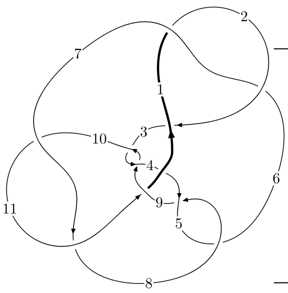
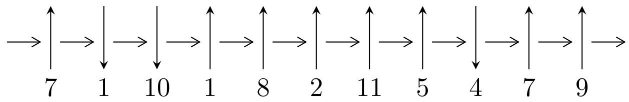
$11n_{134}$ ($K11n_{134}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 9.34789 \times 10^{32} u^{33} - 5.58712 \times 10^{32} u^{32} + \cdots + 1.57006 \times 10^{31} b - 1.59332 \times 10^{33},$$
$$3.16774 \times 10^{33} u^{33} - 1.98307 \times 10^{33} u^{32} + \cdots + 1.57006 \times 10^{31} a - 4.97227 \times 10^{33},\ u^{34} - 4u^{32} + \cdots - 8u - 1$$
$$I_2^u = \langle 2u^6 - u^5 - 3u^4 + 6u^3 + 2u^2 + b - 6u + 2,\ 3u^6 - u^5 - 4u^4 + 9u^3 + 4u^2 + a - 7u + 3,$$
$$u^7 - u^6 - u^5 + 4u^4 - u^3 - 3u^2 + 3u - 1\rangle$$
$$I_3^u = \langle u^2 + b - u - 1,\ -u^2 + a + 2u - 1,\ u^4 - 2u^3 + u + 1\rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 45 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.

$\boldsymbol{I_1^u = \langle 9.35\times 10^{32}u^{33} - 5.59\times 10^{32}u^{32} + \cdots + 1.57\times 10^{31}b - 1.59\times 10^{33},\ 3.17\times 10^{33}u^{33} - 1.98\times 10^{33}u^{32} + \cdots + 1.57\times 10^{31}a - 4.97\times 10^{33},\ u^{34} - 4u^{32} + \cdots - 8u - 1\rangle}$

(i) Arc colorings

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

$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -201.759u^{33} + 126.306u^{32} + \cdots + 2044.63u + 316.694 \\ -59.5386u^{33} + 35.5855u^{32} + \cdots + 631.913u + 101.482 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -64.0473u^{33} + 42.6334u^{32} + \cdots + 604.027u + 88.9064 \\ -110.441u^{33} + 66.5690u^{32} + \cdots + 1163.58u + 185.154 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 126.520u^{33} - 77.8350u^{32} + \cdots - 1331.80u - 221.282 \\ 144.062u^{33} - 89.2523u^{32} + \cdots - 1486.79u - 232.342 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -17.5420u^{33} + 11.4173u^{32} + \cdots + 154.996u + 11.0598 \\ 144.062u^{33} - 89.2523u^{32} + \cdots - 1486.79u - 232.342 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 191.791u^{33} - 115.291u^{32} + \cdots - 2025.26u - 313.383 \\ -1.17243u^{33} + 1.47552u^{32} + \cdots + 5.92933u + 1.12007 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 123.827u^{33} - 75.2327u^{32} + \cdots - 1300.65u - 199.211 \\ 22.2954u^{33} - 12.2052u^{32} + \cdots - 246.576u - 38.9385 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -403.100u^{33} + 247.007u^{32} + \cdots + 4184.10u + 645.587 \\ -156.172u^{33} + 97.4389u^{32} + \cdots + 1597.51u + 249.393 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -68.1247u^{33} + 44.5777u^{32} + \cdots + 659.086u + 90.0150 \\ 28.9676u^{33} - 18.5354u^{32} + \cdots - 294.427u - 45.6978 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -68.1247u^{33} + 44.5777u^{32} + \cdots + 659.086u + 90.0150 \\ 28.9676u^{33} - 18.5354u^{32} + \cdots - 294.427u - 45.6978 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 263.563u^{33} - 150.065u^{32} + \cdots - 2900.73u - 454.146$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{34} + u^{33} + \cdots - 223u + 11$
c_2	$u^{34} + 39u^{33} + \cdots - 30545u + 121$
c_3, c_9	$u^{34} + 2u^{32} + \cdots - 30u + 11$
c_4	$u^{34} + 6u^{33} + \cdots + 88u - 16$
c_5, c_8	$u^{34} + 3u^{33} + \cdots + 73u + 11$
c_7, c_{10}	$u^{34} - u^{33} + \cdots - 33u - 1$
c_{11}	$u^{34} - 4u^{32} + \cdots - 8u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{34} + 39y^{33} + \cdots - 30545y + 121$
c_2	$y^{34} - 89y^{33} + \cdots - 1039040457y + 14641$
c_3, c_9	$y^{34} + 4y^{33} + \cdots - 1054y + 121$
c_4	$y^{34} + 18y^{33} + \cdots - 5440y + 256$
c_5, c_8	$y^{34} + 29y^{33} + \cdots + 1513y + 121$
c_7, c_{10}	$y^{34} + 3y^{33} + \cdots - 1291y + 1$
c_{11}	$y^{34} - 8y^{33} + \cdots - 28y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.924018 + 0.522770I$ $a = -0.375288 - 1.086530I$ $b = -0.664139 + 0.876476I$	$-0.24666 + 2.01770I$	$4.06600 - 3.01899I$
$u = 0.924018 - 0.522770I$ $a = -0.375288 + 1.086530I$ $b = -0.664139 - 0.876476I$	$-0.24666 - 2.01770I$	$4.06600 + 3.01899I$
$u = -0.692709 + 0.537257I$ $a = -1.68375 - 0.87571I$ $b = -0.097108 - 0.209897I$	$-4.70800 - 5.46166I$	$4.56324 + 8.11055I$
$u = -0.692709 - 0.537257I$ $a = -1.68375 + 0.87571I$ $b = -0.097108 + 0.209897I$	$-4.70800 + 5.46166I$	$4.56324 - 8.11055I$
$u = -1.174930 + 0.138364I$ $a = 0.388486 - 0.340737I$ $b = 0.104920 - 0.756129I$	$5.26138 - 1.82293I$	$12.08014 + 4.65351I$
$u = -1.174930 - 0.138364I$ $a = 0.388486 + 0.340737I$ $b = 0.104920 + 0.756129I$	$5.26138 + 1.82293I$	$12.08014 - 4.65351I$
$u = -0.737393 + 0.938306I$ $a = -0.971739 + 0.588253I$ $b = -1.48087 - 0.04096I$	$-4.16665 + 0.08364I$	$1.19426 - 1.11998I$
$u = -0.737393 - 0.938306I$ $a = -0.971739 - 0.588253I$ $b = -1.48087 + 0.04096I$	$-4.16665 - 0.08364I$	$1.19426 + 1.11998I$
$u = 0.748098 + 1.032910I$ $a = -0.963309 - 0.180793I$ $b = -1.65602 + 0.67677I$	$-1.76083 + 4.62537I$	$0. - 4.38948I$
$u = 0.748098 - 1.032910I$ $a = -0.963309 + 0.180793I$ $b = -1.65602 - 0.67677I$	$-1.76083 - 4.62537I$	$0. + 4.38948I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.753821 + 1.029380I$ $a = 1.30677 + 0.54848I$ $b = 1.49027 - 0.72971I$	$-11.55110 + 3.90804I$	$0. - 2.96330I$
$u = 0.753821 - 1.029380I$ $a = 1.30677 - 0.54848I$ $b = 1.49027 + 0.72971I$	$-11.55110 - 3.90804I$	$0. + 2.96330I$
$u = 0.680135$ $a = -1.12718$ $b = 0.231739$	1.42028	5.52280
$u = 0.112186 + 0.644139I$ $a = 0.298589 - 0.208281I$ $b = -0.77348 - 1.72822I$	$-5.69136 + 2.93128I$	$-2.16566 + 0.03766I$
$u = 0.112186 - 0.644139I$ $a = 0.298589 + 0.208281I$ $b = -0.77348 + 1.72822I$	$-5.69136 - 2.93128I$	$-2.16566 - 0.03766I$
$u = 0.453287 + 0.469740I$ $a = -0.109156 - 0.662192I$ $b = 0.134371 + 0.558494I$	$0.417699 + 1.309310I$	$4.01409 - 5.53427I$
$u = 0.453287 - 0.469740I$ $a = -0.109156 + 0.662192I$ $b = 0.134371 - 0.558494I$	$0.417699 - 1.309310I$	$4.01409 + 5.53427I$
$u = 0.929612 + 0.997075I$ $a = 0.739202 + 0.328423I$ $b = 1.79013 - 0.25646I$	$-1.19710 + 4.22413I$	0
$u = 0.929612 - 0.997075I$ $a = 0.739202 - 0.328423I$ $b = 1.79013 + 0.25646I$	$-1.19710 - 4.22413I$	0
$u = -1.090570 + 0.830918I$ $a = 0.948911 - 0.688424I$ $b = 1.45111 + 0.57971I$	$-3.08759 - 6.63875I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.090570 - 0.830918I$ $a = 0.948911 + 0.688424I$ $b = 1.45111 - 0.57971I$	$-3.08759 + 6.63875I$	0
$u = -0.622046 + 0.005377I$ $a = -1.15689 - 1.34706I$ $b = -1.42222 - 0.22309I$	$-4.73573 + 2.86800I$	$6.77612 - 0.77716I$
$u = -0.622046 - 0.005377I$ $a = -1.15689 + 1.34706I$ $b = -1.42222 + 0.22309I$	$-4.73573 - 2.86800I$	$6.77612 + 0.77716I$
$u = -0.585191$ $a = 2.47240$ $b = 0.385356$	2.39902	-9.40470
$u = 1.17107 + 0.83565I$ $a = -0.599060 - 0.768632I$ $b = -1.62594 - 0.21586I$	$-10.20860 + 2.99636I$	0
$u = 1.17107 - 0.83565I$ $a = -0.599060 + 0.768632I$ $b = -1.62594 + 0.21586I$	$-10.20860 - 2.99636I$	0
$u = -0.89276 + 1.21384I$ $a = 0.677208 - 0.690623I$ $b = 1.67380 + 0.04106I$	$-11.26850 + 5.15956I$	0
$u = -0.89276 - 1.21384I$ $a = 0.677208 + 0.690623I$ $b = 1.67380 - 0.04106I$	$-11.26850 - 5.15956I$	0
$u = -1.15354 + 0.99005I$ $a = -0.987284 + 0.511276I$ $b = -1.81085 - 0.79676I$	$-10.3471 - 13.0489I$	0
$u = -1.15354 - 0.99005I$ $a = -0.987284 - 0.511276I$ $b = -1.81085 + 0.79676I$	$-10.3471 + 13.0489I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$1.49990+0.45110I$		
$a=$	$0.044192+0.529855I$	$1.03541+1.94405I$	0
$b=$	$0.493623-0.408556I$		
$u=$	$1.49990-0.45110I$		
$a=$	$0.044192-0.529855I$	$1.03541-1.94405I$	0
$b=$	$0.493623+0.408556I$		
$u=$	$-0.275516+0.088727I$		
$a=$	$3.27050-3.61161I$	$1.94989-1.48394I$	$11.56368-0.88523I$
$b=$	$0.583860+0.707675I$		
$u=$	$-0.275516-0.088727I$		
$a=$	$3.27050+3.61161I$	$1.94989+1.48394I$	$11.56368+0.88523I$
$b=$	$0.583860-0.707675I$		

II. $\boldsymbol{I_2^u = \langle 2u^6 - u^5 - 3u^4 + 6u^3 + 2u^2 + b - 6u + 2,\ 3u^6 - u^5 - 4u^4 + 9u^3 + 4u^2 + a - 7u + 3,\ u^7 - u^6 - u^5 + 4u^4 - u^3 - 3u^2 + 3u - 1\rangle}$

(i) Arc colorings

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

$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -3u^6 + u^5 + 4u^4 - 9u^3 - 4u^2 + 7u - 3 \\ -2u^6 + u^5 + 3u^4 - 6u^3 - 2u^2 + 6u - 2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u^5 + u^3 - 2u^2 - 2u + 1 \\ -2u^6 + 2u^5 + 2u^4 - 7u^3 + 6u - 3 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u^6 + u^4 - 3u^3 - 2u^2 + u - 2 \\ u^6 - u^5 - u^4 + 4u^3 - u^2 - 3u + 2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -2u^6 + u^5 + 2u^4 - 7u^3 - u^2 + 4u - 4 \\ u^6 - u^5 - u^4 + 4u^3 - u^2 - 3u + 2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -2u^6 + 2u^4 - 5u^3 - 4u^2 + 2u - 1 \\ -u^6 + 2u^4 - 3u^3 - 3u^2 + 3u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^6 - u^5 - 2u^4 + 4u^3 - 5u + 1 \\ -2u^6 + u^5 + 3u^4 - 7u^3 - 2u^2 + 6u - 2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -7u^6 + 3u^5 + 9u^4 - 23u^3 - 7u^2 + 18u - 10 \\ -u^6 + u^5 + 2u^4 - 4u^3 + 5u - 2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -2u^6 + u^5 + 3u^4 - 7u^3 - 2u^2 + 7u - 3 \\ u^6 - 2u^4 + 3u^3 + 3u^2 - 4u + 1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -2u^6 + u^5 + 3u^4 - 7u^3 - 2u^2 + 7u - 3 \\ u^6 - 2u^4 + 3u^3 + 3u^2 - 4u + 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 21u^6 - 10u^5 - 27u^4 + 69u^3 + 15u^2 - 57u + 38$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^7+3u^5+u^4+u^3+3u^2-u+1$
c_2	$u^7+6u^6+11u^5+3u^4-11u^3-13u^2-5u-1$
c_3	$u^7+2u^5+u^3+u^2+u+1$
c_4	$u^7-u^6+2u^5-4u^4+13u^3-28u^2+37u-21$
c_5	$u^7+u^6+u^5+u^4+2u^2+1$
c_6	$u^7+3u^5-u^4+u^3-3u^2-u-1$
c_7	$u^7-4u^6+6u^5-6u^4+5u^3-u^2-u+1$
c_8	$u^7-u^6+u^5-u^4-2u^2-1$
c_9	$u^7+2u^5+u^3-u^2+u-1$
c_{10}	$u^7+4u^6+6u^5+6u^4+5u^3+u^2-u-1$
c_{11}	$u^7-u^6-u^5+4u^4-u^3-3u^2+3u-1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^7 + 6y^6 + 11y^5 + 3y^4 - 11y^3 - 13y^2 - 5y - 1$
c_2	$y^7 - 14y^6 + 63y^5 - 105y^4 + 101y^3 - 53y^2 - y - 1$
c_3, c_9	$y^7 + 4y^6 + 6y^5 + 6y^4 + 5y^3 + y^2 - y - 1$
c_4	$y^7 + 3y^6 + 22y^5 + 54y^4 + 51y^3 + 10y^2 + 193y - 441$
c_5, c_8	$y^7 + y^6 - y^5 - 5y^4 - 6y^3 - 6y^2 - 4y - 1$
c_7, c_{10}	$y^7 - 4y^6 - 2y^5 + 14y^4 + 9y^3 + y^2 + 3y - 1$
c_{11}	$y^7 - 3y^6 + 7y^5 - 14y^4 + 17y^3 - 7y^2 + 3y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.253390 + 0.299435I$ $a = -0.106502 + 0.574481I$ $b = -0.670425 + 0.632428I$	$4.48789 - 1.14089I$	$4.48970 - 0.40326I$
$u = -1.253390 - 0.299435I$ $a = -0.106502 - 0.574481I$ $b = -0.670425 - 0.632428I$	$4.48789 + 1.14089I$	$4.48970 + 0.40326I$
$u = 0.459759 + 0.484378I$ $a = 1.43538 - 0.05783I$ $b = 1.46152 + 0.86219I$	$-5.24144 + 3.67154I$	$2.26281 - 7.80389I$
$u = 0.459759 - 0.484378I$ $a = 1.43538 + 0.05783I$ $b = 1.46152 - 0.86219I$	$-5.24144 - 3.67154I$	$2.26281 + 7.80389I$
$u = 0.667034$ $a = -2.12191$ $b = -0.118597$	2.66082	22.3150
$u = 0.96011 + 1.04993I$ $a = -0.767929 - 0.281521I$ $b = -1.73179 + 0.66955I$	$-0.57687 + 5.05320I$	$8.58977 - 8.09248I$
$u = 0.96011 - 1.04993I$ $a = -0.767929 + 0.281521I$ $b = -1.73179 - 0.66955I$	$-0.57687 - 5.05320I$	$8.58977 + 8.09248I$

III. $\boldsymbol{I_3^u = \langle u^2 + b - u - 1,\ -u^2 + a + 2u - 1,\ u^4 - 2u^3 + u + 1\rangle}$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= u^3 - 8u^2 + 11u + 11$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6	$(y^2+y+1)^2$
c_3, c_5, c_8 c_9	$y^4+5y^3+9y^2+5y+1$
c_4	y^4
c_7, c_{10}	$(y-1)^4$
c_{11}	$y^4-4y^3+6y^2-y+1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.473561 + 0.444772I$ $a = 1.97356 - 1.31080I$ $b = 0.500000 + 0.866025I$	$1.64493 - 2.02988I$	$5.75416 + 8.47377I$
$u = -0.473561 - 0.444772I$ $a = 1.97356 + 1.31080I$ $b = 0.500000 - 0.866025I$	$1.64493 + 2.02988I$	$5.75416 - 8.47377I$
$u = 1.47356 + 0.44477I$ $a = 0.026439 + 0.421254I$ $b = 0.500000 - 0.866025I$	$1.64493 + 2.02988I$	$13.74584 - 2.78456I$
$u = 1.47356 - 0.44477I$ $a = 0.026439 - 0.421254I$ $b = 0.500000 + 0.866025I$	$1.64493 - 2.02988I$	$13.74584 + 2.78456I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^2+u+1)^2(u^7+3u^5+u^4+u^3+3u^2-u+1)$ $\cdot(u^{34}+u^{33}+\cdots-223u+11)$
c_2	$(u^2+u+1)^2(u^7+6u^6+11u^5+3u^4-11u^3-13u^2-5u-1)$ $\cdot(u^{34}+39u^{33}+\cdots-30545u+121)$
c_3	$(u^4+u^3+3u^2+u+1)(u^7+2u^5+u^3+u^2+u+1)$ $\cdot(u^{34}+2u^{32}+\cdots-30u+11)$
c_4	$u^4(u^7-u^6+2u^5-4u^4+13u^3-28u^2+37u-21)$ $\cdot(u^{34}+6u^{33}+\cdots+88u-16)$
c_5	$(u^4+u^3+3u^2+u+1)(u^7+u^6+u^5+u^4+2u^2+1)$ $\cdot(u^{34}+3u^{33}+\cdots+73u+11)$
c_6	$(u^2-u+1)^2(u^7+3u^5-u^4+u^3-3u^2-u-1)$ $\cdot(u^{34}+u^{33}+\cdots-223u+11)$
c_7	$(u+1)^4(u^7-4u^6+6u^5-6u^4+5u^3-u^2-u+1)$ $\cdot(u^{34}-u^{33}+\cdots-33u-1)$
c_8	$(u^4-u^3+3u^2-u+1)(u^7-u^6+u^5-u^4-2u^2-1)$ $\cdot(u^{34}+3u^{33}+\cdots+73u+11)$
c_9	$(u^4-u^3+3u^2-u+1)(u^7+2u^5+u^3-u^2+u-1)$ $\cdot(u^{34}+2u^{32}+\cdots-30u+11)$
c_{10}	$(u-1)^4(u^7+4u^6+6u^5+6u^4+5u^3+u^2-u-1)$ $\cdot(u^{34}-u^{33}+\cdots-33u-1)$
c_{11}	$(u^4-2u^3+u+1)(u^7-u^6-u^5+4u^4-u^3-3u^2+3u-1)$ $\cdot(u^{34}-4u^{32}+\cdots-8u-1)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$(y^2+y+1)^2(y^7+6y^6+11y^5+3y^4-11y^3-13y^2-5y-1)$ $\cdot(y^{34}+39y^{33}+\cdots-30545y+121)$
c_2	$(y^2+y+1)^2(y^7-14y^6+63y^5-105y^4+101y^3-53y^2-y-1)$ $\cdot(y^{34}-89y^{33}+\cdots-1039040457y+14641)$
c_3, c_9	$(y^4+5y^3+9y^2+5y+1)(y^7+4y^6+6y^5+6y^4+5y^3+y^2-y-1)$ $\cdot(y^{34}+4y^{33}+\cdots-1054y+121)$
c_4	$y^4(y^7+3y^6+22y^5+54y^4+51y^3+10y^2+193y-441)$ $\cdot(y^{34}+18y^{33}+\cdots-5440y+256)$
c_5, c_8	$(y^4+5y^3+9y^2+5y+1)(y^7+y^6-y^5-5y^4-6y^3-6y^2-4y-1)$ $\cdot(y^{34}+29y^{33}+\cdots+1513y+121)$
c_7, c_{10}	$(y-1)^4(y^7-4y^6-2y^5+14y^4+9y^3+y^2+3y-1)$ $\cdot(y^{34}+3y^{33}+\cdots-1291y+1)$
c_{11}	$(y^4-4y^3+6y^2-y+1)(y^7-3y^6+\cdots+3y-1)$ $\cdot(y^{34}-8y^{33}+\cdots-28y+1)$