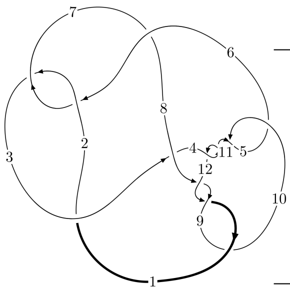
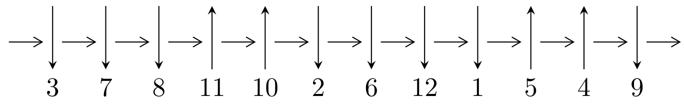
$12a_{0548}$ ($K12a_{0548}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -1.58134 \times 10^{20} u^{62} + 3.74205 \times 10^{20} u^{61} + \cdots + 2.91973 \times 10^{21} b - 2.96150 \times 10^{21},$$
$$-1.26309 \times 10^{22} u^{62} + 1.69902 \times 10^{22} u^{61} + \cdots + 8.75918 \times 10^{21} a - 5.81824 \times 10^{22},\ u^{63} - 2u^{62} + \cdots + 5u -$$
$$I_2^u = \langle -u^2 a - au - u^2 + b - u - 1,\ a^2 + 2au + 3u^2 + 2a + 2u + 1,\ u^3 + u^2 - 1\rangle$$
$$I_3^u = \langle b,\ a - u + 1,\ u^3 - u^2 + 1\rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 72 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.

$\boldsymbol{I^u_1 = \langle -1.58\times10^{20}u^{62}+3.74\times10^{20}u^{61}+\cdots+2.92\times10^{21}b-2.96\times10^{21},\ -1.26\times 10^{22}u^{62}+1.70\times10^{22}u^{61}+\cdots+8.76\times10^{21}a-5.82\times10^{22},\ u^{63}-2u^{62}+\cdots+5u-3\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u \\ -u^3+u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^2+1 \\ u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^7-2u^5+2u^3-2u \\ -u^7+u^5-2u^3+u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^3 \\ u^5-u^3+u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1.44202u^{62}-1.93971u^{61}+\cdots+0.661158u+6.64244 \\ 0.0541605u^{62}-0.128165u^{61}+\cdots-0.441955u+1.01431 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -0.185702u^{62}+0.0752726u^{61}+\cdots-2.14838u+0.547461 \\ 0.719076u^{62}-0.662451u^{61}+\cdots-0.943387u+1.09817 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0.903442u^{62}-1.53591u^{61}+\cdots+1.76710u+4.49679 \\ -0.804672u^{62}+1.13906u^{61}+\cdots+1.28977u-3.03093 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1.18523u^{62}-1.75085u^{61}+\cdots+1.47609u+5.39500 \\ -0.563042u^{62}+0.514494u^{61}+\cdots+0.795969u-0.856839 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0.905223u^{62}-1.45026u^{61}+\cdots+0.887446u+4.18778 \\ -0.569552u^{62}+0.745346u^{61}+\cdots+1.44587u-2.47512 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{712622541967817552415 5}{14598635547160097174 29}u^{62} - \frac{8012124561236711506684}{1459863554716009717429}u^{61}+\cdots-\frac{1444836087383290891669 0}{1459863554716009717429}u+\frac{13917590278743478982007}{1459863554716009717429}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{63} + 22u^{62} + \cdots + 79u + 9$
c_2, c_6	$u^{63} - 2u^{62} + \cdots + 5u - 3$
c_3	$u^{63} + 2u^{62} + \cdots - 2119u - 507$
c_4, c_5, c_{10} c_{11}	$u^{63} - u^{62} + \cdots - 32u - 8$
c_8, c_9, c_{12}	$u^{63} + 4u^{62} + \cdots + 12u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{63} + 42y^{62} + \cdots - 4037y - 81$
c_2, c_6	$y^{63} - 22y^{62} + \cdots + 79y - 9$
c_3	$y^{63} - 30y^{62} + \cdots + 10968607y - 257049$
c_4, c_5, c_{10} c_{11}	$y^{63} + 77y^{62} + \cdots - 384y - 64$
c_8, c_9, c_{12}	$y^{63} - 64y^{62} + \cdots - 154y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.610001 + 0.784154I$ $a = -0.583306 - 0.639284I$ $b = 0.10442 + 1.60088I$	$-6.01435 + 3.73785I$	$-6.21764 - 2.33056I$
$u = 0.610001 - 0.784154I$ $a = -0.583306 + 0.639284I$ $b = 0.10442 - 1.60088I$	$-6.01435 - 3.73785I$	$-6.21764 + 2.33056I$
$u = -0.691211 + 0.731938I$ $a = -0.984563 + 0.325099I$ $b = 0.423366 - 0.660007I$	$1.70446 - 1.85626I$	$-3.28574 + 4.17386I$
$u = -0.691211 - 0.731938I$ $a = -0.984563 - 0.325099I$ $b = 0.423366 + 0.660007I$	$1.70446 + 1.85626I$	$-3.28574 - 4.17386I$
$u = 0.984690 + 0.048731I$ $a = 0.390182 + 1.262910I$ $b = -0.214172 + 0.744109I$	$-3.63603 - 1.98289I$	$-12.79221 + 5.30533I$
$u = 0.984690 - 0.048731I$ $a = 0.390182 - 1.262910I$ $b = -0.214172 - 0.744109I$	$-3.63603 + 1.98289I$	$-12.79221 - 5.30533I$
$u = -0.617889 + 0.811854I$ $a = 1.21265 - 0.77110I$ $b = -0.569733 + 0.792616I$	$-4.01161 - 5.24201I$	$-7.19231 + 3.97955I$
$u = -0.617889 - 0.811854I$ $a = 1.21265 + 0.77110I$ $b = -0.569733 - 0.792616I$	$-4.01161 + 5.24201I$	$-7.19231 - 3.97955I$
$u = -0.800531 + 0.652431I$ $a = 0.356242 + 0.321397I$ $b = -0.225169 + 0.600163I$	$0.12008 + 2.15047I$	$-8.15527 - 1.56284I$
$u = -0.800531 - 0.652431I$ $a = 0.356242 - 0.321397I$ $b = -0.225169 - 0.600163I$	$0.12008 - 2.15047I$	$-8.15527 + 1.56284I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.809657+0.514097I$ $a=\ 2.00737+1.05562I$ $b=-0.143570-1.274290I$	$-6.22882+2.00042I$	$-11.28661-3.42546I$
$u=-0.809657-0.514097I$ $a=\ 2.00737-1.05562I$ $b=-0.143570+1.274290I$	$-6.22882-2.00042I$	$-11.28661+3.42546I$
$u=\ 0.785085+0.714910I$ $a=-1.190430+0.036937I$ $b=\ 0.504608-0.222274I$	$2.98803-1.39468I$	0
$u=\ 0.785085-0.714910I$ $a=-1.190430-0.036937I$ $b=\ 0.504608+0.222274I$	$2.98803+1.39468I$	0
$u=\ 0.600448+0.711632I$ $a=\ 1.70429+0.06119I$ $b=-0.710743+0.153011I$	$-2.09343+0.92231I$	$-4.75363+0.62378I$
$u=\ 0.600448-0.711632I$ $a=\ 1.70429-0.06119I$ $b=-0.710743-0.153011I$	$-2.09343-0.92231I$	$-4.75363-0.62378I$
$u=\ 0.625396+0.875190I$ $a=\ 0.658938+1.166250I$ $b=-0.16972-1.64610I$	$-12.3245+8.0761I$	0
$u=\ 0.625396-0.875190I$ $a=\ 0.658938-1.166250I$ $b=-0.16972+1.64610I$	$-12.3245-8.0761I$	0
$u=-1.07798$ $a=-0.363979$ $b=\ 0.794949$	-7.41534	-11.6850
$u=-1.095210+0.048926I$ $a=\ 0.55949-2.15472I$ $b=-0.04899-1.63658I$	$-11.94220+2.91582I$	$-13.41371+0.I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.095210-0.048926I$ $a=0.55949+2.15472I$ $b=-0.04899+1.63658I$	$-11.94220-2.91582I$	$-13.41371+0.I$
$u=1.104710+0.076472I$ $a=-0.598094-0.752936I$ $b=0.537709-0.922877I$	$-10.23730-4.46631I$	0
$u=1.104710-0.076472I$ $a=-0.598094+0.752936I$ $b=0.537709+0.922877I$	$-10.23730+4.46631I$	0
$u=-0.924553+0.652788I$ $a=-1.041360+0.503496I$ $b=0.120631+0.731259I$	$-0.27540+2.92512I$	0
$u=-0.924553-0.652788I$ $a=-1.041360-0.503496I$ $b=0.120631-0.731259I$	$-0.27540-2.92512I$	0
$u=-0.857291$ $a=0.117983$ $b=-0.362513$	-1.52387	-4.27340
$u=-0.869676+0.750012I$ $a=-1.07018-1.26107I$ $b=0.01356+1.42114I$	$-1.90031+2.83940I$	0
$u=-0.869676-0.750012I$ $a=-1.07018+1.26107I$ $b=0.01356-1.42114I$	$-1.90031-2.83940I$	0
$u=0.275496+0.805252I$ $a=0.721010-1.151510I$ $b=-0.10473+1.66585I$	$-14.3129-4.3810I$	$-9.57041+2.65515I$
$u=0.275496-0.805252I$ $a=0.721010+1.151510I$ $b=-0.10473-1.66585I$	$-14.3129+4.3810I$	$-9.57041-2.65515I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.926875 + 0.695254I$ $a = 0.771343 + 0.660731I$ $b = -0.511668 - 0.144834I$	$2.55508 - 4.00808I$	0
$u = 0.926875 - 0.695254I$ $a = 0.771343 - 0.660731I$ $b = -0.511668 + 0.144834I$	$2.55508 + 4.00808I$	0
$u = -1.157940 + 0.127426I$ $a = -1.00083 + 1.33298I$ $b = 0.14561 + 1.68788I$	$-19.2613 + 7.1339I$	0
$u = -1.157940 - 0.127426I$ $a = -1.00083 - 1.33298I$ $b = 0.14561 - 1.68788I$	$-19.2613 - 7.1339I$	0
$u = -1.012450 + 0.583469I$ $a = 0.326595 + 0.686319I$ $b = 0.395006 - 1.064730I$	$-7.17296 + 2.09708I$	0
$u = -1.012450 - 0.583469I$ $a = 0.326595 - 0.686319I$ $b = 0.395006 + 1.064730I$	$-7.17296 - 2.09708I$	0
$u = 0.881182 + 0.793135I$ $a = 0.465108 - 1.062750I$ $b = -0.041752 + 0.558255I$	$0.64338 - 2.97205I$	0
$u = 0.881182 - 0.793135I$ $a = 0.465108 + 1.062750I$ $b = -0.041752 - 0.558255I$	$0.64338 + 2.97205I$	0
$u = 1.017390 + 0.618478I$ $a = -1.87775 - 0.74485I$ $b = 0.03214 - 1.62578I$	$-8.45630 - 3.51087I$	0
$u = 1.017390 - 0.618478I$ $a = -1.87775 + 0.74485I$ $b = 0.03214 + 1.62578I$	$-8.45630 + 3.51087I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.985609 + 0.683922I$ $a = 1.70144 - 0.50584I$ $b = -0.424758 - 0.732772I$	$0.82025 + 7.27682I$	0
$u = -0.985609 - 0.683922I$ $a = 1.70144 + 0.50584I$ $b = -0.424758 + 0.732772I$	$0.82025 - 7.27682I$	0
$u = 1.092490 + 0.516377I$ $a = 1.131500 + 0.316734I$ $b = 0.08034 + 1.69877I$	$-16.8215 - 0.3894I$	0
$u = 1.092490 - 0.516377I$ $a = 1.131500 - 0.316734I$ $b = 0.08034 - 1.69877I$	$-16.8215 + 0.3894I$	0
$u = 1.018900 + 0.657892I$ $a = -1.055480 - 0.878323I$ $b = 0.792174 + 0.156872I$	$-3.31368 - 6.20587I$	0
$u = 1.018900 - 0.657892I$ $a = -1.055480 + 0.878323I$ $b = 0.792174 - 0.156872I$	$-3.31368 + 6.20587I$	0
$u = 0.683095 + 0.384601I$ $a = -0.398095 - 0.889020I$ $b = -0.04461 - 1.50376I$	$-6.96067 - 1.23913I$	$-9.15719 + 5.40608I$
$u = 0.683095 - 0.384601I$ $a = -0.398095 + 0.889020I$ $b = -0.04461 + 1.50376I$	$-6.96067 + 1.23913I$	$-9.15719 - 5.40608I$
$u = 0.464167 + 0.618799I$ $a = -0.455453 + 0.164648I$ $b = -0.00190 - 1.57015I$	$-7.04509 - 1.37731I$	$-7.22554 + 3.34935I$
$u = 0.464167 - 0.618799I$ $a = -0.455453 - 0.164648I$ $b = -0.00190 + 1.57015I$	$-7.04509 + 1.37731I$	$-7.22554 - 3.34935I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.899452+0.851726I$ $a=\ \ 0.97396+1.50330I$ $b=-0.01020-1.60392I$	$-6.99761+3.15141I$	0
$u=-0.899452-0.851726I$ $a=\ \ 0.97396-1.50330I$ $b=-0.01020+1.60392I$	$-6.99761-3.15141I$	0
$u=\ \ 1.035350+0.682439I$ $a=\ \ 2.42596+0.27809I$ $b=-0.11553+1.62619I$	$-7.28355-9.28433I$	0
$u=\ \ 1.035350-0.682439I$ $a=\ \ 2.42596-0.27809I$ $b=-0.11553-1.62619I$	$-7.28355+9.28433I$	0
$u=-0.350286+0.666278I$ $a=\ \ 1.17109+0.95740I$ $b=-0.371640-0.892558I$	$-5.46380+2.51444I$	$-8.36255-3.99940I$
$u=-0.350286-0.666278I$ $a=\ \ 1.17109-0.95740I$ $b=-0.371640+0.892558I$	$-5.46380-2.51444I$	$-8.36255+3.99940I$
$u=-1.041560+0.694554I$ $a=-1.90739+0.36362I$ $b=\ \ 0.617502+0.812473I$	$-5.28758+10.90360I$	0
$u=-1.041560-0.694554I$ $a=-1.90739-0.36362I$ $b=\ \ 0.617502-0.812473I$	$-5.28758-10.90360I$	0
$u=\ \ 1.063920+0.720846I$ $a=-2.43149+0.20835I$ $b=\ \ 0.18673-1.65389I$	$-13.6698-14.0027I$	0
$u=\ \ 1.063920-0.720846I$ $a=-2.43149-0.20835I$ $b=\ \ 0.18673+1.65389I$	$-13.6698+14.0027I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.514170$ $a = 2.57325$ $b = -0.355506$	-2.33892	2.37070
$u = -0.202617 + 0.344744I$ $a = -0.979704 - 0.005239I$ $b = 0.216636 + 0.455539I$	$-0.134368 + 0.901804I$	$-2.96446 - 7.62176I$
$u = -0.202617 - 0.344744I$ $a = -0.979704 + 0.005239I$ $b = 0.216636 - 0.455539I$	$-0.134368 - 0.901804I$	$-2.96446 + 7.62176I$

II.

$$\boldsymbol{I_2^u = \langle -u^2a - au - u^2 + b - u - 1,\ a^2 + 2au + 3u^2 + 2a + 2u + 1,\ u^3 + u^2 - 1\rangle}$$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4u - 12$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.877439+0.744862I$ $a=\ \ 0.930832+0.496024I$ $b=\ -1.414210I$	$-3.55561+2.82812I$	$-8.49024-2.97945I$
$u=-0.877439+0.744862I$ $a=-1.17595-1.98575I$ $b=\ 1.414210I$	$-3.55561+2.82812I$	$-8.49024-2.97945I$
$u=-0.877439-0.744862I$ $a=\ \ 0.930832-0.496024I$ $b=\ 1.414210I$	$-3.55561-2.82812I$	$-8.49024+2.97945I$
$u=-0.877439-0.744862I$ $a=-1.17595+1.98575I$ $b=\ -1.414210I$	$-3.55561-2.82812I$	$-8.49024+2.97945I$
$u=\ \ 0.754878$ $a=-1.75488+1.06756I$ $b=\ 1.414210I$	-7.69319	-15.0200
$u=\ \ 0.754878$ $a=-1.75488-1.06756I$ $b=\ -1.414210I$	-7.69319	-15.0200

III. $I_3^u = \langle b,\ a - u + 1,\ u^3 - u^2 + 1\rangle$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4u^2 + 10u - 8$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.877439 + 0.744862I$ $a = -0.122561 + 0.744862I$ $b = 0$	$1.37919 - 2.82812I$	$-0.08593 + 2.22005I$
$u = 0.877439 - 0.744862I$ $a = -0.122561 - 0.744862I$ $b = 0$	$1.37919 + 2.82812I$	$-0.08593 - 2.22005I$
$u = -0.754878$ $a = -1.75488$ $b = 0$	-2.75839	-17.8280

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^3-u^2+2u-1)^3)(u^{63}+22u^{62}+\cdots+79u+9)$
c_2	$((u^3-u^2+1)^2)(u^3+u^2-1)(u^{63}-2u^{62}+\cdots+5u-3)$
c_3	$(u^3-u^2+2u-1)(u^3+u^2+2u+1)^2(u^{63}+2u^{62}+\cdots-2119u-507)$
c_4, c_5, c_{10} c_{11}	$u^3(u^2+2)^3(u^{63}-u^{62}+\cdots-32u-8)$
c_6	$(u^3-u^2+1)(u^3+u^2-1)^2(u^{63}-2u^{62}+\cdots+5u-3)$
c_7	$((u^3+u^2+2u+1)^3)(u^{63}+22u^{62}+\cdots+79u+9)$
c_8, c_9	$((u-1)^3)(u+1)^6(u^{63}+4u^{62}+\cdots+12u-1)$
c_{12}	$((u-1)^6)(u+1)^3(u^{63}+4u^{62}+\cdots+12u-1)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7	$((y^3+3y^2+2y-1)^3)(y^{63}+42y^{62}+\cdots-4037y-81)$
c_2, c_6	$((y^3-y^2+2y-1)^3)(y^{63}-22y^{62}+\cdots+79y-9)$
c_3	$((y^3+3y^2+2y-1)^3)(y^{63}-30y^{62}+\cdots+1.09686\times10^7y-257049)$
c_4, c_5, c_{10} c_{11}	$y^3(y+2)^6(y^{63}+77y^{62}+\cdots-384y-64)$
c_8, c_9, c_{12}	$((y-1)^9)(y^{63}-64y^{62}+\cdots-154y-1)$