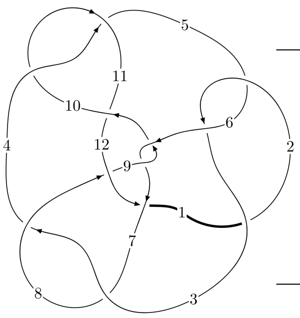
$12n_{0418}$ ($K12n_{0418}$)



A knot diagram[1]

Linearized knot diagam

$$\rightarrow \underset{3}{\downarrow} \rightarrow \underset{6}{\downarrow} \rightarrow \underset{8}{\downarrow} \rightarrow \underset{11}{\downarrow} \rightarrow \underset{2}{\downarrow} \rightarrow \underset{9}{\uparrow} \rightarrow \underset{3}{\downarrow} \rightarrow \underset{12}{\downarrow} \rightarrow \underset{6}{\uparrow} \rightarrow \underset{4}{\downarrow} \rightarrow \underset{10}{\downarrow} \rightarrow \underset{7}{\downarrow} \rightarrow$$

Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle &-3.26934\times 10^{56}u^{30} - 1.00911\times 10^{57}u^{29} + \cdots + 1.14470\times 10^{59}b - 5.53521\times 10^{58},\\
&-1.15992\times 10^{59}u^{30} - 2.78534\times 10^{59}u^{29} + \cdots + 6.06690\times 10^{60}a + 1.84407\times 10^{61},\\
&u^{31} + 2u^{30} + \cdots - 374u + 53\rangle\\
I_2^u = \langle &2288080379940u^{21} - 13342880074590u^{20} + \cdots + 130361734407498b + 28488698280106,\\
&144701135614458u^{21} - 482252040257618u^{20} + \cdots + 91253214085243a - 23683083359794,\\
&u^{22} - 3u^{21} + \cdots - u - 1\rangle
\end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 53 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. $\boldsymbol{I^u_1 = \langle -3.27\times10^{56}u^{30} - 1.01\times10^{57}u^{29} + \cdots + 1.14\times10^{59}b - 5.54\times10^{58},\ -1.16\times10^{59}u^{30} - 2.79\times10^{59}u^{29} + \cdots + 6.07\times10^{60}a + 1.84\times10^{61},\ u^{31} + 2u^{30} + \cdots - 374u + 53\rangle}$

(i) Arc colorings

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

$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.0191188u^{30} + 0.0459104u^{29} + \cdots + 8.09643u - 3.03956 \\ 0.00285607u^{30} + 0.00881553u^{29} + \cdots + 0.315937u + 0.483552 \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} 0.0114818u^{30} + 0.0242158u^{29} + \cdots + 5.92417u - 3.11645 \\ 0.00728253u^{30} + 0.0208089u^{29} + \cdots + 2.31246u + 0.143262 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.0125194u^{30} - 0.0332989u^{29} + \cdots - 3.31812u + 2.11184 \\ 0.00904266u^{30} + 0.0208537u^{29} + \cdots + 6.07142u - 1.31372 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.0137586u^{30} - 0.0382466u^{29} + \cdots - 5.78489u + 0.627589 \\ 0.00498751u^{30} + 0.0153717u^{29} + \cdots - 0.409851u + 0.438957 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.0215620u^{30} - 0.0541526u^{29} + \cdots - 9.38954u + 3.42557 \\ 0.00904266u^{30} + 0.0208537u^{29} + \cdots + 6.07142u - 1.31372 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.00710160u^{30} + 0.0223768u^{29} + \cdots + 3.65065u + 0.846020 \\ -0.0153838u^{30} - 0.0339537u^{29} + \cdots - 10.1652u + 1.84167 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.00233531u^{30} - 0.00869416u^{29} + \cdots - 2.45300u - 0.381174 \\ -0.00433511u^{30} - 0.0145092u^{29} + \cdots - 1.18936u + 0.450278 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.0154553u^{30} - 0.0361401u^{29} + \cdots - 9.80384u + 3.74041 \\ 0.0228960u^{30} + 0.0534719u^{29} + \cdots + 12.3145u - 2.52457 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.0170559u^{30} + 0.0494259u^{29} + \cdots + 8.44345u - 0.917949 \\ -0.0254517u^{30} - 0.0597883u^{29} + \cdots - 13.3489u + 2.51042 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.0281078u^{30} - 0.0792191u^{29} + \cdots - 6.22632u - 13.3726$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{31} + 59u^{30} + \cdots - 484409u + 120409$
c_2, c_5	$u^{31} + 3u^{30} + \cdots + 599u + 347$
c_3, c_7	$u^{31} - u^{30} + \cdots - 221u + 527$
c_4, c_{10}	$u^{31} - u^{30} + \cdots + 5u + 13$
c_6, c_9	$u^{31} + 2u^{30} + \cdots + 75u^2 - 1$
c_8	$u^{31} - 2u^{30} + \cdots - 374u - 53$
c_{11}	$u^{31} + 29u^{30} + \cdots + 2911u + 169$
c_{12}	$u^{31} + 2u^{30} + \cdots - 185350u - 50425$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{31} - 183y^{30} + \cdots + 2147685948663y - 14498327281$
c_2, c_5	$y^{31} - 59y^{30} + \cdots - 484409y - 120409$
c_3, c_7	$y^{31} - 57y^{30} + \cdots + 1881747y - 277729$
c_4, c_{10}	$y^{31} - 29y^{30} + \cdots + 2911y - 169$
c_6, c_9	$y^{31} + 34y^{30} + \cdots + 150y - 1$
c_8	$y^{31} - 10y^{30} + \cdots + 84014y - 2809$
c_{11}	$y^{31} - 41y^{30} + \cdots + 4210051y - 28561$
c_{12}	$y^{31} - 78y^{30} + \cdots + 44563768850y - 2542680625$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.703721 + 0.744561I$ $a = -0.131219 - 0.230843I$ $b = -0.150516 + 0.640112I$	$-0.71734 - 2.07224I$	$-3.68384 + 1.56459I$
$u = 0.703721 - 0.744561I$ $a = -0.131219 + 0.230843I$ $b = -0.150516 - 0.640112I$	$-0.71734 + 2.07224I$	$-3.68384 - 1.56459I$
$u = -0.695433 + 0.780531I$ $a = 0.508339 - 0.670000I$ $b = 0.329548 + 0.630508I$	$-3.81425 + 5.79719I$	$-8.30177 - 4.14014I$
$u = -0.695433 - 0.780531I$ $a = 0.508339 + 0.670000I$ $b = 0.329548 - 0.630508I$	$-3.81425 - 5.79719I$	$-8.30177 + 4.14014I$
$u = -0.884098 + 0.327223I$ $a = 2.72119 - 0.44116I$ $b = -0.58571 + 1.64877I$	$-9.20202 + 4.10011I$	$-18.4887 - 4.6238I$
$u = -0.884098 - 0.327223I$ $a = 2.72119 + 0.44116I$ $b = -0.58571 - 1.64877I$	$-9.20202 - 4.10011I$	$-18.4887 + 4.6238I$
$u = 1.13855$ $a = -1.34619$ $b = 0.551542$	-5.55158	-15.9810
$u = 0.228324 + 0.824059I$ $a = -0.020823 - 0.480166I$ $b = -0.201885 + 0.199719I$	$1.16898 - 1.90810I$	$-3.82691 + 6.03216I$
$u = 0.228324 - 0.824059I$ $a = -0.020823 + 0.480166I$ $b = -0.201885 - 0.199719I$	$1.16898 + 1.90810I$	$-3.82691 - 6.03216I$
$u = -1.14547$ $a = -1.67126$ $b = 0.294014$	-10.8570	-1.07250

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.052704 + 0.830178I$ $a = 0.688824 + 1.106930I$ $b = 1.032010 + 0.511602I$	$-0.254185 + 0.523436I$	$-8.37978 - 3.05773I$
$u = -0.052704 - 0.830178I$ $a = 0.688824 - 1.106930I$ $b = 1.032010 - 0.511602I$	$-0.254185 - 0.523436I$	$-8.37978 + 3.05773I$
$u = 0.821890$ $a = 3.31155$ $b = -0.588551$	-15.0143	-24.8400
$u = -1.093710 + 0.585354I$ $a = -0.529184 - 0.132666I$ $b = -0.021101 + 0.605842I$	$-5.53724 - 1.04949I$	$-12.01248 + 0.06352I$
$u = -1.093710 - 0.585354I$ $a = -0.529184 + 0.132666I$ $b = -0.021101 - 0.605842I$	$-5.53724 + 1.04949I$	$-12.01248 - 0.06352I$
$u = 1.296560 + 0.420401I$ $a = -1.209060 - 0.052495I$ $b = 0.37149 + 1.70399I$	$-4.79226 - 2.17270I$	$-10.74429 + 3.28820I$
$u = 1.296560 - 0.420401I$ $a = -1.209060 + 0.052495I$ $b = 0.37149 - 1.70399I$	$-4.79226 + 2.17270I$	$-10.74429 - 3.28820I$
$u = 0.525205 + 1.267060I$ $a = -0.621188 + 0.802341I$ $b = -0.75793 + 1.60948I$	$-1.26769 - 5.50031I$	$-6.94404 + 6.71659I$
$u = 0.525205 - 1.267060I$ $a = -0.621188 - 0.802341I$ $b = -0.75793 - 1.60948I$	$-1.26769 + 5.50031I$	$-6.94404 - 6.71659I$
$u = 0.526743 + 0.289192I$ $a = 0.458089 - 0.578413I$ $b = -0.03750 - 1.47275I$	$2.32560 + 0.63901I$	$-14.5403 + 2.2459I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.526743 - 0.289192I$ $a = 0.458089 + 0.578413I$ $b = -0.03750 + 1.47275I$	$2.32560 - 0.63901I$	$-14.5403 - 2.2459I$
$u = 1.61851$ $a = 1.15913$ $b = 0.0859312$	-18.4664	-13.9210
$u = -1.63750 + 0.39106I$ $a = 0.729477 + 0.317725I$ $b = 0.06541 + 1.72456I$	$-12.19770 - 0.58193I$	$-13.84300 + 0.10785I$
$u = -1.63750 - 0.39106I$ $a = 0.729477 - 0.317725I$ $b = 0.06541 - 1.72456I$	$-12.19770 + 0.58193I$	$-13.84300 - 0.10785I$
$u = 0.196127$ $a = -1.56428$ $b = 0.421923$	-0.703748	-14.3840
$u = -1.36626 + 1.27176I$ $a = -0.916122 - 0.700221I$ $b = 0.39264 - 2.22764I$	$15.5087 + 12.5998I$	$-12.34182 - 4.74713I$
$u = -1.36626 - 1.27176I$ $a = -0.916122 + 0.700221I$ $b = 0.39264 + 2.22764I$	$15.5087 - 12.5998I$	$-12.34182 + 4.74713I$
$u = -1.23394 + 1.55331I$ $a = -0.498680 - 0.733814I$ $b = -0.09233 - 2.40682I$	$16.2047 - 2.4749I$	$-8.00000 + 0.I$
$u = -1.23394 - 1.55331I$ $a = -0.498680 + 0.733814I$ $b = -0.09233 + 2.40682I$	$16.2047 + 2.4749I$	$-8.00000 + 0.I$
$u = 1.36828 + 1.45922I$ $a = 0.696632 - 0.707290I$ $b = -0.22656 - 2.42636I$	$-19.0095 - 5.2807I$	$-8.00000 + 0.I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.36828 - 1.45922I$ $a = 0.696632 + 0.707290I$ $b = -0.22656 + 2.42636I$	$-19.0095 + 5.2807I$	$-8.00000 + 0.I$

II.
$\boldsymbol{I_2^u = \langle 2.29\times10^{12}u^{21} - 1.33\times10^{13}u^{20} + \cdots + 1.30\times10^{13}b + 2.85\times10^{13},\ 1.45\times10^{14}u^{21} - 4.82\times10^{14}u^{20} + \cdots + 9.13\times10^{13}a - 2.37\times10^{13},\ u^{22} - 3u^{21} + \cdots - u - 1\rangle}$

(i) Arc colorings

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -1.58571u^{21} + 5.28477u^{20} + \cdots + 8.79506u + 0.259531 \\ -0.175518u^{21} + 1.02353u^{20} + \cdots - 0.370583u - 2.18536 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -1.68041u^{21} + 5.28816u^{20} + \cdots + 10.2237u + 1.91725 \\ -0.144177u^{21} + 0.875198u^{20} + \cdots + 0.00484553u - 1.90463 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -0.897790u^{21} + 2.29354u^{20} + \cdots + 6.23833u + 4.35533 \\ 0.179274u^{21} - 0.310068u^{20} + \cdots + 0.773322u + 0.158689 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0.481602u^{21} - 2.58266u^{20} + \cdots - 12.9500u + 8.90752 \\ -0.841311u^{21} + 2.70321u^{20} + \cdots + 1.56148u + 1.61463 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -1.07706u^{21} + 2.60361u^{20} + \cdots + 5.46501u + 4.19664 \\ 0.179274u^{21} - 0.310068u^{20} + \cdots + 0.773322u + 0.158689 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 2.71177u^{21} - 8.48610u^{20} + \cdots - 15.1040u - 1.10776 \\ -1.09714u^{21} + 2.80089u^{20} + \cdots + 2.25750u + 1.05460 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -4.45944u^{21} + 13.6659u^{20} + \cdots + 16.9373u + 6.28405 \\ -1.17552u^{21} + 4.02353u^{20} + \cdots + 7.62942u - 1.18536 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 5.31330u^{21} - 16.8601u^{20} + \cdots - 26.6004u - 4.64301 \\ 1.65088u^{21} - 5.79168u^{20} + \cdots - 8.47517u + 4.32508 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 6.16288u^{21} - 19.4046u^{20} + \cdots - 29.4931u - 3.47305 \\ -0.447926u^{21} + 0.664587u^{20} + \cdots - 3.13848u + 1.76637 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= \frac{358582400273224}{91253214085243}u^{21} - \frac{1126227269963647}{91253214085243}u^{20} + \cdots - \frac{215672464858020}{91253214085243}u - \frac{410928767453229}{91253214085243}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{22} - 18u^{21} + \cdots - 10u + 1$
c_2	$u^{22} + 2u^{21} + \cdots - 2u - 1$
c_3	$u^{22} - 10u^{20} + \cdots + 4u - 1$
c_4	$u^{22} - 8u^{20} + \cdots + 2u + 1$
c_5	$u^{22} - 2u^{21} + \cdots + 2u - 1$
c_6	$u^{22} + 3u^{21} + \cdots - u + 1$
c_7	$u^{22} - 10u^{20} + \cdots - 4u - 1$
c_8	$u^{22} - 3u^{21} + \cdots - u - 1$
c_9	$u^{22} - 3u^{21} + \cdots + u + 1$
c_{10}	$u^{22} - 8u^{20} + \cdots - 2u + 1$
c_{11}	$u^{22} + 16u^{21} + \cdots + 6u + 1$
c_{12}	$u^{22} - u^{21} + \cdots + 265u - 325$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{22} - 38y^{21} + \cdots + 22y + 1$
c_2, c_5	$y^{22} - 18y^{21} + \cdots - 10y + 1$
c_3, c_7	$y^{22} - 20y^{21} + \cdots - 22y + 1$
c_4, c_{10}	$y^{22} - 16y^{21} + \cdots - 6y + 1$
c_6, c_9	$y^{22} + 7y^{21} + \cdots + 11y + 1$
c_8	$y^{22} + 3y^{21} + \cdots + 15y + 1$
c_{11}	$y^{22} - 8y^{21} + \cdots + 18y + 1$
c_{12}	$y^{22} - 13y^{21} + \cdots + 178075y + 105625$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.675462 + 0.838319I$ $a = -0.008572 + 0.690284I$ $b = 0.049974 - 0.146584I$	$-4.45633 + 6.34458I$	$-15.5915 - 9.5884I$
$u = -0.675462 - 0.838319I$ $a = -0.008572 - 0.690284I$ $b = 0.049974 + 0.146584I$	$-4.45633 - 6.34458I$	$-15.5915 + 9.5884I$
$u = 0.633475 + 0.887297I$ $a = -0.292441 + 0.485808I$ $b = 0.017991 + 0.544505I$	$-1.45417 - 2.44146I$	$-12.83139 + 5.34000I$
$u = 0.633475 - 0.887297I$ $a = -0.292441 - 0.485808I$ $b = 0.017991 - 0.544505I$	$-1.45417 + 2.44146I$	$-12.83139 - 5.34000I$
$u = -0.042940 + 1.104590I$ $a = 0.39566 + 1.44174I$ $b = 1.03092 + 1.63134I$	$-1.065930 - 0.329159I$	$-13.19387 + 1.39425I$
$u = -0.042940 - 1.104590I$ $a = 0.39566 - 1.44174I$ $b = 1.03092 - 1.63134I$	$-1.065930 + 0.329159I$	$-13.19387 - 1.39425I$
$u = -0.252383 + 1.147210I$ $a = -0.301449 - 0.369158I$ $b = 1.053220 - 0.343716I$	$-3.17115 - 2.28573I$	$-13.14996 + 1.17177I$
$u = -0.252383 - 1.147210I$ $a = -0.301449 + 0.369158I$ $b = 1.053220 + 0.343716I$	$-3.17115 + 2.28573I$	$-13.14996 - 1.17177I$
$u = -1.188140 + 0.190133I$ $a = 1.38990 - 0.30485I$ $b = -0.372214 + 1.249320I$	$-6.70637 + 3.83944I$	$-14.0398 - 3.8960I$
$u = -1.188140 - 0.190133I$ $a = 1.38990 + 0.30485I$ $b = -0.372214 - 1.249320I$	$-6.70637 - 3.83944I$	$-14.0398 + 3.8960I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.24876$ $a = 1.55789$ $b = -0.564169$	-11.2120	-24.0840
$u = 0.724135 + 1.064440I$ $a = -0.151217 - 0.018235I$ $b = -0.878909 + 0.636056I$	$-1.25661 - 2.81754I$	$-11.73737 + 2.98648I$
$u = 0.724135 - 1.064440I$ $a = -0.151217 + 0.018235I$ $b = -0.878909 - 0.636056I$	$-1.25661 + 2.81754I$	$-11.73737 - 2.98648I$
$u = -0.611081$ $a = -3.95557$ $b = -0.264471$	-14.5437	-7.25840
$u = 0.56540 + 1.38339I$ $a = -0.809415 + 0.937201I$ $b = -0.85679 + 2.47579I$	$-2.03475 - 5.46840I$	$-17.4047 + 5.9669I$
$u = 0.56540 - 1.38339I$ $a = -0.809415 - 0.937201I$ $b = -0.85679 - 2.47579I$	$-2.03475 + 5.46840I$	$-17.4047 - 5.9669I$
$u = 0.124853 + 0.474502I$ $a = 0.797687 - 0.440440I$ $b = 0.128382 - 1.329670I$	$2.74060 - 1.00097I$	$-1.72317 + 7.63275I$
$u = 0.124853 - 0.474502I$ $a = 0.797687 + 0.440440I$ $b = 0.128382 + 1.329670I$	$2.74060 + 1.00097I$	$-1.72317 - 7.63275I$
$u = 1.44364 + 0.52025I$ $a = -1.170920 + 0.077131I$ $b = 0.77946 + 1.66077I$	$-5.74006 - 1.77370I$	$-18.0387 + 1.9713I$
$u = 1.44364 - 0.52025I$ $a = -1.170920 - 0.077131I$ $b = 0.77946 - 1.66077I$	$-5.74006 + 1.77370I$	$-18.0387 - 1.9713I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.151420+0.403445I$ $a=\quad 3.34960+3.75605I$ $b=-0.53770+1.48620I$	$-8.39060+3.39579I$	$-12.11834-0.09038I$
$u=-0.151420-0.403445I$ $a=\quad 3.34960-3.75605I$ $b=-0.53770-1.48620I$	$-8.39060-3.39579I$	$-12.11834+0.09038I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{22} - 18u^{21} + \cdots - 10u + 1)(u^{31} + 59u^{30} + \cdots - 484409u + 120409)$
c_2	$(u^{22} + 2u^{21} + \cdots - 2u - 1)(u^{31} + 3u^{30} + \cdots + 599u + 347)$
c_3	$(u^{22} - 10u^{20} + \cdots + 4u - 1)(u^{31} - u^{30} + \cdots - 221u + 527)$
c_4	$(u^{22} - 8u^{20} + \cdots + 2u + 1)(u^{31} - u^{30} + \cdots + 5u + 13)$
c_5	$(u^{22} - 2u^{21} + \cdots + 2u - 1)(u^{31} + 3u^{30} + \cdots + 599u + 347)$
c_6	$(u^{22} + 3u^{21} + \cdots - u + 1)(u^{31} + 2u^{30} + \cdots + 75u^2 - 1)$
c_7	$(u^{22} - 10u^{20} + \cdots - 4u - 1)(u^{31} - u^{30} + \cdots - 221u + 527)$
c_8	$(u^{22} - 3u^{21} + \cdots - u - 1)(u^{31} - 2u^{30} + \cdots - 374u - 53)$
c_9	$(u^{22} - 3u^{21} + \cdots + u + 1)(u^{31} + 2u^{30} + \cdots + 75u^2 - 1)$
c_{10}	$(u^{22} - 8u^{20} + \cdots - 2u + 1)(u^{31} - u^{30} + \cdots + 5u + 13)$
c_{11}	$(u^{22} + 16u^{21} + \cdots + 6u + 1)(u^{31} + 29u^{30} + \cdots + 2911u + 169)$
c_{12}	$(u^{22} - u^{21} + \cdots + 265u - 325)(u^{31} + 2u^{30} + \cdots - 185350u - 50425)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{22}-38y^{21}+\cdots+22y+1)$ $\cdot\,(y^{31}-183y^{30}+\cdots+2147685948663y-14498327281)$
c_2, c_5	$(y^{22}-18y^{21}+\cdots-10y+1)(y^{31}-59y^{30}+\cdots-484409y-120409)$
c_3, c_7	$(y^{22}-20y^{21}+\cdots-22y+1)$ $\cdot\,(y^{31}-57y^{30}+\cdots+1881747y-277729)$
c_4, c_{10}	$(y^{22}-16y^{21}+\cdots-6y+1)(y^{31}-29y^{30}+\cdots+2911y-169)$
c_6, c_9	$(y^{22}+7y^{21}+\cdots+11y+1)(y^{31}+34y^{30}+\cdots+150y-1)$
c_8	$(y^{22}+3y^{21}+\cdots+15y+1)(y^{31}-10y^{30}+\cdots+84014y-2809)$
c_{11}	$(y^{22}-8y^{21}+\cdots+18y+1)(y^{31}-41y^{30}+\cdots+4210051y-28561)$
c_{12}	$(y^{22}-13y^{21}+\cdots+178075y+105625)$ $\cdot\,(y^{31}-78y^{30}+\cdots+44563768850y-2542680625)$