \begin{pmatrix} -a-3u+4 \\ -u^2a+u^2+1 \end{pmatrix}$$

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

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

$$a_9 = \begin{pmatrix} -1 \\ -u^2 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 4u-12$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.877439 + 0.744862I$ $a = 1.175960 - 0.571534I$ $b = 1.00000$	$6.31400 - 2.82812I$	$-8.49024 + 2.97945I$
$u = 0.877439 + 0.744862I$ $a = -0.930832 - 0.918189I$ $b = 1.00000$	$6.31400 - 2.82812I$	$-8.49024 + 2.97945I$
$u = 0.877439 - 0.744862I$ $a = 1.175960 + 0.571534I$ $b = 1.00000$	$6.31400 + 2.82812I$	$-8.49024 - 2.97945I$
$u = 0.877439 - 0.744862I$ $a = -0.930832 + 0.918189I$ $b = 1.00000$	$6.31400 + 2.82812I$	$-8.49024 - 2.97945I$
$u = -0.754878$ $a = 1.75488 + 2.48177I$ $b = 1.00000$	2.17641	-15.0200
$u = -0.754878$ $a = 1.75488 - 2.48177I$ $b = 1.00000$	2.17641	-15.0200

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

(i) Arc colorings

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

$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

$$a_{12} = \begin{pmatrix} -u \\ u^2+u-1 \end{pmatrix}$$

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

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

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

$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

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

$$a_9 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 4u^2 + 2u - 16$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.877439 + 0.744862I$ $a = -0.122561 - 0.744862I$ $b = -1.00000$	$1.37919 + 2.82812I$	$-16.8946 - 3.7388I$
$u = -0.877439 - 0.744862I$ $a = -0.122561 + 0.744862I$ $b = -1.00000$	$1.37919 - 2.82812I$	$-16.8946 + 3.7388I$
$u = 0.754878$ $a = -1.75488$ $b = -1.00000$	-2.75839	-12.2110

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^9)(u^{59}+24u^{58}+\cdots-32u+1)$
c_2	$((u-1)^3)(u+1)^6(u^{59}+4u^{58}+\cdots-4u+1)$
c_3, c_4, c_7 c_8	$u^3(u^2+2)^3(u^{59}-u^{58}+\cdots+64u^2+8)$
c_5	$((u-1)^6)(u+1)^3(u^{59}+4u^{58}+\cdots-4u+1)$
c_6	$((u^3-u^2+1)^2)(u^3+u^2-1)(u^{59}-2u^{58}+\cdots+u+3)$
c_9, c_{10}	$((u^3-u^2+2u-1)^3)(u^{59}+14u^{58}+\cdots+157u+9)$
c_{11}	$(u^3-u^2+1)(u^3+u^2-1)^2(u^{59}-2u^{58}+\cdots+u+3)$
c_{12}	$((u^3+u^2+2u+1)^3)(u^{59}+14u^{58}+\cdots+157u+9)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^9)(y^{59}+32y^{58}+\cdots-1936y-1)$
c_2, c_5	$((y-1)^9)(y^{59}-24y^{58}+\cdots-32y-1)$
c_3, c_4, c_7 c_8	$y^3(y+2)^6(y^{59}+73y^{58}+\cdots-1024y-64)$
c_6, c_{11}	$((y^3-y^2+2y-1)^3)(y^{59}-14y^{58}+\cdots+157y-9)$
c_9, c_{10}, c_{12}	$((y^3+3y^2+2y-1)^3)(y^{59}+66y^{58}+\cdots-1307y-81)$