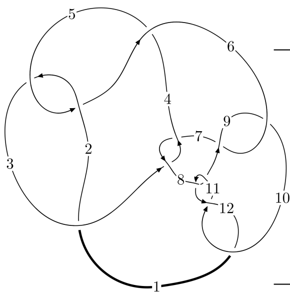
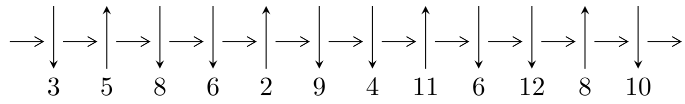
$12n_{0230}$ ($K12n_{0230}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$
\begin{aligned}
I_1^u &= \langle -u^7 + 2u^6 - 3u^5 + 2u^4 - 2u^3 + 2u^2 + b - u,\ u^5 - 2u^4 + 2u^3 + a - u,\\
&\quad u^9 - 3u^8 + 6u^7 - 7u^6 + 7u^5 - 7u^4 + 6u^3 - 4u^2 + u - 1\rangle\\
I_2^u &= \langle 130u^{15} - 449u^{14} + \cdots + 1816b - 497,\ -1016u^{15} + 4012u^{14} + \cdots + 1816a - 9397,\\
&\quad u^{16} - 4u^{15} + \cdots + 2u + 1\rangle\\
I_3^u &= \langle b,\ -u^3a + 2u^2a - u^3 + a^2 - 2au - u^2 + 3u - 4,\ u^4 - u^3 + u^2 + 1\rangle\\
I_4^u &= \langle -a^3u - 2a^3 - 3a^2 - au + 3b + a + u + 5,\ a^4 - a^3u + 2a^3 - a^2u - 4a - u - 4,\ u^2 + u + 1\rangle
\end{aligned}
$$

* 4 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 41 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. $\boldsymbol{I_1^u = \langle -u^7 + 2u^6 - 3u^5 + 2u^4 - 2u^3 + 2u^2 + b - u,\ u^5 - 2u^4 + 2u^3 + a - u,\ u^9 - 3u^8 + \cdots + u - 1\rangle}$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^5 + 2u^4 - 2u^3 + u \\ u^7 - 2u^6 + 3u^5 - 2u^4 + 2u^3 - 2u^2 + u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^7 - 2u^6 + 2u^5 - 2u^2 + 2u \\ u^7 - 2u^6 + 3u^5 - 2u^4 + 2u^3 - 2u^2 + u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u^5 + 2u^4 - 2u^3 + 2u^2 - u + 2 \\ -u^5 - u^3 - u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u^7 + 2u^6 - 4u^5 + 4u^4 - 4u^3 + 4u^2 - 2u + 2 \\ u^8 - 3u^7 + 5u^6 - 6u^5 + 5u^4 - 6u^3 + 4u^2 - 2u + 1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u^8 + 2u^7 - 3u^6 + 2u^5 - u^4 + 2u^3 - 2u^2 + 2u - 1 \\ -u^8 + 2u^7 - 4u^6 + 4u^5 - 4u^4 + 4u^3 - 2u^2 + 2u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u^8 + 4u^7 - 7u^6 + 8u^5 - 5u^4 + 4u^3 - 4u^2 + 2u - 1 \\ -u^8 + 3u^7 - 5u^6 + 6u^5 - 5u^4 + 6u^3 - 4u^2 + 2u - 1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^3 \\ u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^5 + u \\ u^5 + u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 8u^8 - 24u^7 + 48u^6 - 56u^5 + 48u^4 - 32u^3 + 8u^2 - 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4, c_{10} c_{12}	$u^9 + 3u^8 + 8u^7 + 5u^6 + u^5 - 15u^4 - 20u^3 - 18u^2 - 7u - 1$
c_2, c_5, c_8 c_{11}	$u^9 + 3u^8 + 6u^7 + 7u^6 + 7u^5 + 7u^4 + 6u^3 + 4u^2 + u + 1$
c_3, c_6, c_7 c_9	$u^9 - u^8 - 2u^7 + 9u^6 + 3u^5 + 17u^4 + 6u^3 + 4u^2 - u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4, c_{10} c_{12}	$y^9 + 7y^8 + 36y^7 + 41y^6 - 75y^5 - 191y^4 - 144y^3 - 74y^2 + 13y - 1$
c_2, c_5, c_8 c_{11}	$y^9 + 3y^8 + 8y^7 + 5y^6 + y^5 - 15y^4 - 20y^3 - 18y^2 - 7y - 1$
c_3, c_6, c_7 c_9	$y^9 - 5y^8 + 28y^7 - 47y^6 - 315y^5 - 319y^4 - 124y^3 - 62y^2 - 7y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.461481 + 0.837544I$ $a = -2.45813 + 3.10206I$ $b = -0.213712 - 0.318134I$	$-0.13903 - 3.77297I$	$10.5564 + 43.0949I$
$u = -0.461481 - 0.837544I$ $a = -2.45813 - 3.10206I$ $b = -0.213712 + 0.318134I$	$-0.13903 + 3.77297I$	$10.5564 - 43.0949I$
$u = 0.736616 + 0.869782I$ $a = 0.787377 + 0.049850I$ $b = 0.073895 - 1.113510I$	$7.66695 + 5.59873I$	$4.90357 - 6.20498I$
$u = 0.736616 - 0.869782I$ $a = 0.787377 - 0.049850I$ $b = 0.073895 + 1.113510I$	$7.66695 - 5.59873I$	$4.90357 + 6.20498I$
$u = 1.15634$ $a = -0.427626$ $b = 2.18402$	-4.53774	-0.758800
$u = -0.102202 + 0.554352I$ $a = -0.092950 + 0.960014I$ $b = 0.439047 + 0.496789I$	$-0.75640 - 1.26978I$	$-6.33576 + 4.10506I$
$u = -0.102202 - 0.554352I$ $a = -0.092950 - 0.960014I$ $b = 0.439047 - 0.496789I$	$-0.75640 + 1.26978I$	$-6.33576 - 4.10506I$
$u = 0.74890 + 1.31534I$ $a = -1.52248 - 1.01662I$ $b = -1.89124 + 1.455525I$	$-11.9049 + 13.3161I$	$-3.74481 - 5.95110I$
$u = 0.74890 - 1.31534I$ $a = -1.52248 + 1.01662I$ $b = -1.89124 - 1.455525I$	$-11.9049 - 13.3161I$	$-3.74481 + 5.95110I$

II. $\boldsymbol{I_2^u = \langle 130u^{15} - 449u^{14} + \cdots + 1816b - 497,\ -1016u^{15} + 4012u^{14} + \cdots + 1816a - 9397,\ u^{16} - 4u^{15} + \cdots + 2u + 1\rangle}$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 0.559471u^{15} - 2.20925u^{14} + \cdots + 18.6828u + 5.17456 \\ -0.0715859u^{15} + 0.247247u^{14} + \cdots - 3.57654u + 0.273678 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 0.487885u^{15} - 1.96200u^{14} + \cdots + 15.1063u + 5.44824 \\ -0.0715859u^{15} + 0.247247u^{14} + \cdots - 3.57654u + 0.273678 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0.198789u^{15} - 0.833700u^{14} + \cdots + 12.0231u - 1.85518 \\ 0.106278u^{15} - 0.327643u^{14} + \cdots + 2.14152u + 0.192731 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 0.226322u^{15} - 0.976872u^{14} + \cdots + 14.0430u - 1.62390 \\ 0.0666300u^{15} - 0.271476u^{14} + \cdots + 2.10297u + 0.159692 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0.318282u^{15} - 1.18007u^{14} + \cdots + 4.34416u + 4.72357 \\ -0.0440529u^{15} + 0.229075u^{14} + \cdots - 3.93172u + 0.00495595 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -0.101872u^{15} + 0.529736u^{14} + \cdots - 12.1233u + 4.14427 \\ -0.0666300u^{15} + 0.271476u^{14} + \cdots - 2.10297u - 0.159692 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^3 \\ u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^5 + u \\ u^5 + u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{1189}{1816}u^{15} + \frac{4957}{1816}u^{14} + \cdots - \frac{61683}{1816}u - \frac{2179}{908}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4, c_{10} c_{12}	$u^{16} + 14u^{15} + \cdots + 88u + 1$
c_2, c_5, c_8 c_{11}	$u^{16} + 4u^{15} + \cdots - 2u + 1$
c_3, c_6, c_7 c_9	$u^{16} - 2u^{15} + \cdots - 128u + 256$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4, c_{10} c_{12}	$y^{16} - 18y^{15} + \cdots - 2472y + 1$
c_2, c_5, c_8 c_{11}	$y^{16} + 14y^{15} + \cdots + 88y + 1$
c_3, c_6, c_7 c_9	$y^{16} - 30y^{15} + \cdots + 540672y + 65536$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.363037 + 0.817564I$ $a = -0.689592 + 0.163353I$ $b = -0.232606 + 0.296439I$	$-0.31180 - 1.54577I$	$-2.35937 + 4.98634I$
$u = -0.363037 - 0.817564I$ $a = -0.689592 - 0.163353I$ $b = -0.232606 - 0.296439I$	$-0.31180 + 1.54577I$	$-2.35937 - 4.98634I$
$u = -0.479632 + 1.036130I$ $a = 1.70605 - 1.00375I$ $b = 0.266035 + 0.849001I$	-0.679161	$-6 - 0.644221 + 0.10I$
$u = -0.479632 - 1.036130I$ $a = 1.70605 + 1.00375I$ $b = 0.266035 - 0.849001I$	-0.679161	$-6 - 0.644221 + 0.10I$
$u = 0.735167 + 1.044790I$ $a = -0.615383 + 0.536646I$ $b = 0.72302 + 1.24109I$	7.14404	$-6 - 0.483738 + 0.10I$
$u = 0.735167 - 1.044790I$ $a = -0.615383 - 0.536646I$ $b = 0.72302 - 1.24109I$	7.14404	$-6 - 0.483738 + 0.10I$
$u = 1.264520 + 0.320297I$ $a = 0.438859 + 0.167437I$ $b = -2.28152 - 0.82827I$	$-8.81126 - 6.26912I$	$-2.84932 + 2.54582I$
$u = 1.264520 - 0.320297I$ $a = 0.438859 - 0.167437I$ $b = -2.28152 + 0.82827I$	$-8.81126 + 6.26912I$	$-2.84932 - 2.54582I$
$u = 0.61669 + 1.39802I$ $a = 1.61861 + 0.89803I$ $b = 2.33600 - 1.15509I$	$-8.81126 + 6.26912I$	$-2.84932 - 2.54582I$
$u = 0.61669 - 1.39802I$ $a = 1.61861 - 0.89803I$ $b = 2.33600 + 1.15509I$	$-8.81126 - 6.26912I$	$-2.84932 + 2.54582I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.14859 + 1.53192I$ $a = 0.687769 - 1.077410I$ $b = 1.29707 - 2.19154I$	-5.68794	$-5.90825 + 0.I$
$u = -0.14859 - 1.53192I$ $a = 0.687769 + 1.077410I$ $b = 1.29707 + 2.19154I$	-5.68794	$-5.90825 + 0.I$
$u = 0.41065 + 1.67828I$ $a = -1.61714 - 0.65436I$ $b = -3.40684 + 0.49631I$	-15.4295	$-5.54640 + 0.I$
$u = 0.41065 - 1.67828I$ $a = -1.61714 + 0.65436I$ $b = -3.40684 - 0.49631I$	-15.4295	$-5.54640 + 0.I$
$u = -0.035772 + 0.140099I$ $a = 4.97083 + 2.67001I$ $b = 0.298852 - 0.519319I$	$-0.31180 + 1.54577I$	$-2.35937 - 4.98634I$
$u = -0.035772 - 0.140099I$ $a = 4.97083 - 2.67001I$ $b = 0.298852 + 0.519319I$	$-0.31180 - 1.54577I$	$-2.35937 + 4.98634I$

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= u^3a - 3u^2a + u^3 - au - 3u^2 - a + u - 2$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.351808 + 0.720342I$ $a = -1.73811 + 1.68562I$ $b = 0$	$-0.211005 + 0.614778I$	$1.30302 + 4.44028I$
$u = -0.351808 + 0.720342I$ $a = 2.32885 + 0.66243I$ $b = 0$	$-0.21101 - 3.44499I$	$-3.64182 + 2.68374I$
$u = -0.351808 - 0.720342I$ $a = -1.73811 - 1.68562I$ $b = 0$	$-0.211005 - 0.614778I$	$1.30302 - 4.44028I$
$u = -0.351808 - 0.720342I$ $a = 2.32885 - 0.66243I$ $b = 0$	$-0.21101 + 3.44499I$	$-3.64182 - 2.68374I$
$u = 0.851808 + 0.911292I$ $a = 0.156525 - 0.382204I$ $b = 0$	$6.79074 + 1.13408I$	$-1.68800 - 4.61015I$
$u = 0.851808 + 0.911292I$ $a = 0.252736 + 0.326656I$ $b = 0$	$6.79074 + 5.19385I$	$-4.47320 - 2.03656I$
$u = 0.851808 - 0.911292I$ $a = 0.156525 + 0.382204I$ $b = 0$	$6.79074 - 1.13408I$	$-1.68800 + 4.61015I$
$u = 0.851808 - 0.911292I$ $a = 0.252736 - 0.326656I$ $b = 0$	$6.79074 - 5.19385I$	$-4.47320 + 2.03656I$

IV. $I_4^u =$
$\langle -a^3u-2a^3-3a^2-au+3b+a+u+5,\ a^4-a^3u+2a^3-a^2u-4a-u-4,\ u^2+u+1\rangle$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ u+1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} a \\ \frac{1}{3}a^3u + \frac{1}{3}au + \cdots - \frac{1}{3}a - \frac{5}{3} \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} \frac{1}{3}a^3u + \frac{1}{3}au + \cdots + \frac{2}{3}a - \frac{5}{3} \\ \frac{1}{3}a^3u + \frac{1}{3}au + \cdots - \frac{1}{3}a - \frac{5}{3} \end{pmatrix}$$
$$a_7 = \begin{pmatrix} \frac{1}{3}a^3u - \frac{2}{3}a^2u + \cdots - a - \frac{4}{3} \\ \frac{2}{3}a^3u + \frac{2}{3}a^2u + \cdots + \frac{4}{3}a^2 + \frac{1}{3} \end{pmatrix}$$
$$a_6 = \begin{pmatrix} \frac{1}{3}a^3u - \frac{2}{3}a^2u + \cdots - a - \frac{4}{3} \\ \frac{2}{3}a^3u + \frac{2}{3}a^2u + \cdots + \frac{4}{3}a^2 + \frac{1}{3} \end{pmatrix}$$
$$a_5 = \begin{pmatrix} \frac{2}{3}a^3u + \frac{4}{3}a^2u + \cdots - \frac{1}{3}a + 1 \\ -\frac{1}{3}a^3u - \frac{1}{3}a^2u + \cdots - \frac{2}{3}a^2 + \frac{4}{3} \end{pmatrix}$$
$$a_2 = \begin{pmatrix} a^3u + a^3 + 2a^2 - 2au - a - 3u - 3 \\ \frac{2}{3}a^3u + \frac{2}{3}a^2u + \cdots + \frac{4}{3}a^2 + \frac{1}{3} \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ u+1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{5}{3}a^3u - \frac{7}{3}a^3 - a^2u - 5a^2 + \frac{4}{3}au + \frac{8}{3}a + \frac{5}{3}u + \frac{13}{3}$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.500000 + 0.866025I$ $a = -0.715307 - 0.631577I$ $b = -0.395123 + 0.506844I$	$-0.211005 - 0.614778I$	$1.30302 - 4.44028I$
$u = -0.500000 + 0.866025I$ $a = \ \ 1.248740 + 0.225872I$ $b = -0.10488 + 1.55249I$	$6.79074 + 1.13408I$	$-1.68800 - 4.61015I$
$u = -0.500000 + 0.866025I$ $a = -1.44025 - 0.04422I$ $b = -0.10488 - 1.55249I$	$6.79074 - 5.19385I$	$-4.47320 + 2.03656I$
$u = -0.500000 + 0.866025I$ $a = -1.59319 + 1.31595I$ $b = -0.395123 - 0.506844I$	$-0.21101 - 3.44499I$	$-3.64182 + 2.68374I$
$u = -0.500000 - 0.866025I$ $a = -0.715307 + 0.631577I$ $b = -0.395123 - 0.506844I$	$-0.211005 + 0.614778I$	$1.30302 + 4.44028I$
$u = -0.500000 - 0.866025I$ $a = \ \ 1.248740 - 0.225872I$ $b = -0.10488 - 1.55249I$	$6.79074 - 1.13408I$	$-1.68800 + 4.61015I$
$u = -0.500000 - 0.866025I$ $a = -1.44025 + 0.04422I$ $b = -0.10488 + 1.55249I$	$6.79074 + 5.19385I$	$-4.47320 - 2.03656I$
$u = -0.500000 - 0.866025I$ $a = -1.59319 - 1.31595I$ $b = -0.395123 + 0.506844I$	$-0.21101 + 3.44499I$	$-3.64182 - 2.68374I$

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_4, c_{10}	$(u^2-u+1)^4(u^4-u^3+3u^2-2u+1)^2$ $\cdot(u^9+3u^8+8u^7+5u^6+u^5-15u^4-20u^3-18u^2-7u-1)$ $\cdot(u^{16}+14u^{15}+\cdots+88u+1)$
c_2, c_8	$(u^2+u+1)^4(u^4-u^3+u^2+1)^2$ $\cdot(u^9+3u^8+6u^7+7u^6+7u^5+7u^4+6u^3+4u^2+u+1)$ $\cdot(u^{16}+4u^{15}+\cdots-2u+1)$
c_3, c_6	$u^8(u^4-u^3+3u^2-2u+1)^2$ $\cdot(u^9-u^8-2u^7+9u^6+3u^5+17u^4+6u^3+4u^2-u+1)$ $\cdot(u^{16}-2u^{15}+\cdots-128u+256)$
c_5, c_{11}	$(u^2-u+1)^4(u^4+u^3+u^2+1)^2$ $\cdot(u^9+3u^8+6u^7+7u^6+7u^5+7u^4+6u^3+4u^2+u+1)$ $\cdot(u^{16}+4u^{15}+\cdots-2u+1)$
c_7, c_9	$u^8(u^4+u^3+3u^2+2u+1)^2$ $\cdot(u^9-u^8-2u^7+9u^6+3u^5+17u^4+6u^3+4u^2-u+1)$ $\cdot(u^{16}-2u^{15}+\cdots-128u+256)$
c_{12}	$(u^2+u+1)^4(u^4+u^3+3u^2+2u+1)^2$ $\cdot(u^9+3u^8+8u^7+5u^6+u^5-15u^4-20u^3-18u^2-7u-1)$ $\cdot(u^{16}+14u^{15}+\cdots+88u+1)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4, c_{10} c_{12}	$(y^2+y+1)^4(y^4+5y^3+7y^2+2y+1)^2$ $\cdot(y^9+7y^8+36y^7+41y^6-75y^5-191y^4-144y^3-74y^2+13y-1)$ $\cdot(y^{16}-18y^{15}+\cdots-2472y+1)$
c_2, c_5, c_8 c_{11}	$(y^2+y+1)^4(y^4+y^3+3y^2+2y+1)^2$ $\cdot(y^9+3y^8+8y^7+5y^6+y^5-15y^4-20y^3-18y^2-7y-1)$ $\cdot(y^{16}+14y^{15}+\cdots+88y+1)$
c_3, c_6, c_7 c_9	$y^8(y^4+5y^3+7y^2+2y+1)^2$ $\cdot(y^9-5y^8+28y^7-47y^6-315y^5-319y^4-124y^3-62y^2-7y-1)$ $\cdot(y^{16}-30y^{15}+\cdots+540672y+65536)$