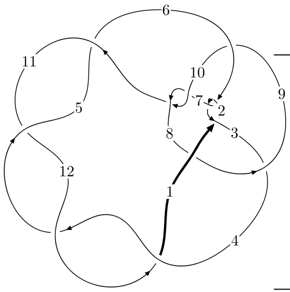
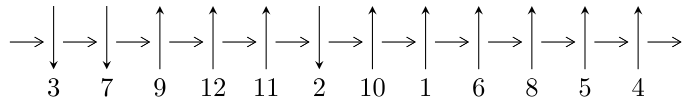
$12a_{0613}$ ($K12a_{0613}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -2.03882 \times 10^{79} u^{78} + 2.23239 \times 10^{79} u^{77} + \cdots + 2.55472 \times 10^{80} b - 1.96227 \times 10^{79},$$
$$- 8.18368 \times 10^{80} u^{78} + 6.97572 \times 10^{80} u^{77} + \cdots + 1.02189 \times 10^{81} a - 2.19255 \times 10^{81},\ u^{79} - 2u^{78} + \cdots - u^2 +$$
$$I_2^u = \langle b,\ 2a - 1,\ u^2 - u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 81 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.

$\boldsymbol{I_1^u = \langle -2.04\times 10^{79}u^{78}+2.23\times 10^{79}u^{77}+\cdots+2.55\times 10^{80}b-1.96\times 10^{79},\ -8.18\times 10^{80}u^{78}+6.98\times 10^{80}u^{77}+\cdots+1.02\times 10^{81}a-2.19\times 10^{81},\ u^{79}-2u^{78}+\cdots-u^2+1\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_5 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_1 = \begin{pmatrix}u\\u\end{pmatrix}$$
$$a_9 = \begin{pmatrix}0.800839u^{78} - 0.682630u^{77} + \cdots + 3.30143u + 2.14559\\0.0798060u^{78} - 0.0873829u^{77} + \cdots + 1.62926u + 0.0768097\end{pmatrix}$$
$$a_3 = \begin{pmatrix}0.00402796u^{78} - 0.254054u^{77} + \cdots - 0.699999u - 0.768387\\0.181867u^{78} - 0.302615u^{77} + \cdots - 0.399516u - 0.657378\end{pmatrix}$$
$$a_2 = \begin{pmatrix}0.867844u^{78} - 1.44502u^{77} + \cdots - 1.58649u - 0.804996\\0.630533u^{78} - 0.911235u^{77} + \cdots + 1.37596u - 0.234189\end{pmatrix}$$
$$a_8 = \begin{pmatrix}0.747578u^{78} - 1.04412u^{77} + \cdots + 2.58040u + 1.29877\\0.0265456u^{78} - 0.448872u^{77} + \cdots + 0.908223u - 0.770009\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-u\\u^3+u\end{pmatrix}$$
$$a_6 = \begin{pmatrix}u^2+1\\-u^4-2u^2\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}0.885426u^{78} - 1.25091u^{77} + \cdots + 3.14176u + 1.13115\\0.101593u^{78} - 0.552926u^{77} + \cdots + 1.81848u - 0.679272\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-0.411380u^{78} + 0.671759u^{77} + \cdots - 1.60537u + 0.403544\\-0.193891u^{78} + 0.272615u^{77} + \cdots - 1.17977u - 0.155029\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -1.00132u^{78} - 2.47157u^{77} + \cdots - 17.5561u - 2.90148$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{79} + 28u^{78} + \cdots + 2u + 1$
c_2, c_6	$u^{79} - 2u^{78} + \cdots + 4u - 1$
c_3	$u^{79} - u^{78} + \cdots + 224u - 64$
c_4, c_5, c_{11} c_{12}	$u^{79} + 2u^{78} + \cdots + u^2 - 1$
c_7, c_{10}	$u^{79} + 3u^{78} + \cdots + 8u - 16$
c_8	$4(4u^{79} + 62u^{78} + \cdots - 19u - 983)$
c_9	$4(4u^{79} + 70u^{78} + \cdots + 5805u - 1399)$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{79}+40y^{78}+\cdots-82y-1$
c_2, c_6	$y^{79}-28y^{78}+\cdots+2y-1$
c_3	$y^{79}+15y^{78}+\cdots-1536y-4096$
c_4, c_5, c_{11} c_{12}	$y^{79}+92y^{78}+\cdots+2y-1$
c_7, c_{10}	$y^{79}-47y^{78}+\cdots+10272y-256$
c_8	$16(16y^{79}+916y^{78}+\cdots-1527221y-966289)$
c_9	$16(16y^{79}-828y^{78}+\cdots+2.53292\times 10^{7}y-1957201)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.562843 + 0.832702I$ $a = -0.56281 + 1.45509I$ $b = 0.98702 + 1.13654I$	$1.52292 + 13.66740I$	0
$u = 0.562843 - 0.832702I$ $a = -0.56281 - 1.45509I$ $b = 0.98702 - 1.13654I$	$1.52292 - 13.66740I$	0
$u = -0.741395 + 0.678986I$ $a = 0.310828 + 0.208855I$ $b = -0.225354 + 0.507570I$	$1.56279 - 2.63526I$	0
$u = -0.741395 - 0.678986I$ $a = 0.310828 - 0.208855I$ $b = -0.225354 - 0.507570I$	$1.56279 + 2.63526I$	0
$u = -0.579273 + 0.830831I$ $a = 0.417162 + 1.259300I$ $b = -0.933225 + 0.954782I$	$3.15768 - 7.68910I$	0
$u = -0.579273 - 0.830831I$ $a = 0.417162 - 1.259300I$ $b = -0.933225 - 0.954782I$	$3.15768 + 7.68910I$	0
$u = 0.568605 + 0.766638I$ $a = -0.846313 + 0.755150I$ $b = 0.443486 + 1.011560I$	$-3.94285 + 6.03723I$	0
$u = 0.568605 - 0.766638I$ $a = -0.846313 - 0.755150I$ $b = 0.443486 - 1.011560I$	$-3.94285 - 6.03723I$	0
$u = 0.338960 + 0.869847I$ $a = 0.612024 - 1.143240I$ $b = -0.336341 - 1.122390I$	$-5.58907 + 1.26010I$	0
$u = 0.338960 - 0.869847I$ $a = 0.612024 + 1.143240I$ $b = -0.336341 + 1.122390I$	$-5.58907 - 1.26010I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.370841 + 0.777492I$ $a = 0.33367 - 1.64645I$ $b = -1.06752 - 1.25567I$	$-2.35487 + 7.66759I$	0
$u = 0.370841 - 0.777492I$ $a = 0.33367 + 1.64645I$ $b = -1.06752 + 1.25567I$	$-2.35487 - 7.66759I$	0
$u = 0.501863 + 1.023240I$ $a = 0.790922 - 0.128653I$ $b = 0.562719 - 0.703503I$	$0.48015 - 4.91507I$	0
$u = 0.501863 - 1.023240I$ $a = 0.790922 + 0.128653I$ $b = 0.562719 + 0.703503I$	$0.48015 + 4.91507I$	0
$u = -0.331748 + 0.759592I$ $a = -0.17186 - 1.41166I$ $b = 1.020660 - 0.871256I$	$-0.93419 - 2.69523I$	0
$u = -0.331748 - 0.759592I$ $a = -0.17186 + 1.41166I$ $b = 1.020660 + 0.871256I$	$-0.93419 + 2.69523I$	0
$u = -0.801592 + 0.090466I$ $a = -0.152170 - 0.181666I$ $b = 0.785054 + 0.668987I$	$5.40107 + 3.12470I$	$10.83520 - 3.71526I$
$u = -0.801592 - 0.090466I$ $a = -0.152170 + 0.181666I$ $b = 0.785054 - 0.668987I$	$5.40107 - 3.12470I$	$10.83520 + 3.71526I$
$u = 0.771291 + 0.077638I$ $a = 0.207850 - 0.230451I$ $b = -0.869715 + 0.901562I$	$3.80470 - 9.23717I$	$8.33412 + 6.93035I$
$u = 0.771291 - 0.077638I$ $a = 0.207850 + 0.230451I$ $b = -0.869715 - 0.901562I$	$3.80470 + 9.23717I$	$8.33412 - 6.93035I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.553421+1.128580I$ $a=-0.458687-0.080550I$ $b=-0.373011-0.438940I$	$1.82683-1.50251I$	0
$u=-0.553421-1.128580I$ $a=-0.458687+0.080550I$ $b=-0.373011+0.438940I$	$1.82683+1.50251I$	0
$u=-0.231967+0.666632I$ $a=-0.366445-0.960576I$ $b=0.783116-0.050253I$	$-0.79258-1.89815I$	$1.36018+5.78831I$
$u=-0.231967-0.666632I$ $a=-0.366445+0.960576I$ $b=0.783116+0.050253I$	$-0.79258+1.89815I$	$1.36018-5.78831I$
$u=-0.182894+0.674305I$ $a=-0.009457-1.377310I$ $b=0.480502-0.004250I$	$-0.67916-1.82123I$	$2.42742+5.42469I$
$u=-0.182894-0.674305I$ $a=-0.009457+1.377310I$ $b=0.480502+0.004250I$	$-0.67916+1.82123I$	$2.42742-5.42469I$
$u=0.391868+0.577092I$ $a=-0.872126-0.595448I$ $b=-0.209144+0.629764I$	$-1.69314-1.96298I$	$-0.140339-0.849160I$
$u=0.391868-0.577092I$ $a=-0.872126+0.595448I$ $b=-0.209144-0.629764I$	$-1.69314+1.96298I$	$-0.140339+0.849160I$
$u=0.654803+0.208319I$ $a=-0.109482-0.416917I$ $b=-0.076780+0.829628I$	$-2.27524-1.80401I$	$0.55826+3.15083I$
$u=0.654803-0.208319I$ $a=-0.109482+0.416917I$ $b=-0.076780-0.829628I$	$-2.27524+1.80401I$	$0.55826-3.15083I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.049356 + 0.679141I$ $a = -4.06707 - 7.37445I$ $b = 0.211661 - 0.213403I$	$0.65806 + 2.13491I$	$-3.7911 + 41.5128I$
$u = -0.049356 - 0.679141I$ $a = -4.06707 + 7.37445I$ $b = 0.211661 + 0.213403I$	$0.65806 - 2.13491I$	$-3.7911 - 41.5128I$
$u = -0.345401 + 0.562828I$ $a = 1.079840 - 0.026704I$ $b = 1.43886 + 0.80805I$	$2.60435 - 5.50536I$	$8.17810 + 10.12100I$
$u = -0.345401 - 0.562828I$ $a = 1.079840 + 0.026704I$ $b = 1.43886 - 0.80805I$	$2.60435 + 5.50536I$	$8.17810 - 10.12100I$
$u = 0.331681 + 0.523775I$ $a = -1.065230 + 0.540959I$ $b = -1.11153 + 1.03548I$	$3.09371 + 0.52538I$	$9.90827 - 3.67207I$
$u = 0.331681 - 0.523775I$ $a = -1.065230 - 0.540959I$ $b = -1.11153 - 1.03548I$	$3.09371 - 0.52538I$	$9.90827 + 3.67207I$
$u = 0.170277 + 0.493014I$ $a = 0.73593 + 1.99770I$ $b = -0.348401 + 0.520479I$	$1.35750 + 0.77449I$	$3.79816 + 1.46964I$
$u = 0.170277 - 0.493014I$ $a = 0.73593 - 1.99770I$ $b = -0.348401 - 0.520479I$	$1.35750 - 0.77449I$	$3.79816 - 1.46964I$
$u = 0.485463 + 0.020121I$ $a = -0.398789 - 1.077720I$ $b = 0.850535 + 0.743850I$	$-0.04571 + 4.74027I$	$6.49908 - 5.57095I$
$u = 0.485463 - 0.020121I$ $a = -0.398789 + 1.077720I$ $b = 0.850535 - 0.743850I$	$-0.04571 - 4.74027I$	$6.49908 + 5.57095I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.334435 + 0.319559I$ $a = -1.47425 + 2.33133I$ $b = 0.404340 + 1.278840I$	$3.64262 + 2.01368I$	$11.35214 - 6.18075I$
$u = 0.334435 - 0.319559I$ $a = -1.47425 - 2.33133I$ $b = 0.404340 - 1.278840I$	$3.64262 - 2.01368I$	$11.35214 + 6.18075I$
$u = 0.00649 + 1.54238I$ $a = 0.21865 - 2.91487I$ $b = 0.21929 - 2.08709I$	$-2.64074 + 2.57318I$	0
$u = 0.00649 - 1.54238I$ $a = 0.21865 + 2.91487I$ $b = 0.21929 + 2.08709I$	$-2.64074 - 2.57318I$	0
$u = -0.351711 + 0.263028I$ $a = 1.52295 + 2.40752I$ $b = -0.773586 + 1.088950I$	$3.41440 + 2.89559I$	$11.29503 - 0.80048I$
$u = -0.351711 - 0.263028I$ $a = 1.52295 - 2.40752I$ $b = -0.773586 - 1.088950I$	$3.41440 - 2.89559I$	$11.29503 + 0.80048I$
$u = 0.05749 + 1.56794I$ $a = 1.60542 - 1.04355I$ $b = 1.76518 - 0.94006I$	$-4.04246 + 1.74152I$	0
$u = 0.05749 - 1.56794I$ $a = 1.60542 + 1.04355I$ $b = 1.76518 + 0.94006I$	$-4.04246 - 1.74152I$	0
$u = -0.06787 + 1.57326I$ $a = -1.88218 - 0.50014I$ $b = -2.03284 - 0.61356I$	$-4.67331 - 6.86430I$	0
$u = -0.06787 - 1.57326I$ $a = -1.88218 + 0.50014I$ $b = -2.03284 + 0.61356I$	$-4.67331 + 6.86430I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.02636 + 1.58296I$ $a = -0.03578 - 1.50159I$ $b = 0.705909 - 0.781446I$	$-5.92590 + 1.33377I$	0
$u = 0.02636 - 1.58296I$ $a = -0.03578 + 1.50159I$ $b = 0.705909 + 0.781446I$	$-5.92590 - 1.33377I$	0
$u = 0.18347 + 1.58484I$ $a = 0.360763 - 0.757569I$ $b = -0.261769 - 0.839182I$	$-8.84874 + 0.48741I$	0
$u = 0.18347 - 1.58484I$ $a = 0.360763 + 0.757569I$ $b = -0.261769 + 0.839182I$	$-8.84874 - 0.48741I$	0
$u = -0.398279 + 0.013530I$ $a = 0.938259 + 1.052560I$ $b = -0.839928 - 0.266112I$	$1.200820 + 0.135633I$	$10.41521 - 0.49094I$
$u = -0.398279 - 0.013530I$ $a = 0.938259 - 1.052560I$ $b = -0.839928 + 0.266112I$	$1.200820 - 0.135633I$	$10.41521 + 0.49094I$
$u = -0.04900 + 1.60834I$ $a = -0.163063 + 0.427641I$ $b = -0.996770 + 0.017416I$	$-8.65958 - 2.85508I$	0
$u = -0.04900 - 1.60834I$ $a = -0.163063 - 0.427641I$ $b = -0.996770 - 0.017416I$	$-8.65958 + 2.85508I$	0
$u = -0.01243 + 1.61005I$ $a = 4.20907 - 1.82134I$ $b = -0.282683 - 0.182370I$	$-7.26471 + 1.91119I$	0
$u = -0.01243 - 1.61005I$ $a = 4.20907 + 1.82134I$ $b = -0.282683 + 0.182370I$	$-7.26471 - 1.91119I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.09234 + 1.63211I$ $a = -0.52019 + 1.88202I$ $b = -1.13740 + 1.31093I$	$-9.19819 - 4.29526I$	0
$u = -0.09234 - 1.63211I$ $a = -0.52019 - 1.88202I$ $b = -1.13740 - 1.31093I$	$-9.19819 + 4.29526I$	0
$u = 0.10241 + 1.63406I$ $a = 0.44688 + 2.25253I$ $b = 1.13698 + 1.65533I$	$-10.6594 + 9.4536I$	0
$u = 0.10241 - 1.63406I$ $a = 0.44688 - 2.25253I$ $b = 1.13698 - 1.65533I$	$-10.6594 - 9.4536I$	0
$u = -0.19581 + 1.62772I$ $a = -0.028644 - 1.044970I$ $b = 0.575863 - 0.832632I$	$-6.29500 - 6.01229I$	0
$u = -0.19581 - 1.62772I$ $a = -0.028644 + 1.044970I$ $b = 0.575863 + 0.832632I$	$-6.29500 + 6.01229I$	0
$u = 0.16718 + 1.63714I$ $a = 0.27278 - 1.56528I$ $b = -0.651768 - 1.223680I$	$-12.1301 + 8.8302I$	0
$u = 0.16718 - 1.63714I$ $a = 0.27278 + 1.56528I$ $b = -0.651768 + 1.223680I$	$-12.1301 - 8.8302I$	0
$u = -0.04375 + 1.64757I$ $a = -0.028083 + 1.158780I$ $b = -0.425950 + 0.521893I$	$-8.90382 - 2.51455I$	0
$u = -0.04375 - 1.64757I$ $a = -0.028083 - 1.158780I$ $b = -0.425950 - 0.521893I$	$-8.90382 + 2.51455I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.09434 + 1.65580I$ $a = -0.15890 + 1.82134I$ $b = 0.48529 + 1.40625I$	$-14.3142 + 2.9381I$	0
$u = 0.09434 - 1.65580I$ $a = -0.15890 - 1.82134I$ $b = 0.48529 - 1.40625I$	$-14.3142 - 2.9381I$	0
$u = -0.17049 + 1.65268I$ $a = 0.18613 - 1.81679I$ $b = 1.00691 - 1.19883I$	$-5.29842 - 10.57260I$	0
$u = -0.17049 - 1.65268I$ $a = 0.18613 + 1.81679I$ $b = 1.00691 + 1.19883I$	$-5.29842 + 10.57260I$	0
$u = 0.16564 + 1.65397I$ $a = -0.12615 - 2.02494I$ $b = -1.04487 - 1.34226I$	$-6.9597 + 16.4745I$	0
$u = 0.16564 - 1.65397I$ $a = -0.12615 + 2.02494I$ $b = -1.04487 + 1.34226I$	$-6.9597 - 16.4745I$	0
$u = -0.295195$ $a = 2.10631$ $b = -0.614585$	0.931731	11.9810
$u = 0.06001 + 1.71584I$ $a = -0.304602 + 0.966268I$ $b = -0.057490 + 0.749405I$	$-9.46041 - 2.81380I$	0
$u = 0.06001 - 1.71584I$ $a = -0.304602 - 0.966268I$ $b = -0.057490 - 0.749405I$	$-9.46041 + 2.81380I$	0

II. $I_2^u = \langle b,\ 2a-1,\ u^2-u+1\rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ -u+1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0.5 \\ 0 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} \frac{1}{2}u \\ \frac{1}{2}u-\frac{1}{2} \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u \\ u-1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u \\ -u+2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -\frac{1}{2}u \\ \frac{3}{2}u-\frac{3}{2} \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u \\ -u+1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4u + \frac{23}{4}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6, c_{11} c_{12}	$u^2 + u + 1$
c_2, c_4, c_5	$u^2 - u + 1$
c_3	u^2
c_7	$(u+1)^2$
c_8	$4(4u^2 - 2u + 1)$
c_9	$4(4u^2 - 6u + 3)$
c_{10}	$(u-1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4 c_5, c_6, c_{11} c_{12}	$y^2 + y + 1$
c_3	y^2
c_7, c_{10}	$(y-1)^2$
c_8	$16(16y^2 + 4y + 1)$
c_9	$16(16y^2 - 12y + 9)$

(vi) Complex Volumes and Cusp Shapes

	Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u =$	$0.500000 + 0.866025I$		
$a =$	0.500000	$1.64493 + 2.02988I$	$3.75000 - 3.46410I$
$b =$	0		
$u =$	$0.500000 - 0.866025I$		
$a =$	0.500000	$1.64493 - 2.02988I$	$3.75000 + 3.46410I$
$b =$	0		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^2+u+1)(u^{79}+28u^{78}+\cdots+2u+1)$
c_2	$(u^2-u+1)(u^{79}-2u^{78}+\cdots+4u-1)$
c_3	$u^2(u^{79}-u^{78}+\cdots+224u-64)$
c_4, c_5	$(u^2-u+1)(u^{79}+2u^{78}+\cdots+u^2-1)$
c_6	$(u^2+u+1)(u^{79}-2u^{78}+\cdots+4u-1)$
c_7	$((u+1)^2)(u^{79}+3u^{78}+\cdots+8u-16)$
c_8	$16(4u^2-2u+1)(4u^{79}+62u^{78}+\cdots-19u-983)$
c_9	$16(4u^2-6u+3)(4u^{79}+70u^{78}+\cdots+5805u-1399)$
c_{10}	$((u-1)^2)(u^{79}+3u^{78}+\cdots+8u-16)$
c_{11}, c_{12}	$(u^2+u+1)(u^{79}+2u^{78}+\cdots+u^2-1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^2+y+1)(y^{79}+40y^{78}+\cdots-82y-1)$
c_2, c_6	$(y^2+y+1)(y^{79}-28y^{78}+\cdots+2y-1)$
c_3	$y^2(y^{79}+15y^{78}+\cdots-1536y-4096)$
c_4, c_5, c_{11} c_{12}	$(y^2+y+1)(y^{79}+92y^{78}+\cdots+2y-1)$
c_7, c_{10}	$((y-1)^2)(y^{79}-47y^{78}+\cdots+10272y-256)$
c_8	$256(16y^2+4y+1)(16y^{79}+916y^{78}+\cdots-1527221y-966289)$
c_9	$256(16y^2-12y+9)(16y^{79}-828y^{78}+\cdots+2.53292\times10^7y-1957201)$