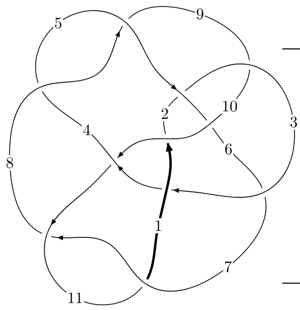
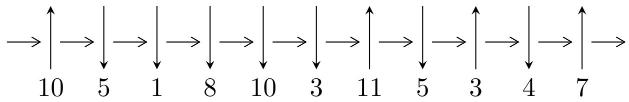
$11n_{160}$ ($K11n_{160}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & -2.61154 \times 10^{116} u^{41} + 7.44138 \times 10^{116} u^{40} + \cdots + 2.20130 \times 10^{118} b + 2.20567 \times 10^{118}, \\
& 2.76575 \times 10^{118} u^{41} - 8.73496 \times 10^{118} u^{40} + \cdots + 2.42143 \times 10^{119} a + 9.10967 \times 10^{119}, \\
& u^{42} - 3u^{41} + \cdots - 184u - 11 \rangle \\
I_2^u = \langle & 31u^8 + 26u^7 + 50u^6 + 165u^5 - 26u^4 - 204u^3 - 34u^2 + 47b + 86u + 75, \\
& 34u^8 + 27u^7 + 23u^6 + 184u^5 - 74u^4 - 342u^3 + 131u^2 + 47a + 158u - 83, \\
& u^9 + 2u^8 + 2u^7 + 7u^6 + 5u^5 - 10u^4 - 6u^3 + 6u^2 + 3u + 1 \rangle
\end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 51 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. $\boldsymbol{I^u_1 = \langle -2.61 \times 10^{116} u^{41} + 7.44 \times 10^{116} u^{40} + \cdots + 2.20 \times 10^{118} b + 2.21 \times 10^{118},\ 2.77 \times 10^{118} u^{41} - 8.73 \times 10^{118} u^{40} + \cdots + 2.42 \times 10^{119} a + 9.11 \times 10^{119},\ u^{42} - 3u^{41} + \cdots - 184u - 11 \rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -0.114220u^{41} + 0.360736u^{40} + \cdots + 116.228u - 3.76211 \\ 0.0118637u^{41} - 0.0338046u^{40} + \cdots - 14.7028u - 1.00199 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -0.0851467u^{41} + 0.256373u^{40} + \cdots + 160.031u + 16.8852 \\ -0.0100801u^{41} + 0.0314357u^{40} + \cdots + 4.32560u - 0.298656 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -0.102356u^{41} + 0.326932u^{40} + \cdots + 101.525u - 4.76410 \\ 0.0118637u^{41} - 0.0338046u^{40} + \cdots - 14.7028u - 1.00199 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -0.102356u^{41} + 0.326932u^{40} + \cdots + 101.525u - 4.76410 \\ 0.00934866u^{41} - 0.0266415u^{40} + \cdots - 12.1739u - 0.783495 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0.183123u^{41} - 0.552897u^{40} + \cdots - 292.420u - 21.2506 \\ -0.00244803u^{41} + 0.00733234u^{40} + \cdots + 2.14687u + 0.897796 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0.180675u^{41} - 0.545564u^{40} + \cdots - 290.273u - 20.3528 \\ -0.00244803u^{41} + 0.00733234u^{40} + \cdots + 2.14687u + 0.897796 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -0.157339u^{41} + 0.476272u^{40} + \cdots + 234.882u + 15.0129 \\ 0.00294723u^{41} - 0.0113162u^{40} + \cdots - 3.44539u - 0.785309 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -0.149328u^{41} + 0.463397u^{40} + \cdots + 205.737u + 5.85422 \\ 0.00974472u^{41} - 0.0271814u^{40} + \cdots - 13.4504u - 1.21086 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -0.149328u^{41} + 0.463397u^{40} + \cdots + 205.737u + 5.85422 \\ 0.00974472u^{41} - 0.0271814u^{40} + \cdots - 13.4504u - 1.21086 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.0407139u^{41} + 0.122846u^{40} + \cdots + 94.2507u + 5.40926$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{42} + 2u^{41} + \cdots - 124u - 4$
c_2	$u^{42} + 20u^{40} + \cdots - 749u - 101$
c_3	$u^{42} - 6u^{41} + \cdots - 8u + 1$
c_4, c_8	$u^{42} + 2u^{41} + \cdots + 556u + 116$
c_5	$u^{42} - 3u^{41} + \cdots - 184u - 11$
c_6	$u^{42} + u^{40} + \cdots + 106u - 97$
c_7, c_{11}	$u^{42} - 4u^{41} + \cdots - 47u - 13$
c_9	$u^{42} - u^{41} + \cdots + 112u - 23$
c_{10}	$u^{42} + 2u^{41} + \cdots + 128u + 29$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{42} - 72y^{41} + \cdots - 5760y + 16$
c_2	$y^{42} + 40y^{41} + \cdots + 72673y + 10201$
c_3	$y^{42} + 4y^{41} + \cdots - 30y + 1$
c_4, c_8	$y^{42} - 24y^{41} + \cdots - 45120y + 13456$
c_5	$y^{42} + 51y^{41} + \cdots + 5722y + 121$
c_6	$y^{42} + 2y^{41} + \cdots + 164916y + 9409$
c_7, c_{11}	$y^{42} + 26y^{41} + \cdots - 805y + 169$
c_9	$y^{42} - 45y^{41} + \cdots - 1274y + 529$
c_{10}	$y^{42} - 12y^{41} + \cdots - 22358y + 841$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.838508 + 0.288184I$ $a = 1.170650 + 0.251577I$ $b = -0.474707 + 0.528975I$	$-3.52003 + 2.03312I$	$-8.42216 - 3.37678I$
$u = 0.838508 - 0.288184I$ $a = 1.170650 - 0.251577I$ $b = -0.474707 - 0.528975I$	$-3.52003 - 2.03312I$	$-8.42216 + 3.37678I$
$u = -1.192800 + 0.009739I$ $a = -0.0763919 + 0.0920066I$ $b = -0.593548 + 0.597226I$	$-1.94227 - 0.55855I$	$-3.25163 - 2.41810I$
$u = -1.192800 - 0.009739I$ $a = -0.0763919 - 0.0920066I$ $b = -0.593548 - 0.597226I$	$-1.94227 + 0.55855I$	$-3.25163 + 2.41810I$
$u = -0.394106 + 0.627152I$ $a = 1.78252 - 0.23343I$ $b = -0.403159 - 0.306921I$	$-4.10677 - 1.00823I$	$-6.95415 - 0.51830I$
$u = -0.394106 - 0.627152I$ $a = 1.78252 + 0.23343I$ $b = -0.403159 + 0.306921I$	$-4.10677 + 1.00823I$	$-6.95415 + 0.51830I$
$u = -0.549682 + 0.472418I$ $a = 0.724998 + 0.076343I$ $b = 0.045927 + 0.526713I$	$-0.95288 + 2.06296I$	$-2.70729 - 3.81916I$
$u = -0.549682 - 0.472418I$ $a = 0.724998 - 0.076343I$ $b = 0.045927 - 0.526713I$	$-0.95288 - 2.06296I$	$-2.70729 + 3.81916I$
$u = 0.071542 + 1.319740I$ $a = 0.310251 + 1.197800I$ $b = -0.53365 - 1.65271I$	$-0.24491 - 5.34601I$	$-6.61771 + 6.40608I$
$u = 0.071542 - 1.319740I$ $a = 0.310251 - 1.197800I$ $b = -0.53365 + 1.65271I$	$-0.24491 + 5.34601I$	$-6.61771 - 6.40608I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.322779 + 0.584470I$ $a = -1.96834 - 1.04003I$ $b = -0.018310 + 0.894802I$	$-4.81718 + 6.58441I$	$-5.59437 - 5.87348I$
$u = 0.322779 - 0.584470I$ $a = -1.96834 + 1.04003I$ $b = -0.018310 - 0.894802I$	$-4.81718 - 6.58441I$	$-5.59437 + 5.87348I$
$u = 0.194310 + 0.577382I$ $a = 0.904526 - 0.641045I$ $b = 0.492771 - 0.001301I$	$0.96120 + 1.37637I$	$2.37205 - 4.71298I$
$u = 0.194310 - 0.577382I$ $a = 0.904526 + 0.641045I$ $b = 0.492771 + 0.001301I$	$0.96120 - 1.37637I$	$2.37205 + 4.71298I$
$u = 0.207450 + 0.501375I$ $a = 1.094850 - 0.376955I$ $b = -1.257640 + 0.545229I$	$-4.48395 + 1.62517I$	$-2.04474 - 0.35828I$
$u = 0.207450 - 0.501375I$ $a = 1.094850 + 0.376955I$ $b = -1.257640 - 0.545229I$	$-4.48395 - 1.62517I$	$-2.04474 + 0.35828I$
$u = -0.294933 + 0.306279I$ $a = 1.39370 + 1.50859I$ $b = 1.54579 + 0.18285I$	$-5.60720 - 6.66981I$	$-4.81384 + 5.61602I$
$u = -0.294933 - 0.306279I$ $a = 1.39370 - 1.50859I$ $b = 1.54579 - 0.18285I$	$-5.60720 + 6.66981I$	$-4.81384 - 5.61602I$
$u = -0.368795$ $a = 0.896001$ $b = -0.725613$	-1.10908	-10.5890
$u = -0.45702 + 1.66340I$ $a = -0.199299 - 1.049700I$ $b = -0.07435 + 1.78893I$	$5.41237 + 6.59053I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.45702 - 1.66340I$ $a = -0.199299 + 1.049700I$ $b = -0.07435 - 1.78893I$	$5.41237 - 6.59053I$	0
$u = 1.72020 + 0.21164I$ $a = -0.346970 - 0.170035I$ $b = -0.301486 + 0.307655I$	$-6.74843 - 5.64741I$	0
$u = 1.72020 - 0.21164I$ $a = -0.346970 + 0.170035I$ $b = -0.301486 - 0.307655I$	$-6.74843 + 5.64741I$	0
$u = 0.06851 + 1.75165I$ $a = 0.208522 - 1.001630I$ $b = -0.26966 + 1.44580I$	$4.33527 + 2.92425I$	0
$u = 0.06851 - 1.75165I$ $a = 0.208522 + 1.001630I$ $b = -0.26966 - 1.44580I$	$4.33527 - 2.92425I$	0
$u = 0.42070 + 1.74601I$ $a = -0.218861 + 0.855059I$ $b = -0.01981 - 1.75119I$	$7.93236 - 2.29439I$	0
$u = 0.42070 - 1.74601I$ $a = -0.218861 - 0.855059I$ $b = -0.01981 + 1.75119I$	$7.93236 + 2.29439I$	0
$u = -0.64354 + 1.75757I$ $a = 0.209152 + 0.893674I$ $b = -0.301319 - 1.190510I$	$3.08658 + 1.51461I$	0
$u = -0.64354 - 1.75757I$ $a = 0.209152 - 0.893674I$ $b = -0.301319 + 1.190510I$	$3.08658 - 1.51461I$	0
$u = -0.0616260 + 0.0746193I$ $a = -10.96120 + 5.34669I$ $b = -0.086589 - 0.706593I$	$-1.12929 - 2.58933I$	$-0.40470 + 5.03166I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.0616260-0.0746193I$ $a=-10.96120-5.34669I$ $b=-0.086589+0.706593I$	$-1.12929+2.58933I$	$-0.40470-5.03166I$
$u=-0.17719+1.92230I$ $a=\ \ 0.182597-0.970850I$ $b=-0.14313+1.50275I$	$4.55674+2.88338I$	0
$u=-0.17719-1.92230I$ $a=\ \ 0.182597+0.970850I$ $b=-0.14313-1.50275I$	$4.55674-2.88338I$	0
$u=\ \ 0.50851+1.89248I$ $a=\ \ 0.236773+0.848855I$ $b=-0.08366-1.50753I$	$3.06015-4.00976I$	0
$u=\ \ 0.50851-1.89248I$ $a=\ \ 0.236773-0.848855I$ $b=-0.08366+1.50753I$	$3.06015+4.00976I$	0
$u=\ \ 1.99479$ $a=\ \ 0.535185$ $b=\ \ 2.64314$	0.445368	0
$u=-0.41191+1.95357I$ $a=-0.017188+0.836754I$ $b=\ \ 0.57790-1.71570I$	$5.50962+8.17142I$	0
$u=-0.41191-1.95357I$ $a=-0.017188-0.836754I$ $b=\ \ 0.57790+1.71570I$	$5.50962-8.17142I$	0
$u=\ \ 0.48329+1.95963I$ $a=-0.087238-0.890319I$ $b=\ \ 0.52555+1.75387I$	$0.9874-14.3018I$	0
$u=\ \ 0.48329-1.95963I$ $a=-0.087238+0.890319I$ $b=\ \ 0.52555-1.75387I$	$0.9874+14.3018I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.03402 + 2.11235I$ $a = -0.104154 - 0.553583I$ $b = 0.41431 + 2.06998I$	$0.510430 - 0.864801I$	0
$u = 0.03402 - 2.11235I$ $a = -0.104154 + 0.553583I$ $b = 0.41431 - 2.06998I$	$0.510430 + 0.864801I$	0

II. $I^u_2 =$
$\langle 31u^8+26u^7+\cdots+47b+75,\ 34u^8+27u^7+\cdots+47a-83,\ u^9+2u^8+\cdots+3u+1\rangle$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -0.723404u^8 - 0.574468u^7 + \cdots - 3.36170u + 1.76596 \\ -0.659574u^8 - 0.553191u^7 + \cdots - 1.82979u - 1.59574 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -0.148936u^8 - 0.382979u^7 + \cdots + 0.425532u - 1.48936 \\ 0.872340u^8 + 0.957447u^7 + \cdots + 2.93617u + 1.72340 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -1.38298u^8 - 1.12766u^7 + \cdots - 5.19149u + 0.170213 \\ -0.659574u^8 - 0.553191u^7 + \cdots - 1.82979u - 1.59574 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -1.38298u^8 - 1.12766u^7 + \cdots - 5.19149u + 0.170213 \\ -2.72340u^8 - 1.57447u^7 + \cdots - 5.36170u - 3.23404 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -0.936170u^8 - 1.97872u^7 + \cdots - 8.46809u - 1.36170 \\ 0.595745u^8 + 0.531915u^7 + \cdots + 4.29787u - 0.0425532 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -0.340426u^8 - 1.44681u^7 + \cdots - 4.17021u - 1.40426 \\ 0.595745u^8 + 0.531915u^7 + \cdots + 4.29787u - 0.0425532 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -0.765957u^8 - 1.25532u^7 + \cdots - 4.38298u - 2.65957 \\ 0.723404u^8 + 1.57447u^7 + \cdots + 6.36170u + 1.23404 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1.14894u^8 + 1.38298u^7 + \cdots + 3.57447u + 2.48936 \\ 0.425532u^8 - 0.191489u^7 + \cdots - 2.78723u - 0.744681 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1.14894u^8 + 1.38298u^7 + \cdots + 3.57447u + 2.48936 \\ 0.425532u^8 - 0.191489u^7 + \cdots - 2.78723u - 0.744681 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= \frac{854}{47}u^8 + \frac{457}{47}u^7 + \frac{962}{47}u^6 + \frac{4406}{47}u^5 - \frac{2337}{47}u^4 - \frac{5726}{47}u^3 + \frac{2743}{47}u^2 + \frac{1931}{47}u - \frac{61}{47}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^9 - 5u^8 + 3u^7 - 3u^5 + 3u^4 + 6u^3 - 6u^2 + 4u - 4$
c_2	$u^9 - 3u^8 + 3u^7 - 3u^6 - u^5 + 6u^4 - 3u^3 - 3u^2 - 1$
c_3	$u^9 + 5u^8 + 13u^7 + 18u^6 + 18u^5 + 14u^4 + 13u^3 + 10u^2 + 7u + 1$
c_4	$u^9 + 3u^8 + u^7 - 8u^6 - 11u^5 + 3u^4 + 14u^3 + 6u^2 - 4u - 4$
c_5	$u^9 + 2u^8 + 2u^7 + 7u^6 + 5u^5 - 10u^4 - 6u^3 + 6u^2 + 3u + 1$
c_6	$u^9 - 3u^8 + 2u^7 + 9u^6 - 3u^5 - 6u^4 + 8u^3 + 11u^2 + 5u + 1$
c_7	$u^9 + u^8 + 2u^7 + 6u^6 + 9u^4 - 3u^3 + 4u^2 - 2u + 1$
c_8	$u^9 - 3u^8 + u^7 + 8u^6 - 11u^5 - 3u^4 + 14u^3 - 6u^2 - 4u + 4$
c_9	$u^9 - 2u^8 + u^6 + u^5 + 2u^4 + 2u^3 + 4u^2 + u + 1$
c_{10}	$u^9 + u^8 - u^7 + 2u^6 + 10u^5 + 3u^4 - 3u^3 + 4u^2 + 5u + 1$
c_{11}	$u^9 - u^8 + 2u^7 - 6u^6 - 9u^4 - 3u^3 - 4u^2 - 2u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^9 - 19y^8 + 3y^7 + 24y^6 - 7y^5 - 61y^4 + 48y^3 + 36y^2 - 32y - 16$
c_2	$y^9 - 3y^8 - 11y^7 + 15y^6 + y^5 - 54y^4 + 39y^3 + 3y^2 - 6y - 1$
c_3	$y^9 + y^8 + 25y^7 + 30y^6 + 72y^5 + 84y^4 + 105y^3 + 54y^2 + 29y - 1$
c_4, c_8	$y^9 - 7y^8 + \cdots + 64y - 16$
c_5	$y^9 - 14y^7 - y^6 + 123y^5 - 236y^4 + 172y^3 - 52y^2 - 3y - 1$
c_6	$y^9 - 5y^8 + 52y^7 - 113y^6 + 225y^5 - 256y^4 + 148y^3 - 29y^2 + 3y - 1$
c_7, c_{11}	$y^9 + 3y^8 - 8y^7 - 60y^6 - 132y^5 - 139y^4 - 75y^3 - 22y^2 - 4y - 1$
c_9	$y^9 - 4y^8 + 6y^7 + 11y^6 + 15y^5 - 4y^4 - 12y^3 - 16y^2 - 7y - 1$
c_{10}	$y^9 - 3y^8 + 17y^7 - 36y^6 + 96y^5 - 97y^4 + 81y^3 - 52y^2 + 17y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.822660 + 0.322290I$ $a = 0.897214 + 0.551383I$ $b = -0.048121 + 0.465250I$	$-1.99801 + 1.72753I$	$-3.97057 - 2.65342I$
$u = 0.822660 - 0.322290I$ $a = 0.897214 - 0.551383I$ $b = -0.048121 - 0.465250I$	$-1.99801 - 1.72753I$	$-3.97057 + 2.65342I$
$u = -1.330240 + 0.168300I$ $a = -0.008304 - 0.408404I$ $b = 0.796448 + 0.144077I$	$-7.57318 - 6.23029I$	$-10.70312 + 5.64960I$
$u = -1.330240 - 0.168300I$ $a = -0.008304 + 0.408404I$ $b = 0.796448 - 0.144077I$	$-7.57318 + 6.23029I$	$-10.70312 - 5.64960I$
$u = -1.50796$ $a = -0.697213$ $b = -2.17611$	0.490477	53.2280
$u = -0.197789 + 0.290372I$ $a = 2.84968 - 0.54952I$ $b = -1.087790 - 0.549338I$	$-5.07942 - 1.69947I$	$-16.7062 + 3.0605I$
$u = -0.197789 - 0.290372I$ $a = 2.84968 + 0.54952I$ $b = -1.087790 + 0.549338I$	$-5.07942 + 1.69947I$	$-16.7062 - 3.0605I$
$u = 0.45935 + 1.90181I$ $a = 0.110015 + 0.952948I$ $b = -0.07249 - 1.46762I$	$4.53577 - 3.70953I$	$-0.23420 + 7.12511I$
$u = 0.45935 - 1.90181I$ $a = 0.110015 - 0.952948I$ $b = -0.07249 + 1.46762I$	$4.53577 + 3.70953I$	$-0.23420 - 7.12511I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^9 - 5u^8 + 3u^7 - 3u^5 + 3u^4 + 6u^3 - 6u^2 + 4u - 4)$ $\cdot (u^{42} + 2u^{41} + \cdots - 124u - 4)$
c_2	$(u^9 - 3u^8 + 3u^7 - 3u^6 - u^5 + 6u^4 - 3u^3 - 3u^2 - 1)$ $\cdot (u^{42} + 20u^{40} + \cdots - 749u - 101)$
c_3	$(u^9 + 5u^8 + 13u^7 + 18u^6 + 18u^5 + 14u^4 + 13u^3 + 10u^2 + 7u + 1)$ $\cdot (u^{42} - 6u^{41} + \cdots - 8u + 1)$
c_4	$(u^9 + 3u^8 + u^7 - 8u^6 - 11u^5 + 3u^4 + 14u^3 + 6u^2 - 4u - 4)$ $\cdot (u^{42} + 2u^{41} + \cdots + 556u + 116)$
c_5	$(u^9 + 2u^8 + 2u^7 + 7u^6 + 5u^5 - 10u^4 - 6u^3 + 6u^2 + 3u + 1)$ $\cdot (u^{42} - 3u^{41} + \cdots - 184u - 11)$
c_6	$(u^9 - 3u^8 + 2u^7 + 9u^6 - 3u^5 - 6u^4 + 8u^3 + 11u^2 + 5u + 1)$ $\cdot (u^{42} + u^{40} + \cdots + 106u - 97)$
c_7	$(u^9 + u^8 + 2u^7 + 6u^6 + 9u^4 - 3u^3 + 4u^2 - 2u + 1)$ $\cdot (u^{42} - 4u^{41} + \cdots - 47u - 13)$
c_8	$(u^9 - 3u^8 + u^7 + 8u^6 - 11u^5 - 3u^4 + 14u^3 - 6u^2 - 4u + 4)$ $\cdot (u^{42} + 2u^{41} + \cdots + 556u + 116)$
c_9	$(u^9 - 2u^8 + u^6 + u^5 + 2u^4 + 2u^3 + 4u^2 + u + 1)$ $\cdot (u^{42} - u^{41} + \cdots + 112u - 23)$
c_{10}	$(u^9 + u^8 - u^7 + 2u^6 + 10u^5 + 3u^4 - 3u^3 + 4u^2 + 5u + 1)$ $\cdot (u^{42} + 2u^{41} + \cdots + 128u + 29)$
c_{11}	$(u^9 - u^8 + 2u^7 - 6u^6 - 9u^4 - 3u^3 - 4u^2 - 2u - 1)$ $\cdot (u^{42} - 4u^{41} + \cdots - 47u - 13)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^9 - 19y^8 + 3y^7 + 24y^6 - 7y^5 - 61y^4 + 48y^3 + 36y^2 - 32y - 16)$ $\cdot (y^{42} - 72y^{41} + \cdots - 5760y + 16)$
c_2	$(y^9 - 3y^8 - 11y^7 + 15y^6 + y^5 - 54y^4 + 39y^3 + 3y^2 - 6y - 1)$ $\cdot (y^{42} + 40y^{41} + \cdots + 72673y + 10201)$
c_3	$(y^9 + y^8 + 25y^7 + 30y^6 + 72y^5 + 84y^4 + 105y^3 + 54y^2 + 29y - 1)$ $\cdot (y^{42} + 4y^{41} + \cdots - 30y + 1)$
c_4, c_8	$(y^9 - 7y^8 + \cdots + 64y - 16)(y^{42} - 24y^{41} + \cdots - 45120y + 13456)$
c_5	$(y^9 - 14y^7 - y^6 + 123y^5 - 236y^4 + 172y^3 - 52y^2 - 3y - 1)$ $\cdot (y^{42} + 51y^{41} + \cdots + 5722y + 121)$
c_6	$(y^9 - 5y^8 + 52y^7 - 113y^6 + 225y^5 - 256y^4 + 148y^3 - 29y^2 + 3y - 1)$ $\cdot (y^{42} + 2y^{41} + \cdots + 164916y + 9409)$
c_7, c_{11}	$(y^9 + 3y^8 - 8y^7 - 60y^6 - 132y^5 - 139y^4 - 75y^3 - 22y^2 - 4y - 1)$ $\cdot (y^{42} + 26y^{41} + \cdots - 805y + 169)$
c_9	$(y^9 - 4y^8 + 6y^7 + 11y^6 + 15y^5 - 4y^4 - 12y^3 - 16y^2 - 7y - 1)$ $\cdot (y^{42} - 45y^{41} + \cdots - 1274y + 529)$
c_{10}	$(y^9 - 3y^8 + 17y^7 - 36y^6 + 96y^5 - 97y^4 + 81y^3 - 52y^2 + 17y - 1)$ $\cdot (y^{42} - 12y^{41} + \cdots - 22358y + 841)$