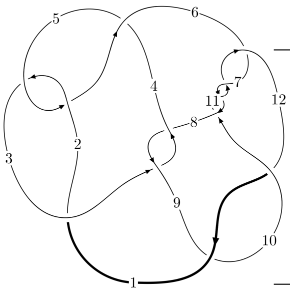
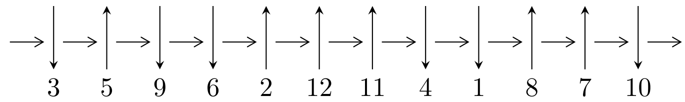
$12a_{0183}$ $(K12a_{0183})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -u^{67} - 2u^{66} + \cdots + 2b - 6u,\ -u^{67} - 3u^{66} + \cdots + 2a - 4,\ u^{68} + 3u^{67} + \cdots + 2u + 1\rangle$$
$$I_2^u = \langle -u^3a - u^3 - 3au + 2b - a - 3u - 1,\ u^3a + u^2a + u^3 + a^2 + 3au + 3a + 2u,\ u^4 + u^3 + 3u^2 + 2u + 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 76 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. $I_1^u = \langle -u^{67}-2u^{66}+\cdots+2b-6u,\ -u^{67}-3u^{66}+\cdots+2a-4,\ u^{68}+3u^{67}+\cdots+2u+1\rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_2 = \begin{pmatrix}\frac{1}{2}u^{67}+\frac{3}{2}u^{66}+\cdots-3u+2\\ \frac{1}{2}u^{67}+u^{66}+\cdots-5u^2+3u\end{pmatrix}$$
$$a_7 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_5 = \begin{pmatrix}u^{67}+\frac{5}{2}u^{66}+\cdots+6u+4\\ -\frac{1}{2}u^{67}-2u^{66}+\cdots+u-2\end{pmatrix}$$
$$a_3 = \begin{pmatrix}\frac{7}{2}u^{67}+\frac{17}{2}u^{66}+\cdots+11u+5\\ -\frac{3}{2}u^{67}-5u^{66}+\cdots-37u^2-3\end{pmatrix}$$
$$a_1 = \begin{pmatrix}-u^7-4u^5-4u^3\\ u^9+5u^7+7u^5+2u^3+u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}\frac{1}{2}u^{67}+\frac{1}{2}u^{66}+\cdots+7u+2\\ -\frac{1}{2}u^{67}-2u^{66}+\cdots+u-2\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-u\\u^3+u\end{pmatrix}$$
$$a_8 = \begin{pmatrix}u^2+1\\-u^4-2u^2\end{pmatrix}$$
$$a_9 = \begin{pmatrix}u^{11}+6u^9+12u^7+8u^5+u^3+2u\\ -u^{13}-7u^{11}-17u^9-16u^7-6u^5-5u^3-u\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}-u^3-2u\\u^5+3u^3+u\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{11}{2}u^{67}-14u^{66}+\cdots-29u-\frac{11}{2}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{68} + 21u^{67} + \cdots + 34u + 1$
c_2, c_5	$u^{68} + 5u^{67} + \cdots + 17u^2 + 1$
c_3, c_8	$u^{68} + u^{67} + \cdots + 640u + 256$
c_6, c_7, c_{10} c_{11}	$u^{68} + 3u^{67} + \cdots + 2u + 1$
c_9, c_{12}	$u^{68} - 11u^{67} + \cdots + 328u + 209$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{68} + 57y^{67} + \cdots + 2y + 1$
c_2, c_5	$y^{68} + 21y^{67} + \cdots + 34y + 1$
c_3, c_8	$y^{68} + 45y^{67} + \cdots + 606208y + 65536$
c_6, c_7, c_{10} c_{11}	$y^{68} + 75y^{67} + \cdots + 26y + 1$
c_9, c_{12}	$y^{68} + 51y^{67} + \cdots + 1645090y + 43681$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.302515 + 0.808830I$ $a = 1.38035 - 1.18783I$ $b = -0.748496 - 0.927452I$	$2.32422 + 5.97645I$	$0. - 7.23199I$
$u = 0.302515 - 0.808830I$ $a = 1.38035 + 1.18783I$ $b = -0.748496 + 0.927452I$	$2.32422 - 5.97645I$	$0. + 7.23199I$
$u = -0.624582 + 0.592516I$ $a = 2.73939 + 0.45090I$ $b = -0.782644 + 1.029050I$	$8.5059 - 11.6125I$	$0. + 8.82159I$
$u = -0.624582 - 0.592516I$ $a = 2.73939 - 0.45090I$ $b = -0.782644 - 1.029050I$	$8.5059 + 11.6125I$	$0. - 8.82159I$
$u = -0.631706 + 0.575663I$ $a = 0.66472 + 1.66346I$ $b = -0.898485 - 0.736878I$	$9.41750 - 5.39141I$	$4.69572 + 4.02325I$
$u = -0.631706 - 0.575663I$ $a = 0.66472 - 1.66346I$ $b = -0.898485 + 0.736878I$	$9.41750 + 5.39141I$	$4.69572 - 4.02325I$
$u = 0.346423 + 0.771113I$ $a = -0.173545 - 0.361476I$ $b = -0.764235 + 0.828111I$	$2.62914 + 0.24601I$	$0. - 1.73579I$
$u = 0.346423 - 0.771113I$ $a = -0.173545 + 0.361476I$ $b = -0.764235 - 0.828111I$	$2.62914 - 0.24601I$	$0. + 1.73579I$
$u = -0.573633 + 0.539020I$ $a = -1.74644 - 0.39374I$ $b = 0.275978 - 1.117340I$	$1.46789 - 5.68286I$	$0.68260 + 7.74797I$
$u = -0.573633 - 0.539020I$ $a = -1.74644 + 0.39374I$ $b = 0.275978 + 1.117340I$	$1.46789 + 5.68286I$	$0.68260 - 7.74797I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.598138 + 0.510537I$ $a = -2.96024 - 0.40706I$ $b = 0.768075 + 0.897553I$	$4.42265 + 4.95521I$	$3.07955 - 6.13595I$
$u = 0.598138 - 0.510537I$ $a = -2.96024 + 0.40706I$ $b = 0.768075 - 0.897553I$	$4.42265 - 4.95521I$	$3.07955 + 6.13595I$
$u = -0.663956 + 0.416976I$ $a = 1.98971 - 0.58484I$ $b = -0.894047 + 0.760345I$	$9.88771 + 1.02189I$	$5.85214 + 1.96232I$
$u = -0.663956 - 0.416976I$ $a = 1.98971 + 0.58484I$ $b = -0.894047 - 0.760345I$	$9.88771 - 1.02189I$	$5.85214 - 1.96232I$
$u = -0.607629 + 0.495214I$ $a = -1.199490 - 0.617485I$ $b = 0.803603 - 0.027754I$	$5.30813 - 2.06794I$	$6.26189 + 3.47855I$
$u = -0.607629 - 0.495214I$ $a = -1.199490 + 0.617485I$ $b = 0.803603 + 0.027754I$	$5.30813 + 2.06794I$	$6.26189 - 3.47855I$
$u = -0.664613 + 0.394825I$ $a = 1.54657 + 1.01878I$ $b = -0.792225 - 1.015100I$	$9.09143 + 7.26370I$	$4.68955 - 2.96843I$
$u = -0.664613 - 0.394825I$ $a = 1.54657 - 1.01878I$ $b = -0.792225 + 1.015100I$	$9.09143 - 7.26370I$	$4.68955 + 2.96843I$
$u = 0.601390 + 0.478255I$ $a = -1.47390 + 1.84744I$ $b = 0.774996 - 0.866635I$	$4.51797 - 0.86560I$	$3.52173 - 0.59232I$
$u = 0.601390 - 0.478255I$ $a = -1.47390 - 1.84744I$ $b = 0.774996 + 0.866635I$	$4.51797 + 0.86560I$	$3.52173 + 0.59232I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.468377 + 0.572220I$ $a = 1.90643 - 0.33431I$ $b = -0.122342 - 0.726340I$	$-0.59228 + 2.22769I$	$-3.37234 - 3.06639I$
$u = 0.468377 - 0.572220I$ $a = 1.90643 + 0.33431I$ $b = -0.122342 + 0.726340I$	$-0.59228 - 2.22769I$	$-3.37234 + 3.06639I$
$u = -0.576072 + 0.442170I$ $a = 0.006747 - 0.329071I$ $b = 0.319410 + 1.099330I$	$1.75394 + 1.73798I$	$2.20480 - 0.79061I$
$u = -0.576072 - 0.442170I$ $a = 0.006747 + 0.329071I$ $b = 0.319410 - 1.099330I$	$1.75394 - 1.73798I$	$2.20480 + 0.79061I$
$u = 0.092300 + 0.677316I$ $a = 0.27605 + 1.89597I$ $b = 0.128373 + 0.916246I$	$-2.81890 + 1.99447I$	$-8.57513 - 4.98912I$
$u = 0.092300 - 0.677316I$ $a = 0.27605 - 1.89597I$ $b = 0.128373 - 0.916246I$	$-2.81890 - 1.99447I$	$-8.57513 + 4.98912I$
$u = 0.587653 + 0.024788I$ $a = 1.71449 + 0.76043I$ $b = -0.778469 - 0.883411I$	$4.96906 + 2.93148I$	$6.24702 - 2.99694I$
$u = 0.587653 - 0.024788I$ $a = 1.71449 - 0.76043I$ $b = -0.778469 + 0.883411I$	$4.96906 - 2.93148I$	$6.24702 + 2.99694I$
$u = -0.18308 + 1.42922I$ $a = 0.843168 + 0.142200I$ $b = -0.806444 - 0.993390I$	$3.26662 + 4.24372I$	0
$u = -0.18308 - 1.42922I$ $a = 0.843168 - 0.142200I$ $b = -0.806444 + 0.993390I$	$3.26662 - 4.24372I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.19116+1.44793I$ $a=\ \ 1.213650+0.087479I$ $b=-0.888277+0.792353I$	$3.89634-2.02780I$	0
$u=-0.19116-1.44793I$ $a=\ \ 1.213650-0.087479I$ $b=-0.888277-0.792353I$	$3.89634+2.02780I$	0
$u=\ \ 0.394466+0.343618I$ $a=\ \ 0.574285-0.334716I$ $b=\ \ 0.015724+0.516322I$	$0.058562+0.963973I$	$0.65757-5.10087I$
$u=\ \ 0.394466-0.343618I$ $a=\ \ 0.574285+0.334716I$ $b=\ \ 0.015724-0.516322I$	$0.058562-0.963973I$	$0.65757+5.10087I$
$u=-0.143999+0.479957I$ $a=-2.56050-1.66131I$ $b=\ \ 0.567438-0.923967I$	$-0.46907-2.83971I$	$-5.96216+1.53375I$
$u=-0.143999-0.479957I$ $a=-2.56050+1.66131I$ $b=\ \ 0.567438+0.923967I$	$-0.46907+2.83971I$	$-5.96216-1.53375I$
$u=\ \ 0.00733+1.50712I$ $a=\ \ 0.012768-0.380965I$ $b=\ \ 0.636378+0.533093I$	$-5.97370+1.45056I$	0
$u=\ \ 0.00733-1.50712I$ $a=\ \ 0.012768+0.380965I$ $b=\ \ 0.636378-0.533093I$	$-5.97370-1.45056I$	0
$u=-0.14976+1.50240I$ $a=\ \ 0.124282+0.756614I$ $b=\ \ 0.375721+1.104200I$	$-4.62766-0.77309I$	0
$u=-0.14976-1.50240I$ $a=\ \ 0.124282-0.756614I$ $b=\ \ 0.375721-1.104200I$	$-4.62766+0.77309I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.17091 + 1.50831I$ $a = -0.738203 + 1.030050I$ $b = 0.789562 - 0.833836I$	$-2.00478 + 1.87390I$	0
$u = 0.17091 - 1.50831I$ $a = -0.738203 - 1.030050I$ $b = 0.789562 + 0.833836I$	$-2.00478 - 1.87390I$	0
$u = 0.299638 + 0.369423I$ $a = 0.473108 - 0.124443I$ $b = 0.122349 + 0.323173I$	$0.065320 + 0.982452I$	$1.03774 - 6.49318I$
$u = 0.299638 - 0.369423I$ $a = 0.473108 + 0.124443I$ $b = 0.122349 - 0.323173I$	$0.065320 - 0.982452I$	$1.03774 + 6.49318I$
$u = -0.17745 + 1.51476I$ $a = -0.500515 - 0.516152I$ $b = 0.814781 - 0.083742I$	$-1.30179 - 4.87223I$	0
$u = -0.17745 - 1.51476I$ $a = -0.500515 + 0.516152I$ $b = 0.814781 + 0.083742I$	$-1.30179 + 4.87223I$	0
$u = 0.08984 + 1.52674I$ $a = 0.591800 + 0.051249I$ $b = -0.313816 + 0.326902I$	$-6.47425 + 2.47932I$	0
$u = 0.08984 - 1.52674I$ $a = 0.591800 - 0.051249I$ $b = -0.313816 - 0.326902I$	$-6.47425 - 2.47932I$	0
$u = -0.02436 + 1.53342I$ $a = -1.32376 - 1.50760I$ $b = 0.589779 - 0.999381I$	$-7.31420 - 3.34180I$	0
$u = -0.02436 - 1.53342I$ $a = -1.32376 + 1.50760I$ $b = 0.589779 + 0.999381I$	$-7.31420 + 3.34180I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.17598 + 1.52392I$ $a = -2.15557 + 0.42536I$ $b = 0.765471 + 0.926847I$	$-2.29162 + 7.72916I$	0
$u = 0.17598 - 1.52392I$ $a = -2.15557 - 0.42536I$ $b = 0.765471 - 0.926847I$	$-2.29162 - 7.72916I$	0
$u = -0.17029 + 1.53953I$ $a = -1.21280 - 1.29053I$ $b = 0.245144 - 1.137840I$	$-5.43631 - 8.36637I$	0
$u = -0.17029 - 1.53953I$ $a = -1.21280 + 1.29053I$ $b = 0.245144 + 1.137840I$	$-5.43631 + 8.36637I$	0
$u = -0.19769 + 1.55029I$ $a = 0.060610 + 0.906239I$ $b = -0.901287 - 0.714793I$	$2.37596 - 8.42534I$	0
$u = -0.19769 - 1.55029I$ $a = 0.060610 - 0.906239I$ $b = -0.901287 + 0.714793I$	$2.37596 + 8.42534I$	0
$u = 0.13226 + 1.55786I$ $a = 1.43128 - 1.00095I$ $b = -0.168861 - 0.801656I$	$-7.75675 + 4.39339I$	0
$u = 0.13226 - 1.55786I$ $a = 1.43128 + 1.00095I$ $b = -0.168861 + 0.801656I$	$-7.75675 - 4.39339I$	0
$u = -0.19499 + 1.55859I$ $a = 1.91320 + 1.14117I$ $b = -0.773177 + 1.040270I$	$1.3625 - 14.6199I$	0
$u = -0.19499 - 1.55859I$ $a = 1.91320 - 1.14117I$ $b = -0.773177 - 1.040270I$	$1.3625 + 14.6199I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.02362 + 1.57367I$ $a = 0.27679 + 1.90830I$ $b = 0.061066 + 0.995702I$	$-10.44290 + 2.40599I$	0
$u = 0.02362 - 1.57367I$ $a = 0.27679 - 1.90830I$ $b = 0.061066 - 0.995702I$	$-10.44290 - 2.40599I$	0
$u = 0.08488 + 1.60162I$ $a = -0.205262 + 0.369099I$ $b = -0.719407 + 0.791988I$	$-5.42283 + 1.77686I$	0
$u = 0.08488 - 1.60162I$ $a = -0.205262 - 0.369099I$ $b = -0.719407 - 0.791988I$	$-5.42283 - 1.77686I$	0
$u = 0.06715 + 1.60931I$ $a = 0.72881 - 1.41338I$ $b = -0.709021 - 0.945322I$	$-5.89990 + 7.25511I$	0
$u = 0.06715 - 1.60931I$ $a = 0.72881 + 1.41338I$ $b = -0.709021 + 0.945322I$	$-5.89990 - 7.25511I$	0
$u = -0.167888 + 0.269376I$ $a = 0.78201 - 2.05483I$ $b = 0.507386 + 0.771126I$	$0.08583 + 1.52615I$	$-2.20733 - 5.34922I$
$u = -0.167888 - 0.269376I$ $a = 0.78201 + 2.05483I$ $b = 0.507386 - 0.771126I$	$0.08583 - 1.52615I$	$-2.20733 + 5.34922I$

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

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} a \\ \frac{1}{2}u^3a + \frac{1}{2}u^3 + \cdots + \frac{1}{2}a + \frac{1}{2} \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -\frac{1}{2}u^3a + \frac{1}{2}u^3 + \cdots + \frac{1}{2}a + \frac{5}{2} \\ \frac{1}{2}u^3a + \frac{1}{2}u^3 + \cdots + \frac{1}{2}a - \frac{1}{2} \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^3 + u^2 + a + 3u + 2 \\ \frac{1}{2}u^3a + \frac{1}{2}u^3 + \cdots + \frac{1}{2}a - \frac{1}{2} \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^3 + u^2 + a + 3u + 2 \\ \frac{1}{2}u^3a + \frac{1}{2}u^3 + \cdots + \frac{1}{2}a - \frac{1}{2} \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^2 + 1 \\ u^3 + u^2 + 2u + 1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^2 + 1 \\ u^3 + u^2 + 2u + 1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^3 - 2u \\ u^3 + u^2 + 2u + 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -2u^3a + 2u^3 - 5au + 4u^2 - 3a + 6u + 3$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4, c_5	$(u^2 - u + 1)^4$
c_2	$(u^2 + u + 1)^4$
c_3, c_8	u^8
c_6, c_7	$(u^4 + u^3 + 3u^2 + 2u + 1)^2$
c_9	$(u^4 + u^3 + u^2 + 1)^2$
c_{10}, c_{11}	$(u^4 - u^3 + 3u^2 - 2u + 1)^2$
c_{12}	$(u^4 - u^3 + u^2 + 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4 c_5	$(y^2+y+1)^4$
c_3, c_8	y^8
c_6, c_7, c_{10} c_{11}	$(y^4+5y^3+7y^2+2y+1)^2$
c_9, c_{12}	$(y^4+y^3+3y^2+2y+1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.395123+0.506844I$ $a=\ \ 0.084432-0.576081I$ $b=\ \ 0.500000+0.866025I$	$0.211005+0.614778I$	$-0.99907+2.29114I$
$u=-0.395123+0.506844I$ $a=-2.04112-0.65111I$ $b=\ \ 0.500000-0.866025I$	$0.21101-3.44499I$	$2.00436+8.24669I$
$u=-0.395123-0.506844I$ $a=\ \ 0.084432+0.576081I$ $b=\ \ 0.500000-0.866025I$	$0.211005-0.614778I$	$-0.99907-2.29114I$
$u=-0.395123-0.506844I$ $a=-2.04112+0.65111I$ $b=\ \ 0.500000+0.866025I$	$0.21101+3.44499I$	$2.00436-8.24669I$
$u=-0.10488+1.55249I$ $a=\ \ 0.033637+0.507913I$ $b=\ \ 0.500000+0.866025I$	$-6.79074-1.13408I$	$-5.65243-1.40826I$
$u=-0.10488+1.55249I$ $a=-1.07695-1.14911I$ $b=\ \ 0.500000-0.866025I$	$-6.79074-5.19385I$	$-1.85285+5.62657I$
$u=-0.10488-1.55249I$ $a=\ \ 0.033637-0.507913I$ $b=\ \ 0.500000-0.866025I$	$-6.79074+1.13408I$	$-5.65243+1.40826I$
$u=-0.10488-1.55249I$ $a=-1.07695+1.14911I$ $b=\ \ 0.500000+0.866025I$	$-6.79074+5.19385I$	$-1.85285-5.62657I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_4	$((u^2 - u + 1)^4)(u^{68} + 21u^{67} + \cdots + 34u + 1)$
c_2	$((u^2 + u + 1)^4)(u^{68} + 5u^{67} + \cdots + 17u^2 + 1)$
c_3, c_8	$u^8(u^{68} + u^{67} + \cdots + 640u + 256)$
c_5	$((u^2 - u + 1)^4)(u^{68} + 5u^{67} + \cdots + 17u^2 + 1)$
c_6, c_7	$((u^4 + u^3 + 3u^2 + 2u + 1)^2)(u^{68} + 3u^{67} + \cdots + 2u + 1)$
c_9	$((u^4 + u^3 + u^2 + 1)^2)(u^{68} - 11u^{67} + \cdots + 328u + 209)$
c_{10}, c_{11}	$((u^4 - u^3 + 3u^2 - 2u + 1)^2)(u^{68} + 3u^{67} + \cdots + 2u + 1)$
c_{12}	$((u^4 - u^3 + u^2 + 1)^2)(u^{68} - 11u^{67} + \cdots + 328u + 209)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$((y^2+y+1)^4)(y^{68}+57y^{67}+\cdots+2y+1)$
c_2, c_5	$((y^2+y+1)^4)(y^{68}+21y^{67}+\cdots+34y+1)$
c_3, c_8	$y^8(y^{68}+45y^{67}+\cdots+606208y+65536)$
c_6, c_7, c_{10} c_{11}	$((y^4+5y^3+7y^2+2y+1)^2)(y^{68}+75y^{67}+\cdots+26y+1)$
c_9, c_{12}	$((y^4+y^3+3y^2+2y+1)^2)(y^{68}+51y^{67}+\cdots+1645090y+43681)$