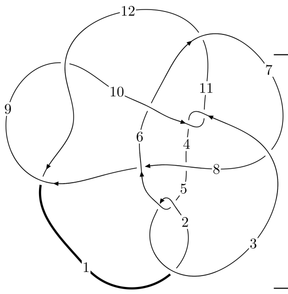
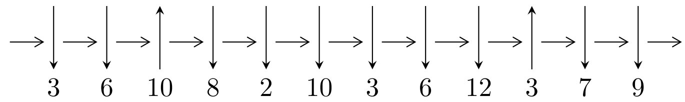
$12n_{0407}$ ($K12n_{0407}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & -7.91368 \times 10^{38} u^{28} + 9.57768 \times 10^{38} u^{27} + \cdots + 2.45804 \times 10^{41} b + 3.47957 \times 10^{40}, \\
& 2.07300 \times 10^{41} u^{28} - 1.33160 \times 10^{41} u^{27} + \cdots + 3.22003 \times 10^{43} a - 6.95309 \times 10^{43}, \\
& u^{29} - u^{28} + \cdots + 138u - 131 \rangle \\
I_2^u = \langle & 107u^{10} + 32u^9 + 296u^8 - 244u^7 + 366u^6 - 671u^5 + 173u^4 - 379u^3 + 801u^2 + 137b - 343u + 11, \\
& -65u^{10} - 22u^9 - 135u^8 + 202u^7 - 29u^6 + 487u^5 + 78u^4 + 115u^3 - 525u^2 + 137a + 56u + 138, \\
& u^{11} + 3u^9 - 3u^8 + 5u^7 - 8u^6 + 5u^5 - 6u^4 + 9u^3 - 7u^2 + 3u - 1 \rangle
\end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 40 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. $I_1^u = \langle -7.91\times 10^{38}u^{28} + 9.58\times 10^{38}u^{27} + \cdots + 2.46\times 10^{41}b + 3.48\times 10^{40},\ 2.07\times 10^{41}u^{28} - 1.33\times 10^{41}u^{27} + \cdots + 3.22\times 10^{43}a - 6.95\times 10^{43},\ u^{29} - u^{28} + \cdots + 138u - 131\rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix}1\\0\end{pmatrix}$$

$$a_{10} = \begin{pmatrix}0\\u\end{pmatrix}$$

$$a_4 = \begin{pmatrix}-0.00643783u^{28} + 0.00413537u^{27} + \cdots + 0.662423u + 2.15933\\ 0.00321951u^{28} - 0.00389647u^{27} + \cdots - 1.02149u - 0.141559\end{pmatrix}$$

$$a_7 = \begin{pmatrix}1\\u^2\end{pmatrix}$$

$$a_3 = \begin{pmatrix}-0.00643783u^{28} + 0.00413537u^{27} + \cdots + 0.662423u + 2.15933\\ 0.000740929u^{28} + 0.00319203u^{27} + \cdots - 1.54711u - 0.443182\end{pmatrix}$$

$$a_8 = \begin{pmatrix}-0.00128485u^{28} + 0.00710786u^{27} + \cdots - 1.02644u + 0.742688\\ 0.00237299u^{28} + 0.00288909u^{27} + \cdots + 0.812621u - 0.726496\end{pmatrix}$$

$$a_{11} = \begin{pmatrix}0.00280137u^{28} - 0.000100345u^{27} + \cdots + 5.91373u - 1.91339\\ -0.00280112u^{28} + 0.00521011u^{27} + \cdots + 0.914236u + 0.185519\end{pmatrix}$$

$$a_{12} = \begin{pmatrix}-0.00302164u^{28} + 0.00557538u^{27} + \cdots + 4.99373u - 1.74508\\ 0.00526331u^{28} - 0.00557686u^{27} + \cdots + 0.171748u + 0.166224\end{pmatrix}$$

$$a_2 = \begin{pmatrix}-0.00569690u^{28} + 0.00732739u^{27} + \cdots - 0.884682u + 1.71614\\ 0.000740929u^{28} + 0.00319203u^{27} + \cdots - 1.54711u - 0.443182\end{pmatrix}$$

$$a_1 = \begin{pmatrix}0.00343665u^{28} + 0.00333715u^{27} + \cdots - 4.10542u + 1.78332\\ 0.000428392u^{28} - 0.00831580u^{27} + \cdots - 1.31725u + 0.269050\end{pmatrix}$$

$$a_5 = \begin{pmatrix}-0.00619815u^{28} + 0.00185133u^{27} + \cdots + 1.94172u + 1.98378\\ -0.00478198u^{28} - 0.00236596u^{27} + \cdots - 1.38469u + 1.09344\end{pmatrix}$$

$$a_9 = \begin{pmatrix}-0.00365784u^{28} + 0.00421878u^{27} + \cdots - 1.83906u + 1.46918\\ 0.00237299u^{28} + 0.00288909u^{27} + \cdots + 0.812621u - 0.726496\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.0105084u^{28} + 0.00112769u^{27} + \cdots + 16.0288u - 8.53764$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{29} + 36u^{28} + \cdots + 31u + 1$
c_2, c_5	$u^{29} + 4u^{28} + \cdots - u + 1$
c_3, c_{10}	$u^{29} - 2u^{28} + \cdots + 8u + 1$
c_4	$u^{29} + 3u^{28} + \cdots + 365u + 41$
c_6	$u^{29} + u^{28} + \cdots + 138u + 131$
c_7	$u^{29} - u^{28} + \cdots + 19u + 1$
c_8	$u^{29} - 6u^{28} + \cdots - 2946u + 449$
c_9, c_{12}	$u^{29} - 3u^{28} + \cdots + 4u + 1$
c_{11}	$u^{29} - 2u^{28} + \cdots + 814u + 143$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{29} - 76y^{28} + \cdots - 661y - 1$
c_2, c_5	$y^{29} - 36y^{28} + \cdots + 31y - 1$
c_3, c_{10}	$y^{29} - 34y^{28} + \cdots - 44y - 1$
c_4	$y^{29} - 37y^{28} + \cdots + 56719y - 1681$
c_6	$y^{29} + 23y^{28} + \cdots - 189770y - 17161$
c_7	$y^{29} + 37y^{28} + \cdots + 65y - 1$
c_8	$y^{29} - 28y^{28} + \cdots + 5623920y - 201601$
c_9, c_{12}	$y^{29} + 13y^{28} + \cdots + 10y - 1$
c_{11}	$y^{29} + 22y^{28} + \cdots - 104456y - 20449$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.436375 + 0.850418I$ $a = 0.1286560 - 0.0002151I$ $b = 1.78815 - 0.23286I$	$-9.19094 + 2.43845I$	$-7.01904 + 1.26700I$
$u = 0.436375 - 0.850418I$ $a = 0.1286560 + 0.0002151I$ $b = 1.78815 + 0.23286I$	$-9.19094 - 2.43845I$	$-7.01904 - 1.26700I$
$u = 0.078457 + 1.066260I$ $a = -1.46433 - 0.41449I$ $b = -0.0909103 - 0.0528598I$	$-8.13051 - 4.19111I$	$-7.68221 + 3.19701I$
$u = 0.078457 - 1.066260I$ $a = -1.46433 + 0.41449I$ $b = -0.0909103 + 0.0528598I$	$-8.13051 + 4.19111I$	$-7.68221 - 3.19701I$
$u = -0.879989 + 0.721780I$ $a = 0.260919 + 0.251520I$ $b = 0.184603 + 0.338556I$	$2.12073 + 2.71911I$	$0.73382 - 5.26127I$
$u = -0.879989 - 0.721780I$ $a = 0.260919 - 0.251520I$ $b = 0.184603 - 0.338556I$	$2.12073 - 2.71911I$	$0.73382 + 5.26127I$
$u = 0.790394 + 0.245974I$ $a = 0.525024 - 0.126942I$ $b = -0.706490 + 0.199595I$	$-0.940187 + 0.023179I$	$-6.45467 + 0.13585I$
$u = 0.790394 - 0.245974I$ $a = 0.525024 + 0.126942I$ $b = -0.706490 - 0.199595I$	$-0.940187 - 0.023179I$	$-6.45467 - 0.13585I$
$u = -0.943061 + 0.720483I$ $a = -0.789406 - 0.515771I$ $b = -0.664638 - 0.961832I$	$-5.68896 + 1.78021I$	$-8.58741 - 3.28174I$
$u = -0.943061 - 0.720483I$ $a = -0.789406 + 0.515771I$ $b = -0.664638 + 0.961832I$	$-5.68896 - 1.78021I$	$-8.58741 + 3.28174I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.312879+1.192260I$ $a=-0.476660-1.226750I$ $b=\ \ 0.44318-1.83008I$	$8.78516+1.46029I$	$-3.70386-0.33063I$
$u=-0.312879-1.192260I$ $a=-0.476660+1.226750I$ $b=\ \ 0.44318+1.83008I$	$8.78516-1.46029I$	$-3.70386+0.33063I$
$u=-0.083431+1.234000I$ $a=\ \ 0.437799+0.932870I$ $b=-0.83465+1.40051I$	$3.89818+0.55243I$	$-6.20625-0.30214I$
$u=-0.083431-1.234000I$ $a=\ \ 0.437799-0.932870I$ $b=-0.83465-1.40051I$	$3.89818-0.55243I$	$-6.20625+0.30214I$
$u=\ \ 0.711939$ $a=\ \ 0.565805$ $b=-0.540254$	-0.970174	-8.63040
$u=-0.550508+1.211630I$ $a=\ \ 0.440780+1.225810I$ $b=-0.10690+1.85218I$	$5.97141+2.47634I$	$-8.54776-2.98261I$
$u=-0.550508-1.211630I$ $a=\ \ 0.440780-1.225810I$ $b=-0.10690-1.85218I$	$5.97141-2.47634I$	$-8.54776+2.98261I$
$u=-0.612611+1.267610I$ $a=-0.070611-1.272500I$ $b=\ \ 0.21455-1.57150I$	$-3.65066+4.20226I$	$-9.01127-2.33118I$
$u=-0.612611-1.267610I$ $a=-0.070611+1.272500I$ $b=\ \ 0.21455+1.57150I$	$-3.65066-4.20226I$	$-9.01127+2.33118I$
$u=-0.106413+0.4454170I$ $a=\ \ 2.15539-0.01946I$ $b=-0.057994-0.310123I$	$-0.73739-1.44881I$	$-4.73223+5.89766I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.106413 - 0.445417I$ $a = 2.15539 + 0.01946I$ $b = -0.057994 + 0.310123I$	$-0.73739 + 1.44881I$	$-4.73223 - 5.89766I$
$u = 1.49230 + 0.42245I$ $a = -0.772162 + 0.148645I$ $b = 0.356443 + 1.010820I$	$-4.96797 + 3.17574I$	$-8.51023 - 2.94389I$
$u = 1.49230 - 0.42245I$ $a = -0.772162 - 0.148645I$ $b = 0.356443 - 1.010820I$	$-4.96797 - 3.17574I$	$-8.51023 + 2.94389I$
$u = -0.35669 + 1.69215I$ $a = 0.107831 + 0.917859I$ $b = 0.15685 + 1.73182I$	$5.71858 + 1.14552I$	$-8.18527 - 0.09349I$
$u = -0.35669 - 1.69215I$ $a = 0.107831 - 0.917859I$ $b = 0.15685 - 1.73182I$	$5.71858 - 1.14552I$	$-8.18527 + 0.09349I$
$u = 0.81408 + 1.59165I$ $a = -0.213716 + 0.990636I$ $b = 0.46420 + 2.04047I$	$-1.05228 - 11.62150I$	$-7.61445 + 5.40349I$
$u = 0.81408 - 1.59165I$ $a = -0.213716 - 0.990636I$ $b = 0.46420 - 2.04047I$	$-1.05228 + 11.62150I$	$-7.61445 - 5.40349I$
$u = 0.37800 + 1.85458I$ $a = 0.073544 - 0.896135I$ $b = -0.37627 - 1.91342I$	$6.70498 - 5.94744I$	$-6.16397 + 5.31814I$
$u = 0.37800 - 1.85458I$ $a = 0.073544 + 0.896135I$ $b = -0.37627 + 1.91342I$	$6.70498 + 5.94744I$	$-6.16397 - 5.31814I$

II. $I_2^u = \langle 107u^{10} + 32u^9 + \cdots + 137b + 11,\ -65u^{10} - 22u^9 + \cdots + 137a + 138,\ u^{11} + 3u^9 + \cdots + 3u - 1\rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.474453u^{10} + 0.160584u^9 + \cdots - 0.408759u - 1.00730 \\ -0.781022u^{10} - 0.233577u^9 + \cdots + 2.50365u - 0.0802920 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.474453u^{10} + 0.160584u^9 + \cdots - 0.408759u - 1.00730 \\ -1.21898u^{10} - 0.766423u^9 + \cdots + 2.49635u + 0.0802920 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1.21898u^{10} + 0.766423u^9 + \cdots - 2.49635u - 0.0802920 \\ -0.781022u^{10} - 0.233577u^9 + \cdots + 2.50365u + 0.919708 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -1.01460u^{10} - 0.0510949u^9 + \cdots + 5.76642u - 0.861314 \\ 1.08759u^{10} + 0.306569u^9 + \cdots - 4.59854u + 1.16788 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -1.78102u^{10} - 0.233577u^9 + \cdots + 9.50365u - 2.08029 \\ 0.948905u^{10} + 0.321168u^9 + \cdots - 4.81752u + 0.985401 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.744526u^{10} - 0.605839u^9 + \cdots + 2.08759u - 0.927007 \\ -1.21898u^{10} - 0.766423u^9 + \cdots + 2.49635u + 0.0802920 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -2.08029u^{10} - 1.78102u^9 + \cdots + 0.715328u + 3.26277 \\ 1.16788u^{10} + 1.08759u^9 + \cdots - 0.313869u - 2.09489 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.693431u^{10} - 0.927007u^9 + \cdots - 0.0948905u + 1.08759 \\ 0.474453u^{10} + 0.160584u^9 + \cdots - 0.408759u - 2.00730 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 2u^{10} + u^9 + 6u^8 - 3u^7 + 7u^6 - 11u^5 + 2u^4 - 7u^3 + 12u^2 - 5u - 1 \\ -0.781022u^{10} - 0.233577u^9 + \cdots + 2.50365u + 0.919708 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= \frac{387}{137}u^{10} + \frac{190}{137}u^9 + \frac{1278}{137}u^8 - \frac{524}{137}u^7 + \frac{1882}{137}u^6 - \frac{2126}{137}u^5 + \frac{1207}{137}u^4 - \frac{2002}{137}u^3 + \frac{2504}{137}u^2 - \frac{1891}{137}u - \frac{1005}{137}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{11} - 13u^{10} + \cdots + 52u - 9$
c_2	$u^{11} + 3u^{10} + \cdots + 2u - 3$
c_3	$u^{11} + u^{10} - 5u^9 - 5u^8 + 5u^7 + 6u^6 + 4u^5 + u^4 + 3u^3 + 6u^2 - u + 1$
c_4	$u^{11} + 2u^{10} - u^9 + u^8 + 4u^7 - 7u^6 + 6u^5 + 4u^4 - 10u^3 + 12u^2 - 4u + 1$
c_5	$u^{11} - 3u^{10} + \cdots + 2u + 3$
c_6	$u^{11} + 3u^9 - 3u^8 + 5u^7 - 8u^6 + 5u^5 - 6u^4 + 9u^3 - 7u^2 + 3u - 1$
c_7	$u^{11} + 4u^9 - 2u^8 - 2u^7 - 6u^6 - 19u^5 - 2u^4 + 25u^3 + 23u^2 + 8u + 1$
c_8	$u^{11} + 5u^{10} + 8u^9 + 5u^8 + 3u^7 - u^5 - u^4 - 11u^3 + 2u^2 + 19u + 11$
c_9	$u^{11} - 2u^{10} + \cdots + u + 1$
c_{10}	$u^{11} - u^{10} - 5u^9 + 5u^8 + 5u^7 - 6u^6 + 4u^5 - u^4 + 3u^3 - 6u^2 - u - 1$
c_{11}	$u^{11} + u^{10} + 5u^9 + 4u^8 + 5u^7 + 8u^6 - 3u^5 + 14u^4 + 6u^3 + 2u^2 + 7u + 3$
c_{12}	$u^{11} + 2u^{10} + \cdots + u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{11} - 21y^{10} + \cdots - 572y - 81$
c_2, c_5	$y^{11} - 13y^{10} + \cdots + 52y - 9$
c_3, c_{10}	$y^{11} - 11y^{10} + \cdots - 11y - 1$
c_4	$y^{11} - 6y^{10} + \cdots - 8y - 1$
c_6	$y^{11} + 6y^{10} + \cdots - 5y - 1$
c_7	$y^{11} + 8y^{10} + \cdots + 18y - 1$
c_8	$y^{11} - 9y^{10} + \cdots + 317y - 121$
c_9, c_{12}	$y^{11} + 8y^{10} + \cdots + 7y - 1$
c_{11}	$y^{11} + 9y^{10} + \cdots + 37y - 9$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.911705$ $a = -1.38521$ $b = -0.393018$	-5.17789	-7.42590
$u = -0.773965 + 0.836171I$ $a = 0.181088 - 0.296407I$ $b = -0.517402 + 0.043467I$	$1.53593 + 2.51523I$	$-12.12476 - 1.29720I$
$u = -0.773965 - 0.836171I$ $a = 0.181088 + 0.296407I$ $b = -0.517402 - 0.043467I$	$1.53593 - 2.51523I$	$-12.12476 + 1.29720I$
$u = 0.686714 + 0.364294I$ $a = 0.919009 + 0.465058I$ $b = -0.604594 - 0.175211I$	$-1.53391 + 0.85947I$	$-12.42982 - 2.96274I$
$u = 0.686714 - 0.364294I$ $a = 0.919009 - 0.465058I$ $b = -0.604594 + 0.175211I$	$-1.53391 - 0.85947I$	$-12.42982 + 2.96274I$
$u = 0.25449 + 1.39655I$ $a = 0.057934 - 1.204510I$ $b = 0.36465 - 1.77060I$	$7.50546 - 0.80130I$	$-3.83965 + 0.29153I$
$u = 0.25449 - 1.39655I$ $a = 0.057934 + 1.204510I$ $b = 0.36465 + 1.77060I$	$7.50546 + 0.80130I$	$-3.83965 - 0.29153I$
$u = 0.143684 + 0.483044I$ $a = -1.91917 + 0.41809I$ $b = 1.362770 + 0.233285I$	$-9.90480 + 3.35709I$	$-12.00843 - 3.32581I$
$u = 0.143684 - 0.483044I$ $a = -1.91917 - 0.41809I$ $b = 1.362770 - 0.233285I$	$-9.90480 - 3.35709I$	$-12.00843 + 3.32581I$
$u = -0.76677 + 1.46423I$ $a = 0.453746 + 0.894119I$ $b = -0.40891 + 1.90938I$	$8.27614 + 3.20665I$	$-4.88437 - 3.50404I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.76677 - 1.46423I$ $a = \quad 0.453746 - 0.894119I$ $b = -0.40891 - 1.90938I$	$8.27614 - 3.20665I$	$-4.88437 + 3.50404I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{11} - 13u^{10} + \cdots + 52u - 9)(u^{29} + 36u^{28} + \cdots + 31u + 1)$
c_2	$(u^{11} + 3u^{10} + \cdots + 2u - 3)(u^{29} + 4u^{28} + \cdots - u + 1)$
c_3	$(u^{11} + u^{10} - 5u^9 - 5u^8 + 5u^7 + 6u^6 + 4u^5 + u^4 + 3u^3 + 6u^2 - u + 1)$ $\cdot (u^{29} - 2u^{28} + \cdots + 8u + 1)$
c_4	$(u^{11} + 2u^{10} - u^9 + u^8 + 4u^7 - 7u^6 + 6u^5 + 4u^4 - 10u^3 + 12u^2 - 4u + 1)$ $\cdot (u^{29} + 3u^{28} + \cdots + 365u + 41)$
c_5	$(u^{11} - 3u^{10} + \cdots + 2u + 3)(u^{29} + 4u^{28} + \cdots - u + 1)$
c_6	$(u^{11} + 3u^9 - 3u^8 + 5u^7 - 8u^6 + 5u^5 - 6u^4 + 9u^3 - 7u^2 + 3u - 1)$ $\cdot (u^{29} + u^{28} + \cdots + 138u + 131)$
c_7	$(u^{11} + 4u^9 - 2u^8 - 2u^7 - 6u^6 - 19u^5 - 2u^4 + 25u^3 + 23u^2 + 8u + 1)$ $\cdot (u^{29} - u^{28} + \cdots + 19u + 1)$
c_8	$(u^{11} + 5u^{10} + 8u^9 + 5u^8 + 3u^7 - u^5 - u^4 - 11u^3 + 2u^2 + 19u + 11)$ $\cdot (u^{29} - 6u^{28} + \cdots - 2946u + 449)$
c_9	$(u^{11} - 2u^{10} + \cdots + u + 1)(u^{29} - 3u^{28} + \cdots + 4u + 1)$
c_{10}	$(u^{11} - u^{10} - 5u^9 + 5u^8 + 5u^7 - 6u^6 + 4u^5 - u^4 + 3u^3 - 6u^2 - u - 1)$ $\cdot (u^{29} - 2u^{28} + \cdots + 8u + 1)$
c_{11}	$(u^{11} + u^{10} + 5u^9 + 4u^8 + 5u^7 + 8u^6 - 3u^5 + 14u^4 + 6u^3 + 2u^2 + 7u + 3)$ $\cdot (u^{29} - 2u^{28} + \cdots + 814u + 143)$
c_{12}	$(u^{11} + 2u^{10} + \cdots + u - 1)(u^{29} - 3u^{28} + \cdots + 4u + 1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{11}-21y^{10}+\cdots-572y-81)(y^{29}-76y^{28}+\cdots-661y-1)$
c_2, c_5	$(y^{11}-13y^{10}+\cdots+52y-9)(y^{29}-36y^{28}+\cdots+31y-1)$
c_3, c_{10}	$(y^{11}-11y^{10}+\cdots-11y-1)(y^{29}-34y^{28}+\cdots-44y-1)$
c_4	$(y^{11}-6y^{10}+\cdots-8y-1)(y^{29}-37y^{28}+\cdots+56719y-1681)$
c_6	$(y^{11}+6y^{10}+\cdots-5y-1)(y^{29}+23y^{28}+\cdots-189770y-17161)$
c_7	$(y^{11}+8y^{10}+\cdots+18y-1)(y^{29}+37y^{28}+\cdots+65y-1)$
c_8	$(y^{11}-9y^{10}+\cdots+317y-121)$ $\cdot(y^{29}-28y^{28}+\cdots+5623920y-201601)$
c_9, c_{12}	$(y^{11}+8y^{10}+\cdots+7y-1)(y^{29}+13y^{28}+\cdots+10y-1)$
c_{11}	$(y^{11}+9y^{10}+\cdots+37y-9)(y^{29}+22y^{28}+\cdots-104456y-20449)$