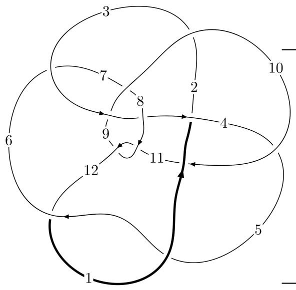
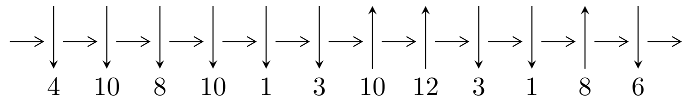
$12n_{0730}$ ($K12n_{0730}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 1.44280 \times 10^{94} u^{39} + 8.50468 \times 10^{94} u^{38} + \cdots + 1.31536 \times 10^{97} b - 5.65969 \times 10^{97},$$
$$- 7.99853 \times 10^{97} u^{39} - 1.12262 \times 10^{98} u^{38} + \cdots + 2.19271 \times 10^{100} a - 2.21181 \times 10^{101},$$
$$u^{40} + 3u^{39} + \cdots + 1016u - 1667\rangle$$
$$I_2^u = \langle -7910373u^{16} + 432236197u^{15} + \cdots + 1605075802b + 422623648,$$
$$996003064u^{16} - 1757434994u^{15} + \cdots + 1605075802a + 2036147287,\ u^{17} - 2u^{16} + \cdots - u^2 + 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 57 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. $\boldsymbol{I_1^u = \langle 1.44\times 10^{94}u^{39} + 8.50\times 10^{94}u^{38} + \cdots + 1.32\times 10^{97}b - 5.66\times 10^{97},\ -8.00\times 10^{97}u^{39} - 1.12\times 10^{98}u^{38} + \cdots + 2.19\times 10^{100}a - 2.21\times 10^{101},\ u^{40} + 3u^{39} + \cdots + 1016u - 1667\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0.00364778u^{39} + 0.00511977u^{38} + \cdots - 16.1044u + 10.0871 \\ -0.00109689u^{39} - 0.00646565u^{38} + \cdots + 1.45140u + 4.30276 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -0.00182775u^{39} + 0.0000852465u^{38} + \cdots + 7.45312u - 9.20414 \\ 0.00494909u^{39} + 0.0143198u^{38} + \cdots - 7.75640u + 2.00982 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0.000306195u^{39} + 0.0113462u^{38} + \cdots + 8.40116u - 16.4770 \\ 0.00369323u^{39} + 0.00540172u^{38} + \cdots - 9.13598u + 10.1100 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -0.0149546u^{39} - 0.0418621u^{38} + \cdots + 30.1162u - 7.15726 \\ 0.00556849u^{39} + 0.0195206u^{38} + \cdots - 7.34714u - 3.04686 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -0.00938611u^{39} - 0.0223414u^{38} + \cdots + 22.7690u - 10.2041 \\ 0.00556849u^{39} + 0.0195206u^{38} + \cdots - 7.34714u - 3.04686 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0.00482950u^{39} + 0.0248160u^{38} + \cdots + 0.583500u - 13.7252 \\ -0.00213394u^{39} - 0.0112609u^{38} + \cdots - 0.948044u + 7.27286 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0.00255090u^{39} - 0.00134588u^{38} + \cdots - 14.6530u + 14.3899 \\ -0.00109689u^{39} - 0.00646565u^{38} + \cdots + 1.45140u + 4.30276 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -0.00391056u^{39} - 0.0175058u^{38} + \cdots + 6.93355u + 8.56793 \\ -0.00163120u^{39} - 0.00313351u^{38} + \cdots + 5.54321u - 3.60264 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -0.00391056u^{39} - 0.0175058u^{38} + \cdots + 6.93355u + 8.56793 \\ 0.00128477u^{39} + 0.0119254u^{38} + \cdots + 4.89087u - 13.2282 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.0225460u^{39} + 0.0929089u^{38} + \cdots + 1.19705u - 39.3928$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{40} - 6u^{39} + \cdots - 585u + 81$
c_2, c_9	$u^{40} + u^{39} + \cdots - 1593u - 281$
c_3	$u^{40} - 3u^{39} + \cdots - 1016u - 1667$
c_4	$u^{40} - 2u^{39} + \cdots + 18u - 7$
c_5, c_{12}	$u^{40} + 2u^{39} + \cdots + 45u - 181$
c_6	$u^{40} + 23u^{38} + \cdots + 72246u - 10339$
c_7	$u^{40} - u^{39} + \cdots + 119u + 7$
c_8, c_{11}	$u^{40} - 4u^{39} + \cdots + 159u + 39$
c_{10}	$u^{40} - 3u^{39} + \cdots + 77u + 49$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{40} - 22y^{39} + \cdots - 215217y + 6561$
c_2, c_9	$y^{40} + 55y^{39} + \cdots + 1314861y + 78961$
c_3	$y^{40} + 35y^{39} + \cdots + 25863122y + 2778889$
c_4	$y^{40} - 38y^{39} + \cdots + 10176y + 49$
c_5, c_{12}	$y^{40} + 28y^{39} + \cdots + 424773y + 32761$
c_6	$y^{40} + 46y^{39} + \cdots - 3212684616y + 106894921$
c_7	$y^{40} - 55y^{39} + \cdots - 3745y + 49$
c_8, c_{11}	$y^{40} - 22y^{39} + \cdots - 88383y + 1521$
c_{10}	$y^{40} - 29y^{39} + \cdots - 130291y + 2401$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.074225 + 0.995798I$ $a = -1.48142 - 0.88202I$ $b = 0.069778 + 0.251836I$	$-1.68029 - 6.30373I$	$-1.75666 + 6.49211I$
$u = 0.074225 - 0.995798I$ $a = -1.48142 + 0.88202I$ $b = 0.069778 - 0.251836I$	$-1.68029 + 6.30373I$	$-1.75666 - 6.49211I$
$u = -0.019908 + 1.014730I$ $a = 0.933442 + 0.125283I$ $b = 0.321710 + 0.172172I$	$-2.72752 - 0.30261I$	$-4.74009 + 1.12705I$
$u = -0.019908 - 1.014730I$ $a = 0.933442 - 0.125283I$ $b = 0.321710 - 0.172172I$	$-2.72752 + 0.30261I$	$-4.74009 - 1.12705I$
$u = 0.090932 + 1.056100I$ $a = 0.69809 - 1.51032I$ $b = 0.39797 + 1.53949I$	$8.40378 + 2.27498I$	$-2.47436 - 4.06313I$
$u = 0.090932 - 1.056100I$ $a = 0.69809 + 1.51032I$ $b = 0.39797 - 1.53949I$	$8.40378 - 2.27498I$	$-2.47436 + 4.06313I$
$u = -0.384077 + 0.999119I$ $a = -0.75184 - 1.68276I$ $b = -0.06076 + 1.71893I$	$9.33802 - 0.43323I$	$-1.80383 - 1.69832I$
$u = -0.384077 - 0.999119I$ $a = -0.75184 + 1.68276I$ $b = -0.06076 - 1.71893I$	$9.33802 + 0.43323I$	$-1.80383 + 1.69832I$
$u = 0.744898 + 0.775177I$ $a = -0.209036 - 0.214334I$ $b = -1.145770 + 0.121712I$	$-4.62154 - 2.17421I$	$-9.73588 + 5.09039I$
$u = 0.744898 - 0.775177I$ $a = -0.209036 + 0.214334I$ $b = -1.145770 - 0.121712I$	$-4.62154 + 2.17421I$	$-9.73588 - 5.09039I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.969293 + 0.598574I$ $a = 0.875542 - 0.894161I$ $b = -0.124340 + 0.752925I$	$-0.244335 - 1.176990I$	$-6.16007 + 1.36199I$
$u = 0.969293 - 0.598574I$ $a = 0.875542 + 0.894161I$ $b = -0.124340 - 0.752925I$	$-0.244335 + 1.176990I$	$-6.16007 - 1.36199I$
$u = -1.103180 + 0.358015I$ $a = 0.751248 + 0.156995I$ $b = 0.530673 - 0.765497I$	$-1.66991 + 2.90598I$	$-0.37953 - 2.28494I$
$u = -1.103180 - 0.358015I$ $a = 0.751248 - 0.156995I$ $b = 0.530673 + 0.765497I$	$-1.66991 - 2.90598I$	$-0.37953 + 2.28494I$
$u = -0.898417 + 0.778153I$ $a = 0.096570 - 0.403680I$ $b = -0.535046 - 0.126132I$	$4.45088 + 3.00898I$	$-9.22623 + 0.17791I$
$u = -0.898417 - 0.778153I$ $a = 0.096570 + 0.403680I$ $b = -0.535046 + 0.126132I$	$4.45088 - 3.00898I$	$-9.22623 - 0.17791I$
$u = 0.530454 + 1.115730I$ $a = -0.109870 + 0.125763I$ $b = 1.69402 - 0.58477I$	$-1.60625 + 4.02862I$	$-2.67808 - 1.97162I$
$u = 0.530454 - 1.115730I$ $a = -0.109870 - 0.125763I$ $b = 1.69402 + 0.58477I$	$-1.60625 - 4.02862I$	$-2.67808 + 1.97162I$
$u = 0.946367 + 0.805651I$ $a = -0.594098 + 0.206972I$ $b = 0.866066 - 0.936600I$	$0.05822 - 3.02351I$	$-2.19172 + 2.97004I$
$u = 0.946367 - 0.805651I$ $a = -0.594098 - 0.206972I$ $b = 0.866066 + 0.936600I$	$0.05822 + 3.02351I$	$-2.19172 - 2.97004I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.547294 + 1.146790I$ $a = 0.07437 - 1.44792I$ $b = 0.351725 + 1.262160I$	$1.36525 - 2.63988I$	$0.758920 - 0.234307I$
$u = 0.547294 - 1.146790I$ $a = 0.07437 + 1.44792I$ $b = 0.351725 - 1.262160I$	$1.36525 + 2.63988I$	$0.758920 + 0.234307I$
$u = 0.110521 + 1.325330I$ $a = -0.210888 + 1.057420I$ $b = -0.82951 - 1.82120I$	$9.68403 - 3.29803I$	$-1.76650 + 2.63916I$
$u = 0.110521 - 1.325330I$ $a = -0.210888 - 1.057420I$ $b = -0.82951 + 1.82120I$	$9.68403 + 3.29803I$	$-1.76650 - 2.63916I$
$u = -0.400029 + 1.319180I$ $a = 0.302273 + 1.229320I$ $b = 0.25236 - 2.15666I$	$10.73370 + 3.93558I$	$-1.98176 - 4.05917I$
$u = -0.400029 - 1.319180I$ $a = 0.302273 - 1.229320I$ $b = 0.25236 + 2.15666I$	$10.73370 - 3.93558I$	$-1.98176 + 4.05917I$
$u = 0.499216$ $a = -0.294586$ $b = 0.384818$	-0.791835	-13.1510
$u = 0.60667 + 1.39679I$ $a = -0.177788 + 1.087880I$ $b = 0.08306 - 1.87544I$	$2.61258 - 4.98918I$	0
$u = 0.60667 - 1.39679I$ $a = -0.177788 - 1.087880I$ $b = 0.08306 + 1.87544I$	$2.61258 + 4.98918I$	0
$u = 0.057521 + 0.459196I$ $a = -1.04344 - 1.83286I$ $b = -0.049531 + 0.594009I$	$1.36870 - 1.27202I$	$0.60073 + 4.17984I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.057521 - 0.459196I$ $a = -1.04344 + 1.83286I$ $b = -0.049531 - 0.594009I$	$1.36870 + 1.27202I$	$0.60073 - 4.17984I$
$u = -0.451499$ $a = 1.24714$ $b = -1.34904$	-7.99269	-41.4500
$u = -1.71262 + 0.03239I$ $a = -0.625667 - 0.062971I$ $b = -0.701464 + 1.129030I$	$2.55596 - 3.89352I$	0
$u = -1.71262 - 0.03239I$ $a = -0.625667 + 0.062971I$ $b = -0.701464 - 1.129030I$	$2.55596 + 3.89352I$	0
$u = -0.93976 + 1.68582I$ $a = 0.302089 + 0.934011I$ $b = 0.52563 - 2.12471I$	$7.2434 + 13.4515I$	0
$u = -0.93976 - 1.68582I$ $a = 0.302089 - 0.934011I$ $b = 0.52563 + 2.12471I$	$7.2434 - 13.4515I$	0
$u = -0.75189 + 1.95033I$ $a = -0.179356 - 0.815834I$ $b = -0.24537 + 2.12821I$	$4.31816 + 4.85736I$	0
$u = -0.75189 - 1.95033I$ $a = -0.179356 + 0.815834I$ $b = -0.24537 - 2.12821I$	$4.31816 - 4.85736I$	0
$u = 0.00784 + 2.54288I$ $a = -0.024216 + 0.721328I$ $b = -0.41910 - 2.14226I$	$13.20450 - 2.73784I$	0
$u = 0.00784 - 2.54288I$ $a = -0.024216 - 0.721328I$ $b = -0.41910 + 2.14226I$	$13.20450 + 2.73784I$	0

II.

$\boldsymbol{I_2^u = \langle -7.91\times 10^6 u^{16} + 4.32\times 10^8 u^{15} + \cdots + 1.61\times 10^9 b + 4.23\times 10^8,\ 9.96\times 10^8 u^{16} - 1.76\times 10^9 u^{15} + \cdots + 1.61\times 10^9 a + 2.04\times 10^9,\ u^{17} - 2u^{16} + \cdots - u^2 + 1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.620533u^{16} + 1.09492u^{15} + \cdots - 0.305972u - 1.26857 \\ 0.00492835u^{16} - 0.269293u^{15} + \cdots - 1.22753u - 0.263304 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.151781u^{16} + 0.152336u^{15} + \cdots - 4.08959u + 0.621432 \\ -0.149622u^{16} + 0.0695177u^{15} + \cdots + 1.46667u - 1.24998 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.498942u^{16} + 0.618046u^{15} + \cdots - 2.77470u - 0.779776 \\ -0.274767u^{16} + 0.350118u^{15} + \cdots + 1.81383u - 1.02137 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.537305u^{16} + 1.17062u^{15} + \cdots - 0.571419u + 2.57166 \\ -0.151225u^{16} + 0.499990u^{15} + \cdots + 0.621432u + 0.151781 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.688530u^{16} + 1.67061u^{15} + \cdots + 0.0500138u + 2.72344 \\ -0.151225u^{16} + 0.499990u^{15} + \cdots + 0.621432u + 0.151781 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.247793u^{16} - 0.451462u^{15} + \cdots + 6.66125u + 1.91587 \\ 0.347162u^{16} - 0.465710u^{15} + \cdots - 1.31489u + 1.40121 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.615605u^{16} + 0.825630u^{15} + \cdots - 1.53350u - 1.53187 \\ 0.00492835u^{16} - 0.269293u^{15} + \cdots - 1.22753u - 0.263304 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.606095u^{16} - 1.10067u^{15} + \cdots + 2.24416u + 1.10418 \\ -0.0253392u^{16} + 0.352876u^{15} + \cdots + 3.62140u - 1.08505 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.606095u^{16} - 1.10067u^{15} + \cdots + 2.24416u + 1.10418 \\ -0.171636u^{16} + 0.583572u^{15} + \cdots + 3.01530u - 1.19657 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{7112656685}{1605075802}u^{16} - \frac{7923058150}{802537901}u^{15} + \cdots - \frac{29249964323}{1605075802}u - \frac{13984566}{802537901}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{17}-7u^{16}+\cdots+33u-11$
c_2	$u^{17}+6u^{15}+\cdots-9u-1$
c_3	$u^{17}-2u^{16}+\cdots-u^2+1$
c_4	$u^{17}+u^{16}+\cdots+84u-19$
c_5	$u^{17}-u^{16}+\cdots+u-1$
c_6	$u^{17}+u^{16}+\cdots-14u-1$
c_7	$u^{17}+6u^{16}+\cdots+45u+11$
c_8	$u^{17}-3u^{16}+\cdots+u-1$
c_9	$u^{17}+6u^{15}+\cdots-9u+1$
c_{10}	$u^{17}-4u^{16}+\cdots-5u-1$
c_{11}	$u^{17}+3u^{16}+\cdots+u+1$
c_{12}	$u^{17}+u^{16}+\cdots+u+1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{17} - 13y^{16} + \cdots + 561y - 121$
c_2, c_9	$y^{17} + 12y^{16} + \cdots + 19y - 1$
c_3	$y^{17} + 12y^{16} + \cdots + 2y - 1$
c_4	$y^{17} - 13y^{16} + \cdots + 3104y - 361$
c_5, c_{12}	$y^{17} + 9y^{16} + \cdots + 11y - 1$
c_6	$y^{17} + 11y^{16} + \cdots + 72y - 1$
c_7	$y^{17} - 22y^{16} + \cdots + 1321y - 121$
c_8, c_{11}	$y^{17} - 9y^{16} + \cdots + 7y - 1$
c_{10}	$y^{17} - 12y^{16} + \cdots + 11y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.020499 + 0.998308I$ $a = 0.37175 - 1.89988I$ $b = 0.18081 + 1.72832I$	$9.62563 + 1.51829I$	$1.39343 - 3.45515I$
$u = 0.020499 - 0.998308I$ $a = 0.37175 + 1.89988I$ $b = 0.18081 - 1.72832I$	$9.62563 - 1.51829I$	$1.39343 + 3.45515I$
$u = -0.380557 + 0.938672I$ $a = 0.739410 + 0.323312I$ $b = 1.246230 - 0.332058I$	$-4.22062 + 1.12566I$	$-5.94166 + 0.72076I$
$u = -0.380557 - 0.938672I$ $a = 0.739410 - 0.323312I$ $b = 1.246230 + 0.332058I$	$-4.22062 - 1.12566I$	$-5.94166 - 0.72076I$
$u = -0.995936 + 0.621165I$ $a = -0.280702 - 0.424421I$ $b = -0.353305 - 0.553264I$	$5.01697 + 3.35175I$	$1.60696 - 5.55747I$
$u = -0.995936 - 0.621165I$ $a = -0.280702 + 0.424421I$ $b = -0.353305 + 0.553264I$	$5.01697 - 3.35175I$	$1.60696 + 5.55747I$
$u = 1.178520 + 0.479735I$ $a = -0.655660 + 0.253208I$ $b = -0.090891 - 0.717128I$	$-2.58072 - 3.16432I$	$-9.05012 + 4.68936I$
$u = 1.178520 - 0.479735I$ $a = -0.655660 - 0.253208I$ $b = -0.090891 + 0.717128I$	$-2.58072 + 3.16432I$	$-9.05012 - 4.68936I$
$u = 0.692730 + 0.052899I$ $a = 1.72978 + 0.41261I$ $b = -0.232122 - 0.090819I$	$0.745228 + 0.220813I$	$-1.69301 + 1.79583I$
$u = 0.692730 - 0.052899I$ $a = 1.72978 - 0.41261I$ $b = -0.232122 + 0.090819I$	$0.745228 - 0.220813I$	$-1.69301 - 1.79583I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.531547+1.299730I$ $a = 0.013837-1.218520I$ $b = 0.113827+1.336070I$	$0.72305-3.21935I$	$-6.16546+5.06885I$
$u = 0.531547-1.299730I$ $a = 0.013837+1.218520I$ $b = 0.113827-1.336070I$	$0.72305+3.21935I$	$-6.16546-5.06885I$
$u = 0.016024+0.519282I$ $a = -1.90689-1.51776I$ $b = -1.092870+0.142474I$	$-2.88743-5.63292I$	$-6.98267+4.20336I$
$u = 0.016024-0.519282I$ $a = -1.90689+1.51776I$ $b = -1.092870-0.142474I$	$-2.88743+5.63292I$	$-6.98267-4.20336I$
$u = -0.346914$ $a = -1.87486$ $b = 1.39658$	-7.87029	24.2710
$u = 0.11063+2.21488I$ $a = -0.074096+0.817459I$ $b = -0.46997-2.10827I$	$13.9624-2.5342I$	$2.69679+0.52341I$
$u = 0.11063-2.21488I$ $a = -0.074096-0.817459I$ $b = -0.46997+2.10827I$	$13.9624+2.5342I$	$2.69679-0.52341I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{17} - 7u^{16} + \cdots + 33u - 11)(u^{40} - 6u^{39} + \cdots - 585u + 81)$
c_2	$(u^{17} + 6u^{15} + \cdots - 9u - 1)(u^{40} + u^{39} + \cdots - 1593u - 281)$
c_3	$(u^{17} - 2u^{16} + \cdots - u^2 + 1)(u^{40} - 3u^{39} + \cdots - 1016u - 1667)$
c_4	$(u^{17} + u^{16} + \cdots + 84u - 19)(u^{40} - 2u^{39} + \cdots + 18u - 7)$
c_5	$(u^{17} - u^{16} + \cdots + u - 1)(u^{40} + 2u^{39} + \cdots + 45u - 181)$
c_6	$(u^{17} + u^{16} + \cdots - 14u - 1)(u^{40} + 23u^{38} + \cdots + 72246u - 10339)$
c_7	$(u^{17} + 6u^{16} + \cdots + 45u + 11)(u^{40} - u^{39} + \cdots + 119u + 7)$
c_8	$(u^{17} - 3u^{16} + \cdots + u - 1)(u^{40} - 4u^{39} + \cdots + 159u + 39)$
c_9	$(u^{17} + 6u^{15} + \cdots - 9u + 1)(u^{40} + u^{39} + \cdots - 1593u - 281)$
c_{10}	$(u^{17} - 4u^{16} + \cdots - 5u - 1)(u^{40} - 3u^{39} + \cdots + 77u + 49)$
c_{11}	$(u^{17} + 3u^{16} + \cdots + u + 1)(u^{40} - 4u^{39} + \cdots + 159u + 39)$
c_{12}	$(u^{17} + u^{16} + \cdots + u + 1)(u^{40} + 2u^{39} + \cdots + 45u - 181)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{17} - 13y^{16} + \cdots + 561y - 121)$ $\cdot (y^{40} - 22y^{39} + \cdots - 215217y + 6561)$
c_2, c_9	$(y^{17} + 12y^{16} + \cdots + 19y - 1)(y^{40} + 55y^{39} + \cdots + 1314861y + 78961)$
c_3	$(y^{17} + 12y^{16} + \cdots + 2y - 1)$ $\cdot (y^{40} + 35y^{39} + \cdots + 25863122y + 2778889)$
c_4	$(y^{17} - 13y^{16} + \cdots + 3104y - 361)(y^{40} - 38y^{39} + \cdots + 10176y + 49)$
c_5, c_{12}	$(y^{17} + 9y^{16} + \cdots + 11y - 1)(y^{40} + 28y^{39} + \cdots + 424773y + 32761)$
c_6	$(y^{17} + 11y^{16} + \cdots + 72y - 1)$ $\cdot (y^{40} + 46y^{39} + \cdots - 3212684616y + 106894921)$
c_7	$(y^{17} - 22y^{16} + \cdots + 1321y - 121)(y^{40} - 55y^{39} + \cdots - 3745y + 49)$
c_8, c_{11}	$(y^{17} - 9y^{16} + \cdots + 7y - 1)(y^{40} - 22y^{39} + \cdots - 88383y + 1521)$
c_{10}	$(y^{17} - 12y^{16} + \cdots + 11y - 1)(y^{40} - 29y^{39} + \cdots - 130291y + 2401)$