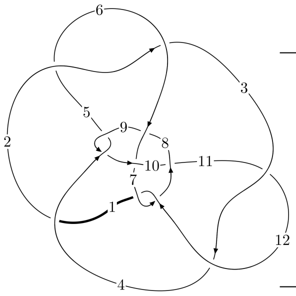
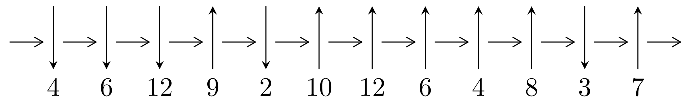
$12n_{0835}$ ($K12n_{0835}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle &-11962u^{12} - 32982u^{11} + \cdots + 180027b - 81583,\\
&- 51167u^{12} - 51141u^{11} + \cdots + 180027a + 431806,\\
&u^{13} + 2u^{12} + u^{11} - 12u^{10} - 10u^9 + 12u^8 + 39u^7 + u^6 - 48u^5 - 18u^4 + 21u^3 + 18u^2 + 3u - 1\rangle\\
I_2^u = \langle &b,\ a + u,\ u^3 - u^2 + 1\rangle\\
I_3^u = \langle &34532u^{11} - 8910u^{10} + \cdots + 191471b - 108223,\\
&126317u^{11} - 132222u^{10} + \cdots + 191471a - 196501,\\
&u^{12} - 2u^{11} + u^{10} - 16u^8 + 14u^7 + 29u^6 - 12u^5 + 4u^4 + 16u^3 - 5u^2 - 2u + 1\rangle\\
I_4^u = \langle &-188u^7 - 516u^6 - 1817u^5 - 4442u^4 - 8033u^3 - 9745u^2 + 4095b - 9869u - 4774,\\
&209u^7 + 138u^6 + 2216u^5 + 5156u^4 + 6164u^3 + 20875u^2 + 28665a + 9512u + 2737,\\
&u^8 + 2u^7 + 10u^6 + 24u^5 + 45u^4 + 76u^3 + 92u^2 + 70u + 49\rangle
\end{aligned}$$

* 4 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 36 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.

$\boldsymbol{I_1^u = \langle -1.20\times 10^4 u^{12} - 3.30\times 10^4 u^{11} + \cdots + 1.80\times 10^5 b - 8.16\times 10^4,\ -5.12\times 10^4 u^{12} - 5.11\times 10^4 u^{11} + \cdots + 1.80\times 10^5 a + 4.32\times 10^5,\ u^{13} + 2u^{12} + \cdots + 3u - 1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0.284218u^{12} + 0.284074u^{11} + \cdots - 3.97384u - 2.39856 \\ 0.0664456u^{12} + 0.183206u^{11} + \cdots + 0.314458u + 0.453171 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0.284218u^{12} + 0.284074u^{11} + \cdots - 3.97384u - 2.39856 \\ 0.0888700u^{12} + 0.283657u^{11} + \cdots + 1.45177u + 0.168808 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0.0237131u^{12} - 0.0981353u^{11} + \cdots - 2.62369u + 1.88978 \\ 0.105179u^{12} + 0.356713u^{11} + \cdots - 0.902920u + 0.234726 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -0.222456u^{12} - 0.0646236u^{11} + \cdots + 1.26037u - 1.50950 \\ 0.0856205u^{12} + 0.383542u^{11} + \cdots + 1.88790u + 0.0960689 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -0.509496u^{12} - 1.24145u^{11} + \cdots - 8.54774u - 0.268115 \\ u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 0.222456u^{12} + 0.0646236u^{11} + \cdots - 1.26037u + 1.50950 \\ -u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -0.889783u^{12} - 1.80328u^{11} + \cdots - 7.70561u - 0.0456598 \\ -u^3 + u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -0.506818u^{12} - 0.610925u^{11} + \cdots - 1.99085u - 1.22528 \\ 0.141223u^{12} + 0.341066u^{11} + \cdots + 1.53626u + 0.118493 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{133277}{60009}u^{12} + \frac{97412}{20003}u^{11} + \cdots + \frac{2500157}{60009}u + \frac{279872}{60009}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{13} + 2u^{12} + \cdots + 73u + 5$
c_2, c_3, c_5 c_{11}	$u^{13} + 2u^{12} + \cdots + 3u - 1$
c_4, c_7, c_9 c_{12}	$u^{13} + 10u^{11} + \cdots - 12u - 4$
c_6	$u^{13} - 3u^{12} + \cdots + 112u - 19$
c_8, c_{10}	$u^{13} + 2u^{12} + \cdots + 5u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{13} - 38y^{12} + \cdots + 7329y - 25$
c_2, c_3, c_5 c_{11}	$y^{13} - 2y^{12} + \cdots + 45y - 1$
c_4, c_7, c_9 c_{12}	$y^{13} + 20y^{12} + \cdots + 208y - 16$
c_6	$y^{13} + 7y^{12} + \cdots + 2094y - 361$
c_8, c_{10}	$y^{13} - 8y^{12} + \cdots + 7y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.122400 + 0.448785I$ $a = 0.292793 + 0.874754I$ $b = -0.109259 + 0.767460I$	$-6.52437 - 4.35431I$	$-2.69323 + 5.57961I$
$u = 1.122400 - 0.448785I$ $a = 0.292793 - 0.874754I$ $b = -0.109259 - 0.767460I$	$-6.52437 + 4.35431I$	$-2.69323 - 5.57961I$
$u = -0.749285 + 0.043693I$ $a = -0.509626 + 0.065149I$ $b = -0.738849 + 0.256795I$	$-1.302700 + 0.032683I$	$-7.31648 - 0.16173I$
$u = -0.749285 - 0.043693I$ $a = -0.509626 - 0.065149I$ $b = -0.738849 - 0.256795I$	$-1.302700 - 0.032683I$	$-7.31648 + 0.16173I$
$u = 1.265880 + 0.291483I$ $a = 0.18470 - 1.44719I$ $b = -0.35048 - 2.57213I$	$-14.5051 - 3.1980I$	$-6.84015 + 2.15870I$
$u = 1.265880 - 0.291483I$ $a = 0.18470 + 1.44719I$ $b = -0.35048 + 2.57213I$	$-14.5051 + 3.1980I$	$-6.84015 - 2.15870I$
$u = -0.438416 + 0.418996I$ $a = 1.83391 - 1.67711I$ $b = 0.675501 + 0.073236I$	$-8.52319 + 2.72289I$	$-7.74001 - 0.35750I$
$u = -0.438416 - 0.418996I$ $a = 1.83391 + 1.67711I$ $b = 0.675501 - 0.073236I$	$-8.52319 - 2.72289I$	$-7.74001 + 0.35750I$
$u = -0.86722 + 1.24197I$ $a = 0.518889 - 0.563420I$ $b = 0.04501 - 1.85139I$	$4.79571 + 2.82647I$	$-1.37286 - 2.37043I$
$u = -0.86722 - 1.24197I$ $a = 0.518889 + 0.563420I$ $b = 0.04501 + 1.85139I$	$4.79571 - 2.82647I$	$-1.37286 + 2.37043I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \quad 0.158979$ $a = -2.81443$ $b = \quad 0.486240$	0.852515	11.9090
$u = -1.41284 + 1.83586I$ $a = -0.413448 + 0.805929I$ $b = -0.26505 + 2.03068I$	$0.95941 + 10.95210I$	$-1.49177 - 4.40872I$
$u = -1.41284 - 1.83586I$ $a = -0.413448 - 0.805929I$ $b = -0.26505 - 2.03068I$	$0.95941 - 10.95210I$	$-1.49177 + 4.40872I$

II. $I_2^u = \langle b,\ a+u,\ u^3-u^2+1\rangle$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 6u^2-4u-3$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.877439 + 0.744862I$ $a = -0.877439 - 0.744862I$ $b = 0$	$-8.03068 - 3.77083I$	$-5.21928 + 4.86340I$
$u = 0.877439 - 0.744862I$ $a = -0.877439 + 0.744862I$ $b = 0$	$-8.03068 + 3.77083I$	$-5.21928 - 4.86340I$
$u = -0.754878$ $a = 0.754878$ $b = 0$	-0.387983	3.43860

III. $\boldsymbol{I^u_3 = \langle 34532u^{11} - 8910u^{10} + \cdots + 191471b - 108223,\ 1.26 \times 10^5u^{11} - 1.32 \times 10^5u^{10} + \cdots + 1.91 \times 10^5a - 1.97 \times 10^5,\ u^{12} - 2u^{11} + \cdots - 2u + 1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}1\\u^2\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-0.659719u^{11} + 0.690559u^{10} + \cdots - 6.35697u + 1.02627\\-0.180351u^{11} + 0.0465345u^{10} + \cdots - 1.55862u + 0.565219\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-0.659719u^{11} + 0.690559u^{10} + \cdots - 6.35697u + 1.02627\\-0.460054u^{11} + 0.535402u^{10} + \cdots - 2.15666u + 1.19410\end{pmatrix}$$
$$a_1 = \begin{pmatrix}1.65524u^{11} - 2.78398u^{10} + \cdots - 1.00772u - 6.09660\\0.224859u^{11} - 0.296390u^{10} + \cdots - 0.503115u - 1.64700\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}u\\u\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}-1.52166u^{11} + 2.61616u^{10} + \cdots + 1.10685u + 4.97611\\-0.129111u^{11} + 0.261251u^{10} + \cdots + 1.26558u + 1.19082\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-1.16060u^{11} + 2.08065u^{10} + \cdots + 1.32344u + 4.67364\\-0.250257u^{11} + 0.475545u^{10} + \cdots - 0.181777u + 1.44895\end{pmatrix}$$
$$a_2 = \begin{pmatrix}1.52166u^{11} - 2.61616u^{10} + \cdots - 1.10685u - 4.97611\\0.112215u^{11} - 0.111991u^{10} + \cdots - 0.568222u - 1.54765\end{pmatrix}$$
$$a_5 = \begin{pmatrix}0.943589u^{11} - 1.35098u^{10} + \cdots + 0.790851u - 1.13909\\0.512187u^{11} - 0.959487u^{10} + \cdots + 0.496691u - 1.18240\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-1.37117u^{11} + 2.29907u^{10} + \cdots + 0.508615u + 4.21244\\-0.170658u^{11} + 0.355380u^{10} + \cdots + 1.08285u + 1.20695\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{8084}{11263}u^{11} + \frac{12088}{11263}u^{10} - \frac{3464}{11263}u^9 + \frac{5702}{11263}u^8 + \frac{118154}{11263}u^7 - \frac{36546}{11263}u^6 - \frac{248588}{11263}u^5 - \frac{96058}{11263}u^4 - \frac{30924}{11263}u^3 - \frac{100428}{11263}u^2 - \frac{7174}{1609}u + \frac{29716}{11263}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u^6 - 7u^5 + 14u^4 + u^3 - 28u^2 + 31u - 11)^2$
c_2, c_{11}	$u^{12} + 2u^{11} + \cdots + 2u + 1$
c_3, c_5	$u^{12} - 2u^{11} + \cdots - 2u + 1$
c_4, c_7	$u^{12} - 2u^{11} + \cdots + 8u + 4$
c_6	$(u^3 - u^2 + u + 1)^4$
c_8, c_{10}	$u^{12} - 2u^{11} + \cdots - 40u + 29$
c_9, c_{12}	$u^{12} + 2u^{11} + \cdots - 8u + 4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$(y^6 - 21y^5 + 154y^4 - 373y^3 + 414y^2 - 345y + 121)^2$
c_2, c_3, c_5 c_{11}	$y^{12} - 2y^{11} + \cdots - 14y + 1$
c_4, c_7, c_9 c_{12}	$y^{12} + 12y^{11} + \cdots - 256y + 16$
c_6	$(y^3 + y^2 + 3y - 1)^4$
c_8, c_{10}	$y^{12} + 4y^{11} + \cdots - 5892y + 841$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.911570$ $a = 0.298859$ $b = -0.487547$	-0.365976	3.08740
$u = 0.347067 + 0.717063I$ $a = 1.20188 + 1.50579I$ $b = 0.17433 + 2.36142I$	$-13.14100 - 3.17729I$	$0.45631 + 2.23029I$
$u = 0.347067 - 0.717063I$ $a = 1.20188 - 1.50579I$ $b = 0.17433 - 2.36142I$	$-13.14100 + 3.17729I$	$0.45631 - 2.23029I$
$u = -1.218800 + 0.206735I$ $a = -0.505212 + 0.220973I$ $b = 0.190428 + 0.825741I$	$-5.24529 + 3.17729I$	$0.45631 - 2.23029I$
$u = -1.218800 - 0.206735I$ $a = -0.505212 - 0.220973I$ $b = 0.190428 - 0.825741I$	$-5.24529 - 3.17729I$	$0.45631 + 2.23029I$
$u = -0.446425$ $a = 1.52685$ $b = 0.487547$	-0.365976	3.08740
$u = 0.341414 + 0.167973I$ $a = -2.13354 - 3.14045I$ $b = -0.190428 - 0.825741I$	$-5.24529 + 3.17729I$	$0.45631 - 2.23029I$
$u = 0.341414 - 0.167973I$ $a = -2.13354 + 3.14045I$ $b = -0.190428 + 0.825741I$	$-5.24529 - 3.17729I$	$0.45631 + 2.23029I$
$u = 1.94996 + 0.26394I$ $a = 0.121333 - 1.079840I$ $b = -0.17433 - 2.36142I$	$-13.14100 - 3.17729I$	$0.45631 + 2.23029I$
$u = 1.94996 - 0.26394I$ $a = 0.121333 + 1.079840I$ $b = -0.17433 + 2.36142I$	$-13.14100 + 3.17729I$	$0.45631 - 2.23029I$

	Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.25935+2.11008I$		
$a=$	$0.402681-0.542364I$	7.52971	$3.08738+0.I$
$b=$	$-1.68959I$		
$u=$	$0.25935-2.11008I$		
$a=$	$0.402681+0.542364I$	7.52971	$3.08738+0.I$
$b=$	$1.68959I$		

IV. $I_4^u = \langle -188u^7 - 516u^6 + \cdots + 4095b - 4774,\ 209u^7 + 138u^6 + \cdots + 28665a + 2737,\ u^8 + 2u^7 + \cdots + 70u + 49\rangle$

(i) Arc colorings

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

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

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

$$a_8 = \begin{pmatrix} -0.00729112u^7 - 0.00481423u^6 + \cdots - 0.331833u - 0.0954823 \\ 0.0459096u^7 + 0.126007u^6 + \cdots + 2.41001u + 1.16581 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.00729112u^7 - 0.00481423u^6 + \cdots - 0.331833u - 0.0954823 \\ 0.0219780u^7 + 0.0234432u^6 + \cdots + 2.08352u + 0.687179 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.0163265u^7 - 0.00544218u^6 + \cdots + 0.673469u + 0.304762 \\ 0.100611u^7 + 0.141392u^6 + \cdots + 2.81343u + 1.52650 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.0176173u^7 + 0.0135008u^6 + \cdots + 0.273295u - 0.644933 \\ 0.00366300u^7 + 0.115018u^6 + \cdots + 2.68059u + 1.22564 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.0278039u^7 - 0.0736787u^6 + \cdots - 1.81169u - 1.14383 \\ 0.0798535u^7 + 0.134066u^6 + \cdots + 2.35678u - 0.174359 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.0176173u^7 - 0.0135008u^6 + \cdots - 0.273295u + 0.644933 \\ 0.104029u^7 + 0.0131868u^6 + \cdots + 0.288645u - 1.40513 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.0431188u^7 - 0.0986918u^6 + \cdots + 0.194244u - 0.0923077 \\ 0.196337u^7 + 0.351648u^6 + \cdots - 1.28059u - 3.35897 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.0561312u^7 - 0.106646u^6 + \cdots - 1.74917u - 0.805617 \\ 0.189988u^7 + 0.361172u^6 + \cdots + 4.37973u - 0.114530 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u^4 - 2u^3 + u^2 + 5)^2$
c_2, c_3, c_5 c_{11}	$u^8 + 2u^7 + 10u^6 + 24u^5 + 45u^4 + 76u^3 + 92u^2 + 70u + 49$
c_4, c_7, c_9 c_{12}	$u^8 - 2u^7 - 4u^5 + 10u^4 + 4u^3 + 12u^2 + 4$
c_6	$(u^2 + 1)^4$
c_8, c_{10}	$u^8 + 2u^7 - 4u^6 - 18u^5 + 10u^4 + 98u^3 + 156u^2 + 118u + 41$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$(y^4 - 2y^3 + 11y^2 + 10y + 25)^2$
c_2, c_3, c_5 c_{11}	$y^8 + 16y^7 + \cdots + 4116y + 2401$
c_4, c_7, c_9 c_{12}	$y^8 - 4y^7 + 4y^6 + 24y^5 + 140y^4 + 224y^3 + 224y^2 + 96y + 16$
c_6	$(y + 1)^8$
c_8, c_{10}	$y^8 - 12y^7 + \cdots - 1132y + 1681$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.250028 + 1.085420I$ $a = 0.548797 + 0.000925I$ $b = 0.618034I$	-2.30291	-2.00000
$u = -0.250028 - 1.085420I$ $a = 0.548797 - 0.000925I$ $b = -0.618034I$	-2.30291	-2.00000
$u = -1.36801 + 0.53261I$ $a = -0.779945 + 0.583385I$ $b = 0.618034I$	-2.30291	-2.00000
$u = -1.36801 - 0.53261I$ $a = -0.779945 - 0.583385I$ $b = -0.618034I$	-2.30291	-2.00000
$u = 0.11336 + 1.75843I$ $a = 0.543770 - 0.231510I$ $b = -1.61803I$	5.59278	-2.00000
$u = 0.11336 - 1.75843I$ $a = 0.543770 + 0.231510I$ $b = 1.61803I$	5.59278	-2.00000
$u = 0.50467 + 2.37647I$ $a = -0.455479 + 0.781371I$ $b = 1.61803I$	5.59278	-2.00000
$u = 0.50467 - 2.37647I$ $a = -0.455479 - 0.781371I$ $b = -1.61803I$	5.59278	-2.00000

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^3+u^2-1)(u^4-2u^3+u^2+5)^2$ $\cdot(u^6-7u^5+14u^4+u^3-28u^2+31u-11)^2$ $\cdot(u^{13}+2u^{12}+\cdots+73u+5)$
c_2, c_{11}	$(u^3+u^2-1)(u^8+2u^7+\cdots+70u+49)$ $\cdot(u^{12}+2u^{11}+\cdots+2u+1)(u^{13}+2u^{12}+\cdots+3u-1)$
c_3, c_5	$(u^3-u^2+1)(u^8+2u^7+\cdots+70u+49)$ $\cdot(u^{12}-2u^{11}+\cdots-2u+1)(u^{13}+2u^{12}+\cdots+3u-1)$
c_4, c_7	$(u^3+u^2+2u+1)(u^8-2u^7-4u^5+10u^4+4u^3+12u^2+4)$ $\cdot(u^{12}-2u^{11}+\cdots+8u+4)(u^{13}+10u^{11}+\cdots-12u-4)$
c_6	$(u^2+1)^4(u^3-u^2+u+1)^4(u^3+2u^2+3u+1)$ $\cdot(u^{13}-3u^{12}+\cdots+112u-19)$
c_8, c_{10}	(u^3-u^2+2u-1) $\cdot(u^8+2u^7-4u^6-18u^5+10u^4+98u^3+156u^2+118u+41)$ $\cdot(u^{12}-2u^{11}+\cdots-40u+29)(u^{13}+2u^{12}+\cdots+5u-1)$
c_9, c_{12}	$(u^3-u^2+2u-1)(u^8-2u^7-4u^5+10u^4+4u^3+12u^2+4)$ $\cdot(u^{12}+2u^{11}+\cdots-8u+4)(u^{13}+10u^{11}+\cdots-12u-4)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^3 - y^2 + 2y - 1)(y^4 - 2y^3 + 11y^2 + 10y + 25)^2$ $\cdot (y^6 - 21y^5 + 154y^4 - 373y^3 + 414y^2 - 345y + 121)^2$ $\cdot (y^{13} - 38y^{12} + \cdots + 7329y - 25)$
c_2, c_3, c_5 c_{11}	$(y^3 - y^2 + 2y - 1)(y^8 + 16y^7 + \cdots + 4116y + 2401)$ $\cdot (y^{12} - 2y^{11} + \cdots - 14y + 1)(y^{13} - 2y^{12} + \cdots + 45y - 1)$
c_4, c_7, c_9 c_{12}	$(y^3 + 3y^2 + 2y - 1)$ $\cdot (y^8 - 4y^7 + 4y^6 + 24y^5 + 140y^4 + 224y^3 + 224y^2 + 96y + 16)$ $\cdot (y^{12} + 12y^{11} + \cdots - 256y + 16)(y^{13} + 20y^{12} + \cdots + 208y - 16)$
c_6	$(y+1)^8(y^3 + y^2 + 3y - 1)^4(y^3 + 2y^2 + 5y - 1)$ $\cdot (y^{13} + 7y^{12} + \cdots + 2094y - 361)$
c_8, c_{10}	$(y^3 + 3y^2 + 2y - 1)(y^8 - 12y^7 + \cdots - 1132y + 1681)$ $\cdot (y^{12} + 4y^{11} + \cdots - 5892y + 841)(y^{13} - 8y^{12} + \cdots + 7y - 1)$