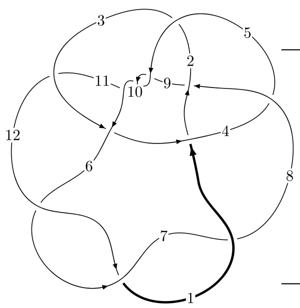
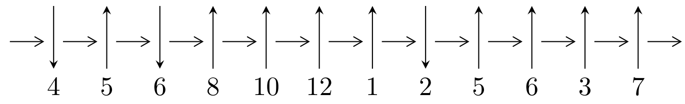
$12n_{0684}$ ($K12n_{0684}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 2.79905 \times 10^{36} u^{48} - 3.47735 \times 10^{36} u^{47} + \cdots + 2.46397 \times 10^{35} b - 8.54140 \times 10^{36}, \\ & -1.52263 \times 10^{37} u^{48} + 2.01595 \times 10^{37} u^{47} + \cdots + 2.46397 \times 10^{35} a + 4.41343 \times 10^{37},\ u^{49} - u^{48} + \cdots - 11u - \\ I_2^u = \langle & u^8 - 6u^6 - u^5 + 11u^4 + 4u^3 - 6u^2 + b - 3u, \\ & -u^9 - u^8 + 7u^7 + 7u^6 - 16u^5 - 16u^4 + 13u^3 + 13u^2 + a - 3u - 2, \\ & u^{11} - 8u^9 - u^8 + 23u^7 + 6u^6 - 28u^5 - 11u^4 + 12u^3 + 6u^2 - 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 60 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.
$\boldsymbol{I_1^u = \langle 2.80\times10^{36}u^{48}-3.48\times10^{36}u^{47}+\cdots+2.46\times10^{35}b-8.54\times10^{36},\ -1.52\times10^{37}u^{48}+2.02\times10^{37}u^{47}+\cdots+2.46\times10^{35}a+4.41\times10^{37},\ u^{49}-u^{48}+\cdots-11u-1\rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_7 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_1 = \begin{pmatrix}u\\-u^3+u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}61.7957u^{48}-81.8168u^{47}+\cdots-1478.08u-179.118\\-11.3599u^{48}+14.1128u^{47}+\cdots+260.816u+34.6651\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-u^2+1\\u^4-2u^2\end{pmatrix}$$
$$a_3 = \begin{pmatrix}50.4358u^{48}-67.7041u^{47}+\cdots-1217.27u-144.453\\-11.3599u^{48}+14.1128u^{47}+\cdots+260.816u+34.6651\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}0.0440751u^{48}+0.409727u^{47}+\cdots+27.7427u+11.4620\\-14.3871u^{48}+19.4508u^{47}+\cdots+353.858u+45.6249\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}14.4312u^{48}-19.0411u^{47}+\cdots-326.115u-34.1629\\-14.3871u^{48}+19.4508u^{47}+\cdots+353.858u+45.6249\end{pmatrix}$$
$$a_5 = \begin{pmatrix}64.0525u^{48}-85.7056u^{47}+\cdots-1545.71u-185.562\\-12.0629u^{48}+15.1894u^{47}+\cdots+279.471u+36.8940\end{pmatrix}$$
$$a_2 = \begin{pmatrix}49.9570u^{48}-67.3760u^{47}+\cdots-1201.28u-146.399\\-23.5956u^{48}+30.8548u^{47}+\cdots+561.583u+71.2213\end{pmatrix}$$
$$a_9 = \begin{pmatrix}4.08898u^{48}-6.07759u^{47}+\cdots-126.997u-13.5152\\20.0723u^{48}-26.3130u^{47}+\cdots-472.737u-58.6870\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 16.0931u^{48}-20.2673u^{47}+\cdots-400.029u-58.9748$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{49} + u^{48} + \cdots + 25u - 7$
c_2	$u^{49} + 2u^{48} + \cdots - 33u + 1$
c_3	$u^{49} - 3u^{48} + \cdots + 210u - 19$
c_4	$u^{49} - 9u^{47} + \cdots - 36u + 8$
c_5, c_9, c_{10}	$u^{49} + u^{48} + \cdots - 13u + 1$
c_6, c_7, c_{12}	$u^{49} - u^{48} + \cdots - 11u - 1$
c_8	$u^{49} - 20u^{47} + \cdots + 8u - 1$
c_{11}	$u^{49} - 3u^{48} + \cdots + 288u - 32$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{49} - 5y^{48} + \cdots + 4153y - 49$
c_2	$y^{49} + 48y^{48} + \cdots + 37y - 1$
c_3	$y^{49} - 35y^{48} + \cdots + 18032y - 361$
c_4	$y^{49} - 18y^{48} + \cdots + 1232y - 64$
c_5, c_9, c_{10}	$y^{49} - 3y^{48} + \cdots + 43y - 1$
c_6, c_7, c_{12}	$y^{49} - 55y^{48} + \cdots + 81y - 1$
c_8	$y^{49} - 40y^{48} + \cdots + 180y - 1$
c_{11}	$y^{49} + 35y^{48} + \cdots + 56832y - 1024$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.641764 + 0.767757I$ $a = 0.212708 - 1.025840I$ $b = 1.42317 + 0.51659I$	$-5.75634 - 10.26200I$	$6.00000 + 7.47867I$
$u = -0.641764 - 0.767757I$ $a = 0.212708 + 1.025840I$ $b = 1.42317 - 0.51659I$	$-5.75634 + 10.26200I$	$6.00000 - 7.47867I$
$u = 0.651655 + 0.692689I$ $a = 0.330766 - 1.178850I$ $b = -1.300300 - 0.081727I$	$-5.91198 + 1.73898I$	$4.34337 - 2.71429I$
$u = 0.651655 - 0.692689I$ $a = 0.330766 + 1.178850I$ $b = -1.300300 + 0.081727I$	$-5.91198 - 1.73898I$	$4.34337 + 2.71429I$
$u = -0.418476 + 0.844249I$ $a = 0.040141 - 0.607878I$ $b = 1.308240 - 0.286159I$	$-6.42599 + 4.95557I$	$3.91217 - 3.09562I$
$u = -0.418476 - 0.844249I$ $a = 0.040141 + 0.607878I$ $b = 1.308240 + 0.286159I$	$-6.42599 - 4.95557I$	$3.91217 + 3.09562I$
$u = 0.916750 + 0.118980I$ $a = 0.496846 - 0.222435I$ $b = 0.612158 - 0.106927I$	$0.735978 + 0.014240I$	$7.49141 - 0.27992I$
$u = 0.916750 - 0.118980I$ $a = 0.496846 + 0.222435I$ $b = 0.612158 + 0.106927I$	$0.735978 - 0.014240I$	$7.49141 + 0.27992I$
$u = -0.885292$ $a = -1.45711$ $b = 0.545766$	5.54572	19.1080
$u = 0.394498 + 0.733725I$ $a = -0.353920 - 0.514157I$ $b = -1.47752 + 0.36490I$	$-6.67269 + 3.03560I$	$3.18463 - 3.23924I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.394498 - 0.733725I$ $a = -0.353920 + 0.514157I$ $b = -1.47752 - 0.36490I$	$-6.67269 - 3.03560I$	$3.18463 + 3.23924I$
$u = 0.403337 + 0.674822I$ $a = 0.837586 + 0.999517I$ $b = 0.918674 - 0.482145I$	$0.07476 + 3.86279I$	$10.31758 - 8.58603I$
$u = 0.403337 - 0.674822I$ $a = 0.837586 - 0.999517I$ $b = 0.918674 + 0.482145I$	$0.07476 - 3.86279I$	$10.31758 + 8.58603I$
$u = -0.493733 + 0.506424I$ $a = -0.022452 + 1.205660I$ $b = -1.239100 - 0.295194I$	$-2.18381 - 1.77583I$	$1.28363 + 3.40944I$
$u = -0.493733 - 0.506424I$ $a = -0.022452 - 1.205660I$ $b = -1.239100 + 0.295194I$	$-2.18381 + 1.77583I$	$1.28363 - 3.40944I$
$u = 0.596049 + 0.332001I$ $a = 0.0930989 + 0.0322612I$ $b = 0.645047 + 0.351272I$	$0.939381 - 0.004377I$	$11.68329 - 2.14560I$
$u = 0.596049 - 0.332001I$ $a = 0.0930989 - 0.0322612I$ $b = 0.645047 - 0.351272I$	$0.939381 + 0.004377I$	$11.68329 + 2.14560I$
$u = 0.652271$ $a = 0.372389$ $b = 0.495923$	0.846303	11.2940
$u = -1.401180 + 0.071282I$ $a = -0.228982 - 1.296890I$ $b = -0.744826 + 0.130454I$	$2.86436 - 3.85776I$	0
$u = -1.401180 - 0.071282I$ $a = -0.228982 + 1.296890I$ $b = -0.744826 - 0.130454I$	$2.86436 + 3.85776I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.488996 + 0.327400I$ $a = 0.094924 + 1.056710I$ $b = -0.305008 - 1.271100I$	$-0.54405 - 4.24517I$	$9.7728 + 10.6066I$
$u = -0.488996 - 0.327400I$ $a = 0.094924 - 1.056710I$ $b = -0.305008 + 1.271100I$	$-0.54405 + 4.24517I$	$9.7728 - 10.6066I$
$u = 1.44515$ $a = -0.954855$ $b = 1.92486$	8.23306	0
$u = -1.45917 + 0.05319I$ $a = -0.69275 + 1.30705I$ $b = 0.771612 - 1.000240I$	$7.20281 - 1.16880I$	0
$u = -1.45917 - 0.05319I$ $a = -0.69275 - 1.30705I$ $b = 0.771612 + 1.000240I$	$7.20281 + 1.16880I$	0
$u = 1.41436 + 0.36426I$ $a = -0.617433 + 0.658074I$ $b = 1.074250 + 0.051023I$	$-0.604182 - 0.592066I$	0
$u = 1.41436 - 0.36426I$ $a = -0.617433 - 0.658074I$ $b = 1.074250 - 0.051023I$	$-0.604182 + 0.592066I$	0
$u = -1.44925 + 0.23283I$ $a = 0.84275 + 1.38899I$ $b = -1.63496 - 0.71058I$	$-0.76793 - 6.48546I$	0
$u = -1.44925 - 0.23283I$ $a = 0.84275 - 1.38899I$ $b = -1.63496 + 0.71058I$	$-0.76793 + 6.48546I$	0
$u = 1.46849 + 0.04497I$ $a = 0.55860 - 1.84941I$ $b = -1.027200 + 0.837713I$	$4.92852 + 3.18189I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.46849 - 0.04497I$ $a = 0.55860 + 1.84941I$ $b = -1.027200 - 0.837713I$	$4.92852 - 3.18189I$	0
$u = -1.49018 + 0.23223I$ $a = -0.13850 - 1.62478I$ $b = 0.993261 + 0.685172I$	$6.26979 - 7.15802I$	0
$u = -1.49018 - 0.23223I$ $a = -0.13850 + 1.62478I$ $b = 0.993261 - 0.685172I$	$6.26979 + 7.15802I$	0
$u = 1.51747 + 0.10193I$ $a = -0.02195 - 2.18037I$ $b = -0.11588 + 1.86186I$	$6.15386 + 5.81406I$	0
$u = 1.51747 - 0.10193I$ $a = -0.02195 + 2.18037I$ $b = -0.11588 - 1.86186I$	$6.15386 - 5.81406I$	0
$u = 0.070104 + 0.447962I$ $a = 0.86248 + 2.37421I$ $b = -0.112925 + 0.222459I$	$-1.85819 + 2.41374I$	$0.89088 - 1.57246I$
$u = 0.070104 - 0.447962I$ $a = 0.86248 - 2.37421I$ $b = -0.112925 - 0.222459I$	$-1.85819 - 2.41374I$	$0.89088 + 1.57246I$
$u = 1.54796 + 0.13800I$ $a = 0.89692 - 1.56299I$ $b = -1.24570 + 0.84885I$	$4.67206 + 4.01107I$	0
$u = 1.54796 - 0.13800I$ $a = 0.89692 + 1.56299I$ $b = -1.24570 - 0.84885I$	$4.67206 - 4.01107I$	0
$u = -1.57059$ $a = -0.818373$ $b = 1.53662$	8.63484	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.58313 + 0.26404I$ $a = -0.66377 + 1.57029I$ $b = 1.47297 - 0.74698I$	$1.5668 + 14.1154I$	0
$u = 1.58313 - 0.26404I$ $a = -0.66377 - 1.57029I$ $b = 1.47297 + 0.74698I$	$1.5668 - 14.1154I$	0
$u = -1.59972 + 0.24025I$ $a = 0.852446 + 1.040690I$ $b = -1.079970 - 0.166315I$	$1.59039 - 5.25681I$	0
$u = -1.59972 - 0.24025I$ $a = 0.852446 - 1.040690I$ $b = -1.079970 + 0.166315I$	$1.59039 + 5.25681I$	0
$u = -0.330191 + 0.002846I$ $a = 0.86697 + 4.04000I$ $b = -0.815216 - 0.660545I$	$-1.14597 - 2.72643I$	$9.81282 + 0.77699I$
$u = -0.330191 - 0.002846I$ $a = 0.86697 - 4.04000I$ $b = -0.815216 + 0.660545I$	$-1.14597 + 2.72643I$	$9.81282 - 0.77699I$
$u = 1.69294$ $a = -0.633603$ $b = 0.160994$	14.6945	0
$u = -1.78378$ $a = -0.529461$ $b = 0.690019$	11.4992	0
$u = -0.132976$ $a = 5.52802$ $b = 1.40427$	2.79880	-5.65840

II. $I_2^u = \langle u^8 - 6u^6 - u^5 + 11u^4 + 4u^3 - 6u^2 + b - 3u,\ -u^9 - u^8 + \cdots + a - 2,\ u^{11} - 8u^9 + \cdots + 6u^2 - 1\rangle$

(i) Arc colorings

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

$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u^9 + u^8 - 7u^7 - 7u^6 + 16u^5 + 16u^4 - 13u^3 - 13u^2 + 3u + 2 \\ -u^8 + 6u^6 + u^5 - 11u^4 - 4u^3 + 6u^2 + 3u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u^2 + 1 \\ u^4 - 2u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^9 - 7u^7 - u^6 + 17u^5 + 5u^4 - 17u^3 - 7u^2 + 6u + 2 \\ -u^8 + 6u^6 + u^5 - 11u^4 - 4u^3 + 6u^2 + 3u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^4 + 4u^2 - 3 \\ u^7 - 5u^5 - u^4 + 7u^3 + 3u^2 - 2u - 1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u^7 + 5u^5 - 7u^3 + u^2 + 2u - 2 \\ u^7 - 5u^5 - u^4 + 7u^3 + 3u^2 - 2u - 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^9 - 7u^7 - 2u^6 + 17u^5 + 9u^4 - 16u^3 - 11u^2 + 4u + 3 \\ u^6 - 4u^4 - u^3 + 4u^2 + 2u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 2u^9 + u^8 - 13u^7 - 7u^6 + 28u^5 + 15u^4 - 23u^3 - 10u^2 + 7u \\ -u^9 - u^8 + 6u^7 + 7u^6 - 11u^5 - 15u^4 + 5u^3 + 10u^2 + u - 1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^8 - u^7 + 6u^6 + 7u^5 - 12u^4 - 14u^3 + 9u^2 + 8u - 2 \\ u^{10} - 7u^8 - u^7 + 17u^6 + 4u^5 - 16u^4 - 4u^3 + 4u^2 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= 2u^{10} + 5u^9 - 13u^8 - 35u^7 + 22u^6 + 88u^5 + 5u^4 - 94u^3 - 29u^2 + 33u + 21$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{11} - 8u^{10} + \cdots + 6u - 1$
c_2	$u^{11} + 3u^{10} + \cdots - 4u + 1$
c_3	$u^{11} - 4u^9 + 6u^8 + 4u^7 - 15u^6 + 8u^5 + 9u^4 - 11u^3 + u^2 + 3u - 1$
c_4	$u^{11} - u^{10} - 5u^9 + 5u^8 + 8u^7 - 9u^6 - 6u^5 + 8u^4 + 4u^3 - 4u^2 - u + 1$
c_5	$u^{11} - 4u^9 + u^8 + u^7 + 3u^5 + u^4 - u^2 - 1$
c_6, c_7	$u^{11} - 8u^9 - u^8 + 23u^7 + 6u^6 - 28u^5 - 11u^4 + 12u^3 + 6u^2 - 1$
c_8	$u^{11} + u^{10} - 4u^9 - 4u^8 + 8u^7 + 6u^6 - 9u^5 - 8u^4 + 5u^3 + 5u^2 - u - 1$
c_9, c_{10}	$u^{11} - 4u^9 - u^8 + u^7 + 3u^5 - u^4 + u^2 + 1$
c_{11}	$u^{11} + u^9 - u^7 - 3u^6 - u^4 - u^3 + 4u^2 - 1$
c_{12}	$u^{11} - 8u^9 + u^8 + 23u^7 - 6u^6 - 28u^5 + 11u^4 + 12u^3 - 6u^2 + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{11} - 2y^{10} + \cdots + 40y - 1$
c_2	$y^{11} + 3y^{10} + \cdots + 44y - 1$
c_3	$y^{11} - 8y^{10} + \cdots + 11y - 1$
c_4	$y^{11} - 11y^{10} + \cdots + 9y - 1$
c_5, c_9, c_{10}	$y^{11} - 8y^{10} + 18y^9 - 3y^8 - 23y^7 + 4y^6 + 11y^5 + y^4 + 2y^3 + y^2 - 2y - 1$
c_6, c_7, c_{12}	$y^{11} - 16y^{10} + \cdots + 12y - 1$
c_8	$y^{11} - 9y^{10} + \cdots + 11y - 1$
c_{11}	$y^{11} + 2y^{10} - y^9 - 2y^8 - y^7 - 11y^6 - 4y^5 + 23y^4 + 3y^3 - 18y^2 + 8y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.878786$ $a = -1.68666$ $b = 0.926856$	4.86824	6.36840
$u = -1.076610 + 0.315115I$ $a = -0.290331 + 0.209919I$ $b = -0.724726 + 0.256674I$	$0.954503 + 0.928333I$	$11.11734 - 6.67941I$
$u = -1.076610 - 0.315115I$ $a = -0.290331 - 0.209919I$ $b = -0.724726 - 0.256674I$	$0.954503 - 0.928333I$	$11.11734 + 6.67941I$
$u = -0.334220 + 0.350205I$ $a = -0.55984 + 2.81156I$ $b = -0.785078 - 0.651739I$	$-1.45690 - 3.34942I$	$3.58906 + 9.96048I$
$u = -0.334220 - 0.350205I$ $a = -0.55984 - 2.81156I$ $b = -0.785078 + 0.651739I$	$-1.45690 + 3.34942I$	$3.58906 - 9.96048I$
$u = -1.52390$ $a = -1.26943$ $b = 2.03629$	9.60351	18.6690
$u = 1.52509 + 0.12133I$ $a = 0.66157 - 1.92570I$ $b = -0.785157 + 1.100430I$	$4.99526 + 5.07300I$	$8.69107 - 6.17699I$
$u = 1.52509 - 0.12133I$ $a = 0.66157 + 1.92570I$ $b = -0.785157 - 1.100430I$	$4.99526 - 5.07300I$	$8.69107 + 6.17699I$
$u = 0.357380$ $a = 1.15323$ $b = 1.49451$	3.06451	25.4100
$u = -1.71050$ $a = -0.920514$ $b = 0.631482$	14.2218	4.29470

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.76972$ $a = 0.100596$ $b = -0.499214$	11.8941	20.4630

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{11}-8u^{10}+\cdots+6u-1)(u^{49}+u^{48}+\cdots+25u-7)$
c_2	$(u^{11}+3u^{10}+\cdots-4u+1)(u^{49}+2u^{48}+\cdots-33u+1)$
c_3	$(u^{11}-4u^9+6u^8+4u^7-15u^6+8u^5+9u^4-11u^3+u^2+3u-1)$ $\cdot(u^{49}-3u^{48}+\cdots+210u-19)$
c_4	$(u^{11}-u^{10}-5u^9+5u^8+8u^7-9u^6-6u^5+8u^4+4u^3-4u^2-u+1)$ $\cdot(u^{49}-9u^{47}+\cdots-36u+8)$
c_5	$(u^{11}-4u^9+\cdots-u^2-1)(u^{49}+u^{48}+\cdots-13u+1)$
c_6, c_7	$(u^{11}-8u^9-u^8+23u^7+6u^6-28u^5-11u^4+12u^3+6u^2-1)$ $\cdot(u^{49}-u^{48}+\cdots-11u-1)$
c_8	$(u^{11}+u^{10}-4u^9-4u^8+8u^7+6u^6-9u^5-8u^4+5u^3+5u^2-u-1)$ $\cdot(u^{49}-20u^{47}+\cdots+8u-1)$
c_9, c_{10}	$(u^{11}-4u^9+\cdots+u^2+1)(u^{49}+u^{48}+\cdots-13u+1)$
c_{11}	$(u^{11}+u^9+\cdots+4u^2-1)(u^{49}-3u^{48}+\cdots+288u-32)$
c_{12}	$(u^{11}-8u^9+u^8+23u^7-6u^6-28u^5+11u^4+12u^3-6u^2+1)$ $\cdot(u^{49}-u^{48}+\cdots-11u-1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{11} - 2y^{10} + \cdots + 40y - 1)(y^{49} - 5y^{48} + \cdots + 4153y - 49)$
c_2	$(y^{11} + 3y^{10} + \cdots + 44y - 1)(y^{49} + 48y^{48} + \cdots + 37y - 1)$
c_3	$(y^{11} - 8y^{10} + \cdots + 11y - 1)(y^{49} - 35y^{48} + \cdots + 18032y - 361)$
c_4	$(y^{11} - 11y^{10} + \cdots + 9y - 1)(y^{49} - 18y^{48} + \cdots + 1232y - 64)$
c_5, c_9, c_{10}	$(y^{11} - 8y^{10} + 18y^9 - 3y^8 - 23y^7 + 4y^6 + 11y^5 + y^4 + 2y^3 + y^2 - 2y - 1)$ $\cdot (y^{49} - 3y^{48} + \cdots + 43y - 1)$
c_6, c_7, c_{12}	$(y^{11} - 16y^{10} + \cdots + 12y - 1)(y^{49} - 55y^{48} + \cdots + 81y - 1)$
c_8	$(y^{11} - 9y^{10} + \cdots + 11y - 1)(y^{49} - 40y^{48} + \cdots + 180y - 1)$
c_{11}	$(y^{11} + 2y^{10} - y^9 - 2y^8 - y^7 - 11y^6 - 4y^5 + 23y^4 + 3y^3 - 18y^2 + 8y - 1)$ $\cdot (y^{49} + 35y^{48} + \cdots + 56832y - 1024)$