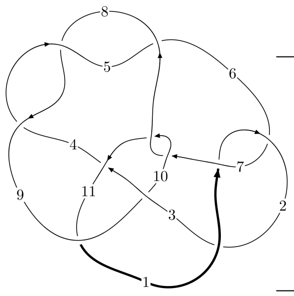
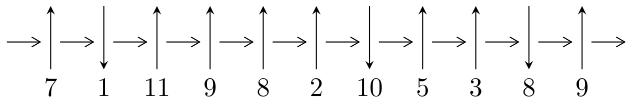
$11n_{131}$ $(K11n_{131})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -9.69653\times 10^{36}u^{43} + 1.93812\times 10^{38}u^{42} + \cdots + 1.36546\times 10^{39}b + 1.44554\times 10^{39},$$
$$2.34671\times 10^{40}u^{43} - 2.31254\times 10^{39}u^{42} + \cdots + 2.59437\times 10^{40}a + 1.06428\times 10^{41},\ u^{44} + 8u^{42} + \cdots + 28u +$$
$$I_2^u = \langle -u^{10} - 2u^9 - 3u^8 - 5u^7 - 6u^6 - 10u^5 - 9u^4 - 8u^3 - 9u^2 + b - 4u - 4,$$
$$-u^9 - u^8 - 2u^7 - 2u^6 - 3u^5 - 5u^4 - 2u^3 - 3u^2 + a - u - 2,$$
$$u^{11} + u^{10} + 3u^9 + 3u^8 + 5u^7 + 7u^6 + 5u^5 + 8u^4 + 3u^3 + 5u^2 + u + 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 55 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. $I_1^u = \langle -9.70\times10^{36}u^{43} + 1.94\times10^{38}u^{42} + \cdots + 1.37\times10^{39}b + 1.45\times10^{39},\ 2.35\times10^{40}u^{43} - 2.31\times10^{39}u^{42} + \cdots + 2.59\times10^{40}a + 1.06\times10^{41},\ u^{44} + 8u^{42} + \cdots + 28u + 19\rangle$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix}0\\u\end{pmatrix}$$

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

$$a_3 = \begin{pmatrix}u^2+1\\-u^2\end{pmatrix}$$

$$a_{10} = \begin{pmatrix}-0.904540u^{43} + 0.0891368u^{42} + \cdots - 28.1734u - 4.10227\\0.00710130u^{43} - 0.141939u^{42} + \cdots - 5.47040u - 1.05865\end{pmatrix}$$

$$a_8 = \begin{pmatrix}0.129802u^{43} - 0.616286u^{42} + \cdots - 13.9864u - 18.1892\\-0.112721u^{43} + 0.238849u^{42} + \cdots - 2.68255u + 7.40994\end{pmatrix}$$

$$a_6 = \begin{pmatrix}-u\\u^3+u\end{pmatrix}$$

$$a_5 = \begin{pmatrix}0.855694u^{43} + 0.294688u^{42} + \cdots + 42.8937u + 18.2259\\-0.198202u^{43} - 0.0959296u^{42} + \cdots - 8.51213u - 7.37608\end{pmatrix}$$

$$a_9 = \begin{pmatrix}-1.12405u^{43} - 0.0401899u^{42} + \cdots - 35.9422u - 8.61657\\-0.406276u^{43} + 0.227899u^{42} + \cdots - 10.7610u + 3.51106\end{pmatrix}$$

$$a_{11} = \begin{pmatrix}-0.232879u^{43} + 0.618756u^{42} + \cdots + 6.55564u + 18.5444\\0.0121303u^{43} + 0.0705266u^{42} + \cdots + 6.59355u + 5.72029\end{pmatrix}$$

$$a_4 = \begin{pmatrix}-0.925125u^{43} + 0.652168u^{42} + \cdots - 16.2508u + 7.52727\\0.107850u^{43} + 0.505554u^{42} + \cdots + 18.8829u + 20.6647\end{pmatrix}$$

$$a_4 = \begin{pmatrix}-0.925125u^{43} + 0.652168u^{42} + \cdots - 16.2508u + 7.52727\\0.107850u^{43} + 0.505554u^{42} + \cdots + 18.8829u + 20.6647\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.830501u^{43} - 1.97049u^{42} + \cdots - 84.2334u - 62.6447$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{44} + 8u^{42} + \cdots + 28u + 19$
c_2	$u^{44} + 16u^{43} + \cdots + 3928u + 361$
c_3	$u^{44} + 4u^{43} + \cdots + 13u + 1$
c_4, c_5, c_8	$u^{44} + 2u^{43} + \cdots - 11u - 1$
c_7, c_{10}	$u^{44} + u^{43} + \cdots - 41u + 11$
c_9	$u^{44} - u^{43} + \cdots - 14u - 1$
c_{11}	$u^{44} + 2u^{43} + \cdots + 12u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{44} + 16y^{43} + \cdots + 3928y + 361$
c_2	$y^{44} + 24y^{43} + \cdots - 363932y + 130321$
c_3	$y^{44} - 42y^{43} + \cdots - 5y + 1$
c_4, c_5, c_8	$y^{44} + 12y^{43} + \cdots - 37y + 1$
c_7, c_{10}	$y^{44} - 15y^{43} + \cdots - 2869y + 121$
c_9	$y^{44} + 7y^{43} + \cdots - 54y + 1$
c_{11}	$y^{44} - 38y^{43} + \cdots - 96y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.553611 + 0.824772I$ $a = 0.447859 + 1.150180I$ $b = -1.49583 - 0.39989I$	$-3.21451 - 2.15595I$	$1.07743 + 2.96858I$
$u = -0.553611 - 0.824772I$ $a = 0.447859 - 1.150180I$ $b = -1.49583 + 0.39989I$	$-3.21451 + 2.15595I$	$1.07743 - 2.96858I$
$u = 0.691309 + 0.811314I$ $a = -1.341520 + 0.125641I$ $b = -0.247744 + 0.790756I$	$4.27651 - 0.41832I$	$5.68762 - 0.89780I$
$u = 0.691309 - 0.811314I$ $a = -1.341520 - 0.125641I$ $b = -0.247744 - 0.790756I$	$4.27651 + 0.41832I$	$5.68762 + 0.89780I$
$u = -0.749080 + 0.765100I$ $a = 0.129349 - 1.222590I$ $b = 0.61597 + 1.72869I$	$5.60971 + 1.02097I$	$7.05881 + 0.21382I$
$u = -0.749080 - 0.765100I$ $a = 0.129349 + 1.222590I$ $b = 0.61597 - 1.72869I$	$5.60971 - 1.02097I$	$7.05881 - 0.21382I$
$u = -0.358331 + 0.841835I$ $a = 0.73681 + 1.63006I$ $b = -0.800323 - 0.656423I$	$-4.31132 - 1.52913I$	$4.89215 + 5.65142I$
$u = -0.358331 - 0.841835I$ $a = 0.73681 - 1.63006I$ $b = -0.800323 + 0.656423I$	$-4.31132 + 1.52913I$	$4.89215 - 5.65142I$
$u = 0.724746 + 0.501149I$ $a = 0.790041 + 0.280445I$ $b = 0.212674 - 0.438603I$	$1.31409 + 0.60593I$	$8.59743 - 3.14385I$
$u = 0.724746 - 0.501149I$ $a = 0.790041 - 0.280445I$ $b = 0.212674 + 0.438603I$	$1.31409 - 0.60593I$	$8.59743 + 3.14385I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.672004 + 0.909211I$ $a = -0.118766 + 1.200990I$ $b = 0.67880 - 1.94511I$	$3.96994 + 5.67612I$	$4.70172 - 5.28440I$
$u = 0.672004 - 0.909211I$ $a = -0.118766 - 1.200990I$ $b = 0.67880 + 1.94511I$	$3.96994 - 5.67612I$	$4.70172 + 5.28440I$
$u = -0.305333 + 1.097040I$ $a = 0.502841 + 0.752892I$ $b = -0.431064 - 0.191810I$	$-3.64801 - 0.66413I$	$-0.67434 - 1.82360I$
$u = -0.305333 - 1.097040I$ $a = 0.502841 - 0.752892I$ $b = -0.431064 + 0.191810I$	$-3.64801 + 0.66413I$	$-0.67434 + 1.82360I$
$u = -0.724813 + 0.904533I$ $a = -0.048082 - 0.448492I$ $b = 1.168590 - 0.034882I$	$-4.81373 - 2.81453I$	$7.83387 + 2.63389I$
$u = -0.724813 - 0.904533I$ $a = -0.048082 + 0.448492I$ $b = 1.168590 + 0.034882I$	$-4.81373 + 2.81453I$	$7.83387 - 2.63389I$
$u = -0.155660 + 0.819694I$ $a = -0.50119 - 1.50907I$ $b = -0.837138 + 0.913868I$	$-8.09531 - 0.68903I$	$-3.33839 - 2.14717I$
$u = -0.155660 - 0.819694I$ $a = -0.50119 + 1.50907I$ $b = -0.837138 - 0.913868I$	$-8.09531 + 0.68903I$	$-3.33839 + 2.14717I$
$u = -1.035790 + 0.563745I$ $a = -1.135220 + 0.231350I$ $b = 0.457170 - 1.082790I$	$4.92535 + 7.92322I$	$5.81282 - 4.97707I$
$u = -1.035790 - 0.563745I$ $a = -1.135220 - 0.231350I$ $b = 0.457170 + 1.082790I$	$4.92535 - 7.92322I$	$5.81282 + 4.97707I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.702097+0.948685I$ $a=-1.230740+0.211924I$ $b=-0.165846-1.175810I$	$5.04402-6.54331I$	$5.65027+5.81604I$
$u=-0.702097-0.948685I$ $a=-1.230740-0.211924I$ $b=-0.165846+1.175810I$	$5.04402+6.54331I$	$5.65027-5.81604I$
$u=\ 0.191318+0.786546I$ $a=-0.321704+0.371146I$ $b=\ 2.20155-0.83164I$	$1.02150-1.91904I$	$-0.873774-0.783296I$
$u=\ 0.191318-0.786546I$ $a=-0.321704-0.371146I$ $b=\ 2.20155+0.83164I$	$1.02150+1.91904I$	$-0.873774+0.783296I$
$u=-0.525867+1.092400I$ $a=-0.400089+1.030590I$ $b=-1.09956-1.76264I$	$-2.17094-6.60740I$	$-0.69632+10.88929I$
$u=-0.525867-1.092400I$ $a=-0.400089-1.030590I$ $b=-1.09956+1.76264I$	$-2.17094+6.60740I$	$-0.69632-10.88929I$
$u=\ 0.769126$ $a=\ 0.807876$ $b=\ 0.267033$	1.54727	4.67400
$u=\ 1.004830+0.721198I$ $a=-0.817876-0.261435I$ $b=\ 0.420704+1.060050I$	$5.67789-0.23429I$	$7.33450+1.57451I$
$u=\ 1.004830-0.721198I$ $a=-0.817876+0.261435I$ $b=\ 0.420704-1.060050I$	$5.67789+0.23429I$	$7.33450-1.57451I$
$u=-0.038388+0.751954I$ $a=\ 1.43109+0.27249I$ $b=\ 1.141290+0.618112I$	$0.97471+2.65784I$	$-0.64848-4.81672I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.038388 - 0.751954I$ $a = 1.43109 - 0.27249I$ $b = 1.141290 - 0.618112I$	$0.97471 - 2.65784I$	$-0.64848 + 4.81672I$
$u = 0.489616 + 1.163080I$ $a = 0.051203 - 0.505529I$ $b = -0.89249 + 1.30630I$	$-1.75776 + 4.42520I$	$0. - 2.66999I$
$u = 0.489616 - 1.163080I$ $a = 0.051203 + 0.505529I$ $b = -0.89249 - 1.30630I$	$-1.75776 - 4.42520I$	$0. + 2.66999I$
$u = -0.634927 + 0.276340I$ $a = 1.29507 - 0.74684I$ $b = -0.103239 + 0.918524I$	$0.09044 + 2.10677I$	$3.45567 - 5.29032I$
$u = -0.634927 - 0.276340I$ $a = 1.29507 + 0.74684I$ $b = -0.103239 - 0.918524I$	$0.09044 - 2.10677I$	$3.45567 + 5.29032I$
$u = 0.725736 + 1.115000I$ $a = 0.122771 - 0.880273I$ $b = -0.87157 + 1.15445I$	$-0.55823 + 5.04012I$	$8.95344 - 5.95960I$
$u = 0.725736 - 1.115000I$ $a = 0.122771 + 0.880273I$ $b = -0.87157 - 1.15445I$	$-0.55823 - 5.04012I$	$8.95344 + 5.95960I$
$u = 1.33218$ $a = 0.419650$ $b = -0.343484$	2.55385	-14.8810
$u = 0.801504 + 1.072620I$ $a = 0.171221 + 0.993803I$ $b = 1.18028 - 1.27689I$	$4.52542 + 6.79447I$	$5.00000 - 4.75364I$
$u = 0.801504 - 1.072620I$ $a = 0.171221 - 0.993803I$ $b = 1.18028 + 1.27689I$	$4.52542 - 6.79447I$	$5.00000 + 4.75364I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.748515 + 1.151140I$ $a = 0.050409 - 1.131160I$ $b = 1.37231 + 1.59702I$	$3.0688 - 14.3723I$	$0. + 8.23244I$
$u = -0.748515 - 1.151140I$ $a = 0.050409 + 1.131160I$ $b = 1.37231 - 1.59702I$	$3.0688 + 14.3723I$	$0. - 8.23244I$
$u = 0.180695 + 1.380020I$ $a = -0.137763 - 0.704470I$ $b = 0.033690 + 0.557996I$	$-3.28704 + 5.28886I$	$0. - 7.01858I$
$u = 0.180695 - 1.380020I$ $a = -0.137763 + 0.704470I$ $b = 0.033690 - 0.557996I$	$-3.28704 - 5.28886I$	$0. + 7.01858I$

II.

$\boldsymbol{I_2^u = \langle -u^{10} - 2u^9 + \cdots + b - 4,\ -u^9 - u^8 + \cdots + a - 2,\ u^{11} + u^{10} + \cdots + u + 1\rangle}$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} u^2+1 \\ -u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^9+u^8+2u^7+2u^6+3u^5+5u^4+2u^3+3u^2+u+2 \\ u^{10}+2u^9+3u^8+5u^7+6u^6+10u^5+9u^4+8u^3+9u^2+4u+4 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -3u^{10}-2u^9-6u^8-5u^7-8u^6-13u^5-3u^4-11u^3-4u+1 \\ 2u^9+u^8+4u^7+3u^6+5u^5+8u^4+u^3+8u^2+3 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u \\ u^3+u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^9+u^8+2u^7+2u^6+2u^5+4u^4+u^3+2u^2-u-1 \\ -u^9-u^8-2u^7-2u^6-3u^5-5u^4-2u^3-4u^2-u-2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^7-u^6-u^5-u^4-u^3-3u^2 \\ u^{10}+3u^9+4u^8+7u^7+8u^6+12u^5+13u^4+9u^3+11u^2+4u+4 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 3u^{10}+4u^9+\cdots+8u+5 \\ 2u^{10}+u^9+5u^8+4u^7+7u^6+11u^5+4u^4+13u^3+2u^2+6u+2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -2u^{10}-u^9-5u^8-4u^7-7u^6-11u^5-4u^4-13u^3-u^2-6u-1 \\ -u^{10}-2u^9-4u^8-5u^7-7u^6-10u^5-10u^4-10u^3-7u^2-6u-3 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -2u^{10}-u^9-5u^8-4u^7-7u^6-11u^5-4u^4-13u^3-u^2-6u-1 \\ -u^{10}-2u^9-4u^8-5u^7-7u^6-10u^5-10u^4-10u^3-7u^2-6u-3 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= 3u^{10}+13u^9+12u^8+29u^7+28u^6+45u^5+59u^4+24u^3+55u^2+6u+23$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{11} + 5y^{10} + \cdots - 9y - 1$
c_2	$y^{11} + y^{10} + \cdots + 11y - 1$
c_3	$y^{11} - 5y^{10} + \cdots - 8y - 1$
c_4, c_5, c_8	$y^{11} + 9y^{10} + \cdots - 8y - 1$
c_7, c_{10}	$y^{11} - 10y^{10} + \cdots + 8y - 1$
c_9	$y^{11} + 8y^{10} + \cdots + 5y - 1$
c_{11}	$y^{11} - 9y^{10} + \cdots + 7y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.299778 + 0.927842I$ $a = 0.63272 + 1.53718I$ $b = -1.147890 - 0.441102I$	$-4.88598 - 1.24077I$	$-7.95477 - 0.13168I$
$u = -0.299778 - 0.927842I$ $a = 0.63272 - 1.53718I$ $b = -1.147890 + 0.441102I$	$-4.88598 + 1.24077I$	$-7.95477 + 0.13168I$
$u = 0.363187 + 0.893448I$ $a = 0.626586 - 1.218740I$ $b = 0.332981 + 0.934382I$	$-7.76852 + 1.52130I$	$0.55594 - 5.61462I$
$u = 0.363187 - 0.893448I$ $a = 0.626586 + 1.218740I$ $b = 0.332981 - 0.934382I$	$-7.76852 - 1.52130I$	$0.55594 + 5.61462I$
$u = 0.735549 + 0.971108I$ $a = 0.249319 - 0.595629I$ $b = -1.286840 + 0.135867I$	$-5.46767 + 2.92476I$	$-5.12520 - 4.54367I$
$u = 0.735549 - 0.971108I$ $a = 0.249319 + 0.595629I$ $b = -1.286840 - 0.135867I$	$-5.46767 - 2.92476I$	$-5.12520 + 4.54367I$
$u = -1.27239$ $a = 0.381829$ $b = -0.0451978$	2.76650	23.9440
$u = -0.535222 + 1.201170I$ $a = -0.093193 + 0.766402I$ $b = -0.63928 - 1.45867I$	$-1.44280 - 5.48967I$	$2.58502 + 8.73904I$
$u = -0.535222 - 1.201170I$ $a = -0.093193 - 0.766402I$ $b = -0.63928 + 1.45867I$	$-1.44280 + 5.48967I$	$2.58502 - 8.73904I$
$u = -0.127541 + 0.574472I$ $a = 1.39365 + 0.29759I$ $b = 1.76363 + 0.62512I$	$1.73238 + 2.30988I$	$9.96723 - 2.64055I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.127541 - 0.574472I$ $a = 1.39365 - 0.29759I$ $b = 1.76363 - 0.62512I$	$1.73238 - 2.30988I$	$9.96723 + 2.64055I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{11}+u^{10}+3u^9+3u^8+5u^7+7u^6+5u^5+8u^4+3u^3+5u^2+u+1)$ $\cdot(u^{44}+8u^{42}+\cdots+28u+19)$
c_2	$(u^{11}+5u^{10}+\cdots-9u-1)(u^{44}+16u^{43}+\cdots+3928u+361)$
c_3	$(u^{11}-u^{10}-2u^9-u^8+2u^6+5u^5-2u^4+2u^3-4u^2-1)$ $\cdot(u^{44}+4u^{43}+\cdots+13u+1)$
c_4, c_5	$(u^{11}+u^{10}+5u^9+5u^8+9u^7+8u^6+7u^5+6u^4+2u^3+4u^2+1)$ $\cdot(u^{44}+2u^{43}+\cdots-11u-1)$
c_6	$(u^{11}-u^{10}+3u^9-3u^8+5u^7-7u^6+5u^5-8u^4+3u^3-5u^2+u-1)$ $\cdot(u^{44}+8u^{42}+\cdots+28u+19)$
c_7	$(u^{11}-2u^{10}-3u^9+8u^8-10u^6+7u^5+3u^4-6u^3+2u^2+2u-1)$ $\cdot(u^{44}+u^{43}+\cdots-41u+11)$
c_8	$(u^{11}-u^{10}+5u^9-5u^8+9u^7-8u^6+7u^5-6u^4+2u^3-4u^2-1)$ $\cdot(u^{44}+2u^{43}+\cdots-11u-1)$
c_9	$(u^{11}+4u^9+2u^8+2u^7+5u^6-2u^5+u^3-2u^2+u+1)$ $\cdot(u^{44}-u^{43}+\cdots-14u-1)$
c_{10}	$(u^{11}+2u^{10}-3u^9-8u^8+10u^6+7u^5-3u^4-6u^3-2u^2+2u+1)$ $\cdot(u^{44}+u^{43}+\cdots-41u+11)$
c_{11}	$(u^{11}-u^{10}-4u^9+6u^8+4u^7-12u^6+7u^5+6u^4-7u^3-u^2+3u-1)$ $\cdot(u^{44}+2u^{43}+\cdots+12u-1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$(y^{11}+5y^{10}+\cdots-9y-1)(y^{44}+16y^{43}+\cdots+3928y+361)$
c_2	$(y^{11}+y^{10}+\cdots+11y-1)(y^{44}+24y^{43}+\cdots-363932y+130321)$
c_3	$(y^{11}-5y^{10}+\cdots-8y-1)(y^{44}-42y^{43}+\cdots-5y+1)$
c_4, c_5, c_8	$(y^{11}+9y^{10}+\cdots-8y-1)(y^{44}+12y^{43}+\cdots-37y+1)$
c_7, c_{10}	$(y^{11}-10y^{10}+\cdots+8y-1)(y^{44}-15y^{43}+\cdots-2869y+121)$
c_9	$(y^{11}+8y^{10}+\cdots+5y-1)(y^{44}+7y^{43}+\cdots-54y+1)$
c_{11}	$(y^{11}-9y^{10}+\cdots+7y-1)(y^{44}-38y^{43}+\cdots-96y+1)$