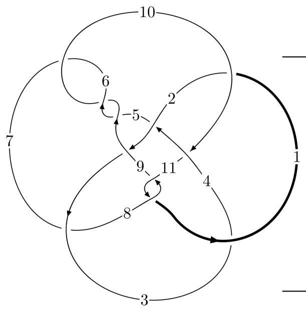
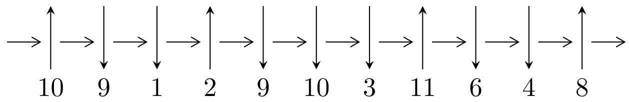
$11n_{154}$ ($K11n_{154}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 1.31566 \times 10^{70} u^{49} + 5.59358 \times 10^{70} u^{48} + \cdots + 6.53231 \times 10^{69} b - 5.03553 \times 10^{70},$$
$$- 3.55956 \times 10^{70} u^{49} - 1.50298 \times 10^{71} u^{48} + \cdots + 6.53231 \times 10^{69} a + 1.72500 \times 10^{71},\ u^{50} + 4u^{49} + \cdots - 6u -$$
$$I_2^u = \langle u^{10} - u^9 - 3u^8 + 3u^7 + 4u^6 - 4u^5 - 7u^4 + 6u^3 + 7u^2 + b - 3u - 2,$$
$$- 15u^{10} + 10u^9 + 45u^8 - 26u^7 - 61u^6 + 30u^5 + 107u^4 - 44u^3 - 102u^2 + a + 7u + 21,$$
$$u^{11} - u^{10} - 3u^9 + 3u^8 + 4u^7 - 4u^6 - 7u^5 + 6u^4 + 7u^3 - 4u^2 - 2u + 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 61 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.
$\boldsymbol{I^u_1 = \langle 1.32\times10^{70}u^{49}+5.59\times10^{70}u^{48}+\cdots+6.53\times10^{69}b-5.04\times10^{70},\ -3.56\times10^{70}u^{49}-1.50\times10^{71}u^{48}+\cdots+6.53\times10^{69}a+1.73\times10^{71},\ u^{50}+4u^{49}+\cdots-6u+1\rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_9 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}1\\u^2\end{pmatrix}$$
$$a_3 = \begin{pmatrix}5.44916u^{49}+23.0084u^{48}+\cdots+36.9971u-26.4072\\-2.01408u^{49}-8.56295u^{48}+\cdots-15.0392u+7.70865\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-u\\-u^3+u\end{pmatrix}$$
$$a_2 = \begin{pmatrix}3.43508u^{49}+14.4454u^{48}+\cdots+21.9578u-18.6986\\-2.01408u^{49}-8.56295u^{48}+\cdots-15.0392u+7.70865\end{pmatrix}$$
$$a_1 = \begin{pmatrix}5.50930u^{49}+23.2971u^{48}+\cdots+37.7925u-27.1123\\-1.94686u^{49}-8.15972u^{48}+\cdots-13.7847u+7.15385\end{pmatrix}$$
$$a_5 = \begin{pmatrix}u\\u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}7.20223u^{49}+30.4910u^{48}+\cdots+55.1926u-32.3223\\-1.16935u^{49}-5.08349u^{48}+\cdots-12.3880u+5.64687\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-0.0754028u^{49}-0.252955u^{48}+\cdots+13.1088u+4.21868\\1.44659u^{49}+5.86887u^{48}+\cdots+6.37477u-5.35313\end{pmatrix}$$
$$a_8 = \begin{pmatrix}6.55926u^{49}+27.8864u^{48}+\cdots+49.0350u-30.2341\\-1.23352u^{49}-5.24956u^{48}+\cdots-10.3413u+5.39025\end{pmatrix}$$
$$a_8 = \begin{pmatrix}6.55926u^{49}+27.8864u^{48}+\cdots+49.0350u-30.2341\\-1.23352u^{49}-5.24956u^{48}+\cdots-10.3413u+5.39025\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 6.39014u^{49}+28.2211u^{48}+\cdots+72.9518u-36.4279$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{50} + 8u^{49} + \cdots - 87u + 71$
c_2	$u^{50} + 2u^{49} + \cdots + 314u + 193$
c_3	$u^{50} - 6u^{49} + \cdots + 10u - 1$
c_4	$u^{50} - 5u^{49} + \cdots + 304u + 403$
c_5, c_6, c_9	$u^{50} + 4u^{49} + \cdots - 6u + 1$
c_7	$u^{50} + u^{49} + \cdots + 512u + 29$
c_8, c_{11}	$u^{50} + u^{49} + \cdots + 3u^2 + 1$
c_{10}	$u^{50} + 2u^{49} + \cdots + 13u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{50} - 20y^{49} + \cdots - 590053y + 5041$
c_2	$y^{50} + 46y^{49} + \cdots + 780712y + 37249$
c_3	$y^{50} - 4y^{49} + \cdots - 154y^2 + 1$
c_4	$y^{50} - 45y^{49} + \cdots - 1305446y + 162409$
c_5, c_6, c_9	$y^{50} - 12y^{49} + \cdots - 48y + 1$
c_7	$y^{50} + 13y^{49} + \cdots - 327684y + 841$
c_8, c_{11}	$y^{50} + 31y^{49} + \cdots + 6y + 1$
c_{10}	$y^{50} - 2y^{49} + \cdots - 35y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.973898 + 0.287950I$ $a = -0.695696 + 0.419798I$ $b = -0.457776 + 0.369939I$	$-1.86387 + 0.30095I$	$-9.64984 - 1.90143I$
$u = -0.973898 - 0.287950I$ $a = -0.695696 - 0.419798I$ $b = -0.457776 - 0.369939I$	$-1.86387 - 0.30095I$	$-9.64984 + 1.90143I$
$u = 0.913846 + 0.185540I$ $a = -0.335931 + 0.804509I$ $b = 0.922990 - 0.289493I$	$-2.08438 - 2.77960I$	$-10.17164 + 4.44197I$
$u = 0.913846 - 0.185540I$ $a = -0.335931 - 0.804509I$ $b = 0.922990 + 0.289493I$	$-2.08438 + 2.77960I$	$-10.17164 - 4.44197I$
$u = -0.835381 + 0.772928I$ $a = 0.47188 + 1.50692I$ $b = 0.98491 - 1.67790I$	$2.93158 + 5.78038I$	$-3.00000 - 8.73361I$
$u = -0.835381 - 0.772928I$ $a = 0.47188 - 1.50692I$ $b = 0.98491 + 1.67790I$	$2.93158 - 5.78038I$	$-3.00000 + 8.73361I$
$u = -0.597674 + 0.996526I$ $a = -0.095278 - 0.867392I$ $b = -0.19400 + 1.85191I$	$0.94420 + 4.84658I$	$0. - 16.7858I$
$u = -0.597674 - 0.996526I$ $a = -0.095278 + 0.867392I$ $b = -0.19400 - 1.85191I$	$0.94420 - 4.84658I$	$0. + 16.7858I$
$u = -0.815937 + 0.186566I$ $a = 0.64349 - 1.28176I$ $b = -0.673813 + 1.147990I$	$-4.23706 - 3.34809I$	$-10.42134 + 1.19861I$
$u = -0.815937 - 0.186566I$ $a = 0.64349 + 1.28176I$ $b = -0.673813 - 1.147990I$	$-4.23706 + 3.34809I$	$-10.42134 - 1.19861I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.963408 + 0.692141I$ $a = 1.132490 + 0.483149I$ $b = -0.25869 - 1.55132I$	$2.51794 - 0.16160I$	0
$u = -0.963408 - 0.692141I$ $a = 1.132490 - 0.483149I$ $b = -0.25869 + 1.55132I$	$2.51794 + 0.16160I$	0
$u = -0.636888 + 1.050190I$ $a = 0.675338 + 1.117000I$ $b = 0.329148 - 1.016950I$	$3.30459 + 1.24081I$	0
$u = -0.636888 - 1.050190I$ $a = 0.675338 - 1.117000I$ $b = 0.329148 + 1.016950I$	$3.30459 - 1.24081I$	0
$u = 0.903142 + 0.837436I$ $a = -0.89244 + 1.30977I$ $b = -0.35436 - 1.78012I$	$4.40850 - 3.12436I$	0
$u = 0.903142 - 0.837436I$ $a = -0.89244 - 1.30977I$ $b = -0.35436 + 1.78012I$	$4.40850 + 3.12436I$	0
$u = -0.557299 + 0.500566I$ $a = -1.78993 + 1.80158I$ $b = 0.421947 - 0.110229I$	$-3.04563 + 6.16036I$	$-5.83312 - 10.36352I$
$u = -0.557299 - 0.500566I$ $a = -1.78993 - 1.80158I$ $b = 0.421947 + 0.110229I$	$-3.04563 - 6.16036I$	$-5.83312 + 10.36352I$
$u = -0.736164$ $a = -0.886089$ $b = -0.812664$	-1.37116	-7.85670
$u = -0.288799 + 0.670270I$ $a = -0.549822 + 0.201160I$ $b = -0.231209 + 0.384240I$	$-0.74993 + 1.80678I$	$-3.40421 - 3.27437I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.288799 - 0.670270I$ $a = -0.549822 - 0.201160I$ $b = -0.231209 - 0.384240I$	$-0.74993 - 1.80678I$	$-3.40421 + 3.27437I$
$u = 0.710444 + 0.074039I$ $a = 1.60904 - 1.03329I$ $b = 1.205030 - 0.316628I$	$-4.51765 + 4.23526I$	$-12.34564 - 0.73227I$
$u = 0.710444 - 0.074039I$ $a = 1.60904 + 1.03329I$ $b = 1.205030 + 0.316628I$	$-4.51765 - 4.23526I$	$-12.34564 + 0.73227I$
$u = 0.965620 + 0.857282I$ $a = -0.820961 + 1.063210I$ $b = -0.18244 - 1.58681I$	$4.33842 - 3.23438I$	0
$u = 0.965620 - 0.857282I$ $a = -0.820961 - 1.063210I$ $b = -0.18244 + 1.58681I$	$4.33842 + 3.23438I$	0
$u = 0.563185 + 0.349209I$ $a = 0.166277 + 0.562597I$ $b = -2.08804 - 0.12116I$	$-3.78607 - 5.93938I$	$-6.42894 + 12.06653I$
$u = 0.563185 - 0.349209I$ $a = 0.166277 - 0.562597I$ $b = -2.08804 + 0.12116I$	$-3.78607 + 5.93938I$	$-6.42894 - 12.06653I$
$u = 0.802008 + 1.081440I$ $a = 0.618176 - 0.851982I$ $b = 0.02927 + 1.60011I$	$6.57814 + 2.00021I$	0
$u = 0.802008 - 1.081440I$ $a = 0.618176 + 0.851982I$ $b = 0.02927 - 1.60011I$	$6.57814 - 2.00021I$	0
$u = -0.790681 + 1.114590I$ $a = -0.805915 - 0.850484I$ $b = 0.14947 + 1.53184I$	$3.11102 - 8.02113I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.790681 - 1.114590I$ $a = -0.805915 + 0.850484I$ $b = 0.14947 - 1.53184I$	$3.11102 + 8.02113I$	0
$u = -0.292603 + 0.539944I$ $a = 0.367718 + 0.535422I$ $b = 0.956495 + 0.240511I$	$1.06170 + 1.95789I$	$2.50049 - 3.97543I$
$u = -0.292603 - 0.539944I$ $a = 0.367718 - 0.535422I$ $b = 0.956495 - 0.240511I$	$1.06170 - 1.95789I$	$2.50049 + 3.97543I$
$u = 0.549411 + 0.272810I$ $a = 0.49144 + 2.18390I$ $b = -0.042142 - 0.459151I$	$-0.60147 - 2.63277I$	$0.64260 + 6.35036I$
$u = 0.549411 - 0.272810I$ $a = 0.49144 - 2.18390I$ $b = -0.042142 + 0.459151I$	$-0.60147 + 2.63277I$	$0.64260 - 6.35036I$
$u = -1.40477$ $a = -0.402422$ $b = -0.427165$	-2.53971	0
$u = -1.030240 + 0.960055I$ $a = -0.435587 - 0.666622I$ $b = -0.65359 + 1.43821I$	$-0.48592 + 3.61316I$	0
$u = -1.030240 - 0.960055I$ $a = -0.435587 + 0.666622I$ $b = -0.65359 - 1.43821I$	$-0.48592 - 3.61316I$	0
$u = 0.91934 + 1.08476I$ $a = -0.616459 + 1.203170I$ $b = -0.238685 - 1.355140I$	$4.11263 - 3.83167I$	0
$u = 0.91934 - 1.08476I$ $a = -0.616459 - 1.203170I$ $b = -0.238685 + 1.355140I$	$4.11263 + 3.83167I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.11330 + 0.90983I$ $a = 0.632047 - 0.971558I$ $b = 0.65462 + 1.62579I$	$5.57747 - 9.21703I$	0
$u = 1.11330 - 0.90983I$ $a = 0.632047 + 0.971558I$ $b = 0.65462 - 1.62579I$	$5.57747 + 9.21703I$	0
$u = -1.12578 + 0.90724I$ $a = -0.566919 - 1.147900I$ $b = -0.72405 + 1.73806I$	$2.0157 + 15.3090I$	0
$u = -1.12578 - 0.90724I$ $a = -0.566919 + 1.147900I$ $b = -0.72405 - 1.73806I$	$2.0157 - 15.3090I$	0
$u = -1.21156 + 0.89742I$ $a = 0.397984 + 0.889144I$ $b = 0.173869 - 1.329530I$	$1.55527 + 5.89362I$	0
$u = -1.21156 - 0.89742I$ $a = 0.397984 - 0.889144I$ $b = 0.173869 + 1.329530I$	$1.55527 - 5.89362I$	0
$u = 1.51600 + 0.17015I$ $a = 0.324411 + 0.071542I$ $b = -0.043698 - 0.329284I$	$-7.03500 - 5.35259I$	0
$u = 1.51600 - 0.17015I$ $a = 0.324411 - 0.071542I$ $b = -0.043698 + 0.329284I$	$-7.03500 + 5.35259I$	0
$u = 0.234313 + 0.025877I$ $a = -3.28109 + 3.13603I$ $b = -0.065339 - 0.963971I$	$0.24228 - 2.13866I$	$-2.49155 + 4.03852I$
$u = 0.234313 - 0.025877I$ $a = -3.28109 - 3.13603I$ $b = -0.065339 + 0.963971I$	$0.24228 + 2.13866I$	$-2.49155 - 4.03852I$

II.
$\boldsymbol{I_2^u = \langle u^{10} - u^9 + \cdots + b - 2,\ -15u^{10} + 10u^9 + \cdots + a + 21,\ u^{11} - u^{10} + \cdots - 2u + 1\rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 15u^{10} - 10u^9 + \cdots - 7u - 21 \\ -u^{10} + u^9 + 3u^8 - 3u^7 - 4u^6 + 4u^5 + 7u^4 - 6u^3 - 7u^2 + 3u + 2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 14u^{10} - 9u^9 + \cdots - 4u - 19 \\ -u^{10} + u^9 + 3u^8 - 3u^7 - 4u^6 + 4u^5 + 7u^4 - 6u^3 - 7u^2 + 3u + 2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 20u^{10} - 14u^9 + \cdots - 11u - 26 \\ u^{10} - u^9 - 2u^8 + 2u^7 + 2u^6 - 2u^5 - 5u^4 + 4u^3 + 2u^2 - u + 1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -21u^{10} + 10u^9 + \cdots - u + 42 \\ -10u^{10} + 6u^9 + \cdots + 3u + 16 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 13u^{10} - 11u^9 + \cdots - 15u - 16 \\ 8u^{10} - 5u^9 + \cdots - 2u - 14 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -19u^{10} + 10u^9 + \cdots - 148u^2 + 35 \\ -6u^{10} + 3u^9 + \cdots - u + 10 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -19u^{10} + 10u^9 + \cdots - 148u^2 + 35 \\ -6u^{10} + 3u^9 + \cdots - u + 10 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= 37u^{10} - 17u^9 - 120u^8 + 48u^7 + 172u^6 - 57u^5 - 289u^4 + 70u^3 + 294u^2 + 3u - 78$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{11}+u^{10}-u^9-4u^8+u^6-2u^5-3u^4+3u^3+2u^2-u-1$
c_2	$u^{11}+u^{10}+2u^9+4u^8-2u^7+u^6-2u^5-9u^4+9u^3+2u^2-4u+1$
c_3	$u^{11}+5u^{10}+\cdots+4u+1$
c_4	$u^{11}-6u^{10}+\cdots+4u-1$
c_5, c_6	$u^{11}+u^{10}-3u^9-3u^8+4u^7+4u^6-7u^5-6u^4+7u^3+4u^2-2u-1$
c_7	$u^{11}+2u^{10}+5u^9+9u^8+9u^7+2u^6+5u^5+12u^4+10u^3-2u-1$
c_8	$u^{11}+4u^9-2u^8+6u^7-8u^6+u^5-13u^4-4u^3-7u^2-2u-1$
c_9	$u^{11}-u^{10}-3u^9+3u^8+4u^7-4u^6-7u^5+6u^4+7u^3-4u^2-2u+1$
c_{10}	$u^{11}+u^{10}-2u^9-3u^8+3u^7+2u^6-u^5+4u^3+u^2-u-1$
c_{11}	$u^{11}+4u^9+2u^8+6u^7+8u^6+u^5+13u^4-4u^3+7u^2-2u+1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{11} - 3y^{10} + \cdots + 5y - 1$
c_2	$y^{11} + 3y^{10} + \cdots + 12y - 1$
c_3	$y^{11} - 3y^{10} + \cdots + 20y^2 - 1$
c_4	$y^{11} - 4y^{10} + 18y^8 + 40y^7 + 28y^6 + 45y^5 + 75y^4 + 70y^3 + 5y^2 - 6y - 1$
c_5, c_6, c_9	$y^{11} - 7y^{10} + \cdots + 12y - 1$
c_7	$y^{11} + 6y^{10} + \cdots + 4y - 1$
c_8, c_{11}	$y^{11} + 8y^{10} + \cdots - 10y - 1$
c_{10}	$y^{11} - 5y^{10} + \cdots + 3y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.775260 + 0.879276I$ $a = 0.187286 + 0.932840I$ $b = 0.21109 - 1.51914I$	$0.70704 + 4.35639I$	$-5.54956 - 2.55288I$
$u = -0.775260 - 0.879276I$ $a = 0.187286 - 0.932840I$ $b = 0.21109 + 1.51914I$	$0.70704 - 4.35639I$	$-5.54956 + 2.55288I$
$u = -0.780915 + 0.043107I$ $a = 0.35176 + 1.37931I$ $b = -0.495745 - 0.113579I$	$-1.14703 + 2.08475I$	$-5.67789 + 0.04134I$
$u = -0.780915 - 0.043107I$ $a = 0.35176 - 1.37931I$ $b = -0.495745 + 0.113579I$	$-1.14703 - 2.08475I$	$-5.67789 - 0.04134I$
$u = 0.874107 + 0.934732I$ $a = -0.74222 + 1.34614I$ $b = -0.34039 - 1.50546I$	$3.59148 - 3.42396I$	$-7.58514 + 2.00100I$
$u = 0.874107 - 0.934732I$ $a = -0.74222 - 1.34614I$ $b = -0.34039 + 1.50546I$	$3.59148 + 3.42396I$	$-7.58514 - 2.00100I$
$u = 1.380430 + 0.112956I$ $a = 0.051000 + 0.348587I$ $b = -0.660833 - 0.171838I$	$-7.66458 - 5.46030I$	$-13.6502 + 4.8917I$
$u = 1.380430 - 0.112956I$ $a = 0.051000 - 0.348587I$ $b = -0.660833 + 0.171838I$	$-7.66458 + 5.46030I$	$-13.6502 - 4.8917I$
$u = -1.42602$ $a = 0.376679$ $b = 0.724774$	-2.78763	-26.4320
$u = 0.514652 + 0.025908I$ $a = 0.96384 + 2.00148I$ $b = 1.42350 - 0.12348I$	$-3.96271 - 5.00716I$	$-8.32130 + 5.65788I$

	Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u =$	$0.514652 - 0.025908I$		
$a =$	$0.96384 - 2.00148I$	$-3.96271 + 5.00716I$	$-8.32130 - 5.65788I$
$b =$	$1.42350 + 0.12348I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{11}+u^{10}-u^9-4u^8+u^6-2u^5-3u^4+3u^3+2u^2-u-1)$ $\cdot(u^{50}+8u^{49}+\cdots-87u+71)$
c_2	$(u^{11}+u^{10}+2u^9+4u^8-2u^7+u^6-2u^5-9u^4+9u^3+2u^2-4u+1)$ $\cdot(u^{50}+2u^{49}+\cdots+314u+193)$
c_3	$(u^{11}+5u^{10}+\cdots+4u+1)(u^{50}-6u^{49}+\cdots+10u-1)$
c_4	$(u^{11}-6u^{10}+\cdots+4u-1)(u^{50}-5u^{49}+\cdots+304u+403)$
c_5, c_6	$(u^{11}+u^{10}-3u^9-3u^8+4u^7+4u^6-7u^5-6u^4+7u^3+4u^2-2u-1)$ $\cdot(u^{50}+4u^{49}+\cdots-6u+1)$
c_7	$(u^{11}+2u^{10}+5u^9+9u^8+9u^7+2u^6+5u^5+12u^4+10u^3-2u-1)$ $\cdot(u^{50}+u^{49}+\cdots+512u+29)$
c_8	$(u^{11}+4u^9-2u^8+6u^7-8u^6+u^5-13u^4-4u^3-7u^2-2u-1)$ $\cdot(u^{50}+u^{49}+\cdots+3u^2+1)$
c_9	$(u^{11}-u^{10}-3u^9+3u^8+4u^7-4u^6-7u^5+6u^4+7u^3-4u^2-2u+1)$ $\cdot(u^{50}+4u^{49}+\cdots-6u+1)$
c_{10}	$(u^{11}+u^{10}-2u^9-3u^8+3u^7+2u^6-u^5+4u^3+u^2-u-1)$ $\cdot(u^{50}+2u^{49}+\cdots+13u-1)$
c_{11}	$(u^{11}+4u^9+2u^8+6u^7+8u^6+u^5+13u^4-4u^3+7u^2-2u+1)$ $\cdot(u^{50}+u^{49}+\cdots+3u^2+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{11} - 3y^{10} + \cdots + 5y - 1)(y^{50} - 20y^{49} + \cdots - 590053y + 5041)$
c_2	$(y^{11} + 3y^{10} + \cdots + 12y - 1)(y^{50} + 46y^{49} + \cdots + 780712y + 37249)$
c_3	$(y^{11} - 3y^{10} + \cdots + 20y^2 - 1)(y^{50} - 4y^{49} + \cdots - 154y^2 + 1)$
c_4	$(y^{11} - 4y^{10} + 18y^8 + 40y^7 + 28y^6 + 45y^5 + 75y^4 + 70y^3 + 5y^2 - 6y - 1)$ $\cdot (y^{50} - 45y^{49} + \cdots - 1305446y + 162409)$
c_5, c_6, c_9	$(y^{11} - 7y^{10} + \cdots + 12y - 1)(y^{50} - 12y^{49} + \cdots - 48y + 1)$
c_7	$(y^{11} + 6y^{10} + \cdots + 4y - 1)(y^{50} + 13y^{49} + \cdots - 327684y + 841)$
c_8, c_{11}	$(y^{11} + 8y^{10} + \cdots - 10y - 1)(y^{50} + 31y^{49} + \cdots + 6y + 1)$
c_{10}	$(y^{11} - 5y^{10} + \cdots + 3y - 1)(y^{50} - 2y^{49} + \cdots - 35y + 1)$