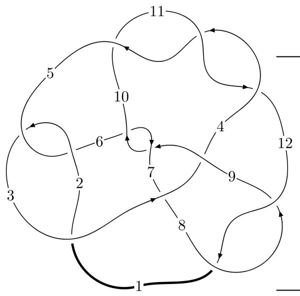
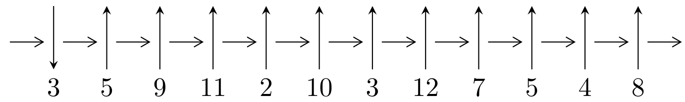
$12n_{0432}$ ($K12n_{0432}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u &= \langle 74u^{12} - 692u^{11} + \cdots + 2529b + 2355,\ 785u^{12} - 3703u^{11} + \cdots + 7587a + 387,\\
&\quad u^{13} - 5u^{12} + 15u^{11} - 29u^{10} + 44u^9 - 54u^8 + 61u^7 - 62u^6 + 65u^5 - 67u^4 + 72u^3 - 57u^2 + 36u - 9\rangle\\
I_2^u &= \langle b + u - 1,\ u^4 - 4u^3 + 8u^2 + a - 7u + 3,\ u^5 - 4u^4 + 8u^3 - 7u^2 + 2u + 1\rangle\\
I_3^u &= \langle a^3 - a^2u - a^2 + 3au + b + 2u + 3,\ a^4 - a^3u + 2a^2u - a^2 + 4au + 3a + 2,\ u^2 + u + 1\rangle\\
I_4^u &= \langle -a^3 - a^2u - a^2 + au + b + 2u + 1,\ a^4 + a^3u - 2a^2u - a^2 - 2au - a + 2u,\ u^2 + u + 1\rangle
\end{aligned}$$

* 4 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 34 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. $\boldsymbol{I_1^u = \langle 74u^{12} - 692u^{11} + \cdots + 2529b + 2355,\ 785u^{12} - 3703u^{11} + \cdots + 7587a + 387,\ u^{13} - 5u^{12} + \cdots + 36u - 9\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.103466u^{12} + 0.488072u^{11} + \cdots + 2.94108u - 0.0510083 \\ -0.0292606u^{12} + 0.273626u^{11} + \cdots + 3.67378u - 0.931198 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.0726242u^{12} + 0.196652u^{11} + \cdots - 1.94029u + 0.651246 \\ -0.166469u^{12} + 0.622776u^{11} + \cdots + 4.26572u - 0.653618 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.168051u^{12} - 0.640569u^{11} + \cdots - 3.47331u + 1.42467 \\ 0.0723606u^{12} - 0.397390u^{11} + \cdots - 4.74733u + 1.77580 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.115724u^{12} + 0.320417u^{11} + \cdots - 0.866746u - 0.193357 \\ -0.148675u^{12} + 1.00593u^{11} + \cdots + 7.18031u - 1.47924 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.0742059u^{12} + 0.214446u^{11} + \cdots - 0.732701u + 0.880190 \\ -0.0292606u^{12} + 0.273626u^{11} + \cdots + 3.67378u - 0.931198 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.0938447u^{12} - 0.426124u^{11} + \cdots - 5.20601u + 2.30486 \\ -0.166469u^{12} + 0.622776u^{11} + \cdots + 3.26572u - 0.653618 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.319889u^{12} - 1.34875u^{11} + \cdots - 4.40214u + 1.44603 \\ -0.329775u^{12} + 0.876631u^{11} + \cdots - 5.21708u + 2.23488 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.628312u^{12} - 2.59628u^{11} + \cdots - 11.5492u + 3.46856 \\ -0.758798u^{12} + 2.67537u^{11} + \cdots + 5.17556u - 0.747331 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.00237248u^{12} - 0.139976u^{11} + \cdots - 2.52195u + 0.843416 \\ 0.199684u^{12} - 0.774219u^{11} + \cdots - 4.62515u + 1.51246 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{3325}{2529}u^{12} - \frac{17666}{2529}u^{11} + \frac{17227}{843}u^{10} - \frac{96773}{2529}u^9 + \frac{137357}{2529}u^8 - \frac{17822}{281}u^7 + \frac{173059}{2529}u^6 - \frac{170021}{2529}u^5 + \frac{175199}{2529}u^4 - \frac{187657}{2529}u^3 + \frac{67681}{843}u^2 - \frac{48875}{843}u + \frac{9022}{281}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{13} - u^{12} + \cdots + 4u - 1$
c_2, c_5, c_6 c_9	$u^{13} + u^{12} + \cdots + 2u - 1$
c_3	$u^{13} - 5u^{12} + \cdots + 36u - 9$
c_4, c_8, c_{10} c_{11}, c_{12}	$u^{13} + 8u^{11} + \cdots - u - 1$
c_7	$u^{13} - u^{12} + \cdots + 90u - 25$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{13} + 35y^{12} + \cdots + 212y - 1$
c_2, c_5, c_6 c_9	$y^{13} - y^{12} + \cdots + 4y - 1$
c_3	$y^{13} + 5y^{12} + \cdots + 270y - 81$
c_4, c_8, c_{10} c_{11}, c_{12}	$y^{13} + 16y^{12} + \cdots - 5y - 1$
c_7	$y^{13} - 7y^{12} + \cdots + 3150y - 625$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.377421 + 0.995561I$ $a = 1.42395 + 0.27192I$ $b = 0.26672 + 1.52025I$	$-13.25130 + 1.59234I$	$-1.196156 - 0.103558I$
$u = 0.377421 - 0.995561I$ $a = 1.42395 - 0.27192I$ $b = 0.26672 - 1.52025I$	$-13.25130 - 1.59234I$	$-1.196156 + 0.103558I$
$u = -0.826366 + 0.684268I$ $a = -0.040776 + 0.277567I$ $b = -0.156234 - 0.257273I$	$-1.74296 - 2.47632I$	$11.79558 + 3.97407I$
$u = -0.826366 - 0.684268I$ $a = -0.040776 - 0.277567I$ $b = -0.156234 + 0.257273I$	$-1.74296 + 2.47632I$	$11.79558 - 3.97407I$
$u = -0.261323 + 1.190470I$ $a = -0.753030 + 0.372533I$ $b = -0.246705 - 0.993811I$	$-5.78672 - 1.79985I$	$0.24328 + 2.30841I$
$u = -0.261323 - 1.190470I$ $a = -0.753030 - 0.372533I$ $b = -0.246705 + 0.993811I$	$-5.78672 + 1.79985I$	$0.24328 - 2.30841I$
$u = 1.197260 + 0.637614I$ $a = 0.000701 + 1.040290I$ $b = -0.662461 + 1.245930I$	$3.92798 - 4.17113I$	$7.23672 + 2.38066I$
$u = 1.197260 - 0.637614I$ $a = 0.000701 - 1.040290I$ $b = -0.662461 - 1.245930I$	$3.92798 + 4.17113I$	$7.23672 - 2.38066I$
$u = 0.80433 + 1.22011I$ $a = 1.250130 + 0.103984I$ $b = 0.87865 + 1.60894I$	$1.94166 + 11.33090I$	$6.29855 - 5.31818I$
$u = 0.80433 - 1.22011I$ $a = 1.250130 - 0.103984I$ $b = 0.87865 - 1.60894I$	$1.94166 - 11.33090I$	$6.29855 + 5.31818I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.425591$ $a = 0.763681$ $b = 0.325016$	0.561978	17.8790
$u = 0.99588 + 1.33587I$ $a = -0.762815 - 0.387161I$ $b = -0.24248 - 1.40459I$	$-8.39874 + 4.39673I$	$4.68261 + 1.52874I$
$u = 0.99588 - 1.33587I$ $a = -0.762815 + 0.387161I$ $b = -0.24248 + 1.40459I$	$-8.39874 - 4.39673I$	$4.68261 - 1.52874I$

II.

$$\boldsymbol{I_2^u = \langle b+u-1,\ u^4-4u^3+8u^2+a-7u+3,\ u^5-4u^4+8u^3-7u^2+2u+1\rangle}$$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -u^4+4u^3-8u^2+7u-3 \\ -u+1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^4-4u^3+8u^2-8u+4 \\ -u^2+3u-1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -2u^4+8u^3-17u^2+17u-8 \\ -u^3+4u^2-5u+2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^4-5u^3+11u^2-12u+5 \\ -u^4+4u^3-7u^2+5u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^4+4u^3-8u^2+8u-4 \\ -u+1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^4-4u^3+9u^2-10u+6 \\ -u^2+2u-1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -3u^4+12u^3-25u^2+24u-10 \\ -u^3+4u^2-4u+2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 6u^4-26u^3+56u^2-58u+27 \\ -2u^4+8u^3-15u^2+13u-4 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -2u^4+9u^3-20u^2+22u-11 \\ -u^3+3u^2-4u+2 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= u^4-3u^3+4u^2-8u+5$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.917062 + 0.638199I$ $a = -0.265352 - 0.511254I$ $b = 0.082938 - 0.638199I$	$-2.41512 + 2.46056I$	$-0.73583 - 3.45885I$
$u = 0.917062 - 0.638199I$ $a = -0.265352 + 0.511254I$ $b = 0.082938 + 0.638199I$	$-2.41512 - 2.46056I$	$-0.73583 + 3.45885I$
$u = -0.238871$ $a = -5.18635$ $b = 1.23887$	5.64999	7.18340
$u = 1.20237 + 1.38128I$ $a = -0.641472 - 0.411875I$ $b = -0.202374 - 1.381280I$	$-8.63454 + 4.90423I$	$-1.85585 - 10.90056I$
$u = 1.20237 - 1.38128I$ $a = -0.641472 + 0.411875I$ $b = -0.202374 + 1.381280I$	$-8.63454 - 4.90423I$	$-1.85585 + 10.90056I$

III. $\boldsymbol{I_3^u =}$
$\boldsymbol{\langle a^3 - a^2u - a^2 + 3au + b + 2u + 3,\ a^4 - a^3u + 2a^2u - a^2 + 4au + 3a + 2,\ u^2 + u + 1\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ -u - 1 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} a \\ -a^3 + a^2u + a^2 - 3au - 2u - 3 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -a^2u \\ -a^3u - a^2 + 2au + 2a - u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -a^3u - a^3 + a \\ a^3u - au - 2a - 1 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} a^3u - a^2u - 2au - 2a + u \\ -a^3u + a^3 - a^2 + 4au + 2a - u + 1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} a^3 - a^2u - a^2 + 3au + a + 2u + 3 \\ -a^3 + a^2u + a^2 - 3au - 2u - 3 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -a^3u + a^2u + 2au + 2a \\ a^3u - a^3 + a^2 - 4au - 2a - 1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -a^3u - a^3 + 2a + 1 \\ a^3u - 2au - 3a - u - 2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -a^3u - a^3 + a^2u - au + 2a - 2u - 1 \\ 2a^3u + a^3 - a^2u + a^2 - 3au - 6a + 3u - 1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} a^3u + a^2 - 3au - 3a + 2u - 1 \\ a^3u + a^3 - 2a^2u - a^2 + au - 2a + 2u + 2 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 4u + 9$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^8 - 7u^7 + 18u^6 - 20u^5 + 11u^4 - 5u^3 + 3u^2 + 2u + 1$
c_2, c_6	$u^8 - u^7 + 4u^6 - 2u^5 + 3u^4 - u^3 + u^2 - 2u + 1$
c_3	$(u^2 + u + 1)^4$
c_4, c_{12}	$u^8 + u^7 + 6u^6 + 6u^5 + 12u^4 + 13u^3 + 11u^2 + 10u + 4$
c_5, c_9	$u^8 + u^7 + 4u^6 + 2u^5 + 3u^4 + u^3 + u^2 + 2u + 1$
c_7	$u^8 - 5u^7 + 19u^6 - 45u^5 + 76u^4 - 100u^3 + 99u^2 - 60u + 16$
c_8, c_{10}, c_{11}	$u^8 - u^7 + 6u^6 - 6u^5 + 12u^4 - 13u^3 + 11u^2 - 10u + 4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^8 - 13y^7 + 66y^6 - 68y^5 + 59y^4 + 157y^3 + 51y^2 + 2y + 1$
c_2, c_5, c_6 c_9	$y^8 + 7y^7 + 18y^6 + 20y^5 + 11y^4 + 5y^3 + 3y^2 - 2y + 1$
c_3	$(y^2 + y + 1)^4$
c_4, c_8, c_{10} c_{11}, c_{12}	$y^8 + 11y^7 + 48y^6 + 104y^5 + 108y^4 + 23y^3 - 43y^2 - 12y + 16$
c_7	$y^8 + 13y^7 + 63y^6 + 61y^5 - 30y^4 + 256y^3 + 233y^2 - 432y + 256$

(vi) Complex Volumes and Cusp Shapes

Solutions to I^u_3	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.500000+0.866025I$ $a=-1.008180+0.726793I$ $b=-0.683684-0.164757I$	$-4.27683-2.02988I$	$7.00000+3.46410I$
$u=-0.500000+0.866025I$ $a=-1.271040+0.252871I$ $b=-0.10751+1.76242I$	$-12.17250-2.02988I$	$7.00000+3.46410I$
$u=-0.500000+0.866025I$ $a=\ \ 0.199158+0.674466I$ $b=-0.125333-1.236500I$	$-4.27683-2.02988I$	$7.00000+3.46410I$
$u=-0.500000+0.866025I$ $a=\ \ 1.58005-0.78810I$ $b=\ \ 0.416526-1.227190I$	$-12.17250-2.02988I$	$7.00000+3.46410I$
$u=-0.500000-0.866025I$ $a=-1.008180-0.726793I$ $b=-0.683684+0.164757I$	$-4.27683+2.02988I$	$7.00000-3.46410I$
$u=-0.500000-0.866025I$ $a=-1.271040-0.252871I$ $b=-0.10751-1.76242I$	$-12.17250+2.02988I$	$7.00000-3.46410I$
$u=-0.500000-0.866025I$ $a=\ \ 0.199158-0.674466I$ $b=-0.125333+1.236500I$	$-4.27683+2.02988I$	$7.00000-3.46410I$
$u=-0.500000-0.866025I$ $a=\ \ 1.58005+0.78810I$ $b=\ \ 0.416526+1.227190I$	$-12.17250+2.02988I$	$7.00000-3.46410I$

IV. $I_4^u =$
$\langle -a^3-a^2u-a^2+au+b+2u+1,\ a^4+a^3u-2a^2u-a^2-2au-a+2u,\ u^2+u+1\rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ -u-1 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} a \\ a^3+a^2u+a^2-au-2u-1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -a^2u \\ -a^3u+a^2-u-2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -a^3u-a^3+a \\ -a^3u+2a^2-au-2u-3 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} a^3u-a^2u-2a^2+u+2 \\ -a^3u+a^3+2a^2u+3a^2-3u-3 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -a^3-a^2u-a^2+au+a+2u+1 \\ a^3+a^2u+a^2-au-2u-1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -a^3u+a^2u+2a^2-2u-2 \\ a^3u-a^3-2a^2u-3a^2+4u+3 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} a^3u-a^3-2a^2+2u+3 \\ -a^3u+2a^3+2a^2u+4a^2+a-5u-4 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -3a^3u+a^3+5a^2u+8a^2-au+2a-8u-7 \\ 4a^3u-5a^3-9a^2u-13a^2+au-2a+15u+11 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} a^3u-2a^3-2a^2u-3a^2+au+a+4u+3 \\ -a^3u+3a^3+4a^2u+5a^2-au-6u-4 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u+9$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^8-17u^7+102u^6-212u^5-177u^4+949u^3+83u^2-594u+361$
c_2, c_5, c_6 c_9	$u^8+u^7-8u^6-12u^5+7u^4+23u^3+45u^2+48u+19$
c_3	$(u^2+u+1)^4$
c_4, c_8, c_{10} c_{11}, c_{12}	$u^8-u^7-2u^6+4u^4+u^3+3u^2+6u+4$
c_7	$u^8-3u^7-3u^6+5u^5+34u^4-12u^3+7u^2-8u+4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^8 - 85y^7 + \cdots - 292910y + 130321$
c_2, c_5, c_6 c_9	$y^8 - 17y^7 + 102y^6 - 212y^5 - 177y^4 + 949y^3 + 83y^2 - 594y + 361$
c_3	$(y^2 + y + 1)^4$
c_4, c_8, c_{10} c_{11}, c_{12}	$y^8 - 5y^7 + 12y^6 - 8y^5 + 24y^4 + 7y^3 + 29y^2 - 12y + 16$
c_7	$y^8 - 15y^7 + 107y^6 - 287y^5 + 1194y^4 + 388y^3 + 129y^2 - 8y + 16$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.500000 + 0.866025I$ $a = -1.038240 + 0.127249I$ $b = -0.717935 + 0.427530I$	$-2.30291 - 2.02988I$	$7.00000 + 3.46410I$
$u = -0.500000 + 0.866025I$ $a = 0.729219 + 0.407985I$ $b = 0.408918 - 0.962763I$	$-2.30291 - 2.02988I$	$7.00000 + 3.46410I$
$u = -0.500000 + 0.866025I$ $a = 1.172410 + 0.406591I$ $b = 1.74734 + 0.58922I$	$5.59278 - 2.02988I$	$7.00000 + 3.46410I$
$u = -0.500000 + 0.866025I$ $a = -0.36339 - 1.80785I$ $b = -0.938321 + 0.812037I$	$5.59278 - 2.02988I$	$7.00000 + 3.46410I$
$u = -0.500000 - 0.866025I$ $a = -1.038240 - 0.127249I$ $b = -0.717935 - 0.427530I$	$-2.30291 + 2.02988I$	$7.00000 - 3.46410I$
$u = -0.500000 - 0.866025I$ $a = 0.729219 - 0.407985I$ $b = 0.408918 + 0.962763I$	$-2.30291 + 2.02988I$	$7.00000 - 3.46410I$
$u = -0.500000 - 0.866025I$ $a = 1.172410 - 0.406591I$ $b = 1.74734 - 0.58922I$	$5.59278 + 2.02988I$	$7.00000 - 3.46410I$
$u = -0.500000 - 0.866025I$ $a = -0.36339 + 1.80785I$ $b = -0.938321 - 0.812037I$	$5.59278 + 2.02988I$	$7.00000 - 3.46410I$

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^5+2u^4-7u^3+8u^2-4u+1)$ $\cdot(u^8-17u^7+102u^6-212u^5-177u^4+949u^3+83u^2-594u+361)$ $\cdot(u^8-7u^7+18u^6-20u^5+11u^4-5u^3+3u^2+2u+1)$ $\cdot(u^{13}-u^{12}+\cdots+4u-1)$
c_2, c_6	$(u^5+2u^4+u^3+2u^2+1)(u^8-u^7+\cdots-2u+1)$ $\cdot(u^8+u^7-8u^6-12u^5+7u^4+23u^3+45u^2+48u+19)$ $\cdot(u^{13}+u^{12}+\cdots+2u-1)$
c_3	$(u^2+u+1)^8(u^5-4u^4+8u^3-7u^2+2u+1)$ $\cdot(u^{13}-5u^{12}+\cdots+36u-9)$
c_4, c_{12}	$(u^5-u^4+2u^3-3u^2+u-1)(u^8-u^7+\cdots+6u+4)$ $\cdot(u^8+u^7+6u^6+6u^5+12u^4+13u^3+11u^2+10u+4)$ $\cdot(u^{13}+8u^{11}+\cdots-u-1)$
c_5, c_9	$(u^5-2u^4+u^3-2u^2-1)$ $\cdot(u^8+u^7-8u^6-12u^5+7u^4+23u^3+45u^2+48u+19)$ $\cdot(u^8+u^7+\cdots+2u+1)(u^{13}+u^{12}+\cdots+2u-1)$
c_7	$(u^5-2u^3-3u^2-4u-3)$ $\cdot(u^8-5u^7+19u^6-45u^5+76u^4-100u^3+99u^2-60u+16)$ $\cdot(u^8-3u^7-3u^6+5u^5+34u^4-12u^3+7u^2-8u+4)$ $\cdot(u^{13}-u^{12}+\cdots+90u-25)$
c_8, c_{10}, c_{11}	$(u^5+u^4+2u^3+3u^2+u+1)(u^8-u^7+\cdots+6u+4)$ $\cdot(u^8-u^7+6u^6-6u^5+12u^4-13u^3+11u^2-10u+4)$ $\cdot(u^{13}+8u^{11}+\cdots-u-1)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^5-18y^4+9y^3-12y^2-1)(y^8-85y^7+\cdots-292910y+130321)$ $\cdot(y^8-13y^7+66y^6-68y^5+59y^4+157y^3+51y^2+2y+1)$ $\cdot(y^{13}+35y^{12}+\cdots+212y-1)$
c_2, c_5, c_6 c_9	$(y^5-2y^4-7y^3-8y^2-4y-1)$ $\cdot(y^8-17y^7+102y^6-212y^5-177y^4+949y^3+83y^2-594y+361)$ $\cdot(y^8+7y^7+18y^6+20y^5+11y^4+5y^3+3y^2-2y+1)$ $\cdot(y^{13}-y^{12}+\cdots+4y-1)$
c_3	$((y^2+y+1)^8)(y^5+12y^3+\cdots+18y-1)(y^{13}+5y^{12}+\cdots+270y-81)$
c_4, c_8, c_{10} c_{11}, c_{12}	$(y^5+3y^4-7y^2-5y-1)$ $\cdot(y^8-5y^7+12y^6-8y^5+24y^4+7y^3+29y^2-12y+16)$ $\cdot(y^8+11y^7+48y^6+104y^5+108y^4+23y^3-43y^2-12y+16)$ $\cdot(y^{13}+16y^{12}+\cdots-5y-1)$
c_7	$(y^5-4y^4-4y^3+7y^2-2y-9)$ $\cdot(y^8-15y^7+107y^6-287y^5+1194y^4+388y^3+129y^2-8y+16)$ $\cdot(y^8+13y^7+63y^6+61y^5-30y^4+256y^3+233y^2-432y+256)$ $\cdot(y^{13}-7y^{12}+\cdots+3150y-625)$