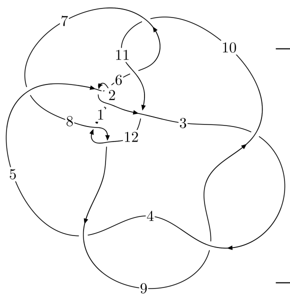
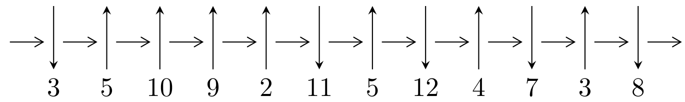
$12n_{0547}$ ($K12n_{0547}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -u^{18} + u^{17} + \cdots + b - 1,\ u^{21} - 3u^{20} + \cdots + 2a - 5,\ u^{22} - 3u^{21} + \cdots - 7u + 2\rangle$$

$$\begin{aligned} I_2^u = \langle &u^9 a - u^{10} + \cdots + b - 1, \\ &2u^{10} + u^9 + 11u^8 + 4u^7 + 20u^6 + 4u^5 - u^3 a + 12u^4 - 2u^3 + a^2 - 2au + 3u^2 - 3u + 5, \\ &u^{11} + u^{10} + 6u^9 + 5u^8 + 12u^7 + 8u^6 + 8u^5 + 3u^4 + u^3 - u^2 + 2u + 1\rangle \end{aligned}$$

$$\begin{aligned} I_3^u = \langle &-u^9 + u^8 - 4u^7 + 3u^6 - 5u^5 - u^3 - 4u^2 + b + 1,\ -u^8 - 4u^6 - 5u^4 - 2u^2 + a - 1, \\ &u^{10} + 5u^8 + 8u^6 + 3u^4 - u^2 + 1\rangle \end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 54 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.

$$I^u_1 = \langle -u^{18}+u^{17}+\cdots+b-1,\ u^{21}-3u^{20}+\cdots+2a-5,\ u^{22}-3u^{21}+\cdots-7u+2\rangle$$

(i) Arc colorings

$$a_5 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_9 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}1\\u^2\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}u\\u^3+u\end{pmatrix}$$
$$a_3 = \begin{pmatrix}u^2+1\\u^4+2u^2\end{pmatrix}$$
$$a_2 = \begin{pmatrix}-u^4-u^2+1\\u^4+2u^2\end{pmatrix}$$
$$a_1 = \begin{pmatrix}u^{10}+5u^8+8u^6+3u^4-u^2+1\\u^{12}+6u^{10}+12u^8+8u^6+u^4+2u^2\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}-\frac{1}{2}u^{21}+\frac{3}{2}u^{20}+\cdots-4u+\frac{5}{2}\\u^{18}-u^{17}+\cdots-u+1\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-\frac{1}{2}u^{21}+\frac{1}{2}u^{20}+\cdots-u-\frac{1}{2}\\-u^{21}+2u^{20}+\cdots-3u+1\end{pmatrix}$$
$$a_7 = \begin{pmatrix}\frac{1}{2}u^{21}-\frac{3}{2}u^{20}+\cdots+2u-\frac{3}{2}\\-u^{21}+2u^{20}+\cdots-3u+1\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}\frac{1}{2}u^{21}-\frac{3}{2}u^{20}+\cdots+4u-\frac{1}{2}\\-u^{18}+u^{17}+\cdots+2u-1\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-u^8-3u^6-u^4+2u^2-1\\u^8+4u^6+4u^4\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= -4u^{21}+10u^{20}-54u^{19}+108u^{18}-298u^{17}+482u^{16}-868u^{15}+1122u^{14}-1404u^{13}+1378u^{12}-1148u^{11}+700u^{10}-226u^9-136u^8+252u^7-198u^6+68u^5+44u^4-74u^3+56u^2-34u+14$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{22} + 21u^{21} + \cdots + 2639u + 576$
c_2, c_5	$u^{22} + 3u^{21} + \cdots + 55u + 24$
c_3, c_4, c_9	$u^{22} - 3u^{21} + \cdots - 7u + 2$
c_6, c_8, c_{10} c_{12}	$u^{22} + 2u^{20} + \cdots + u + 1$
c_7, c_{11}	$u^{22} + 4u^{21} + \cdots - 111u + 79$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{22} - 39y^{21} + \cdots - 969313y + 331776$
c_2, c_5	$y^{22} + 21y^{21} + \cdots + 2639y + 576$
c_3, c_4, c_9	$y^{22} + 21y^{21} + \cdots + 7y + 4$
c_6, c_8, c_{10} c_{12}	$y^{22} + 4y^{21} + \cdots + 11y + 1$
c_7, c_{11}	$y^{22} + 36y^{21} + \cdots + 103651y + 6241$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.010224 + 1.078500I$ $a = 0.551130 + 0.398952I$ $b = -1.328730 - 0.305483I$	$-1.00862 + 1.46670I$	$0.87483 - 4.74244I$
$u = 0.010224 - 1.078500I$ $a = 0.551130 - 0.398952I$ $b = -1.328730 + 0.305483I$	$-1.00862 - 1.46670I$	$0.87483 + 4.74244I$
$u = 0.645447 + 0.555123I$ $a = -1.67610 - 0.24813I$ $b = -0.075830 - 0.925613I$	$-7.27791 - 5.01880I$	$0.42259 + 1.50295I$
$u = 0.645447 - 0.555123I$ $a = -1.67610 + 0.24813I$ $b = -0.075830 + 0.925613I$	$-7.27791 + 5.01880I$	$0.42259 - 1.50295I$
$u = 0.721588 + 0.445135I$ $a = 0.20635 - 1.70531I$ $b = 0.57553 - 1.93709I$	$-6.88868 + 9.58963I$	$1.41263 - 7.09128I$
$u = 0.721588 - 0.445135I$ $a = 0.20635 + 1.70531I$ $b = 0.57553 + 1.93709I$	$-6.88868 - 9.58963I$	$1.41263 + 7.09128I$
$u = -0.674386 + 0.184008I$ $a = -0.568999 - 1.273370I$ $b = -0.64562 - 1.59538I$	$1.10963 - 4.53074I$	$4.38661 + 7.87378I$
$u = -0.674386 - 0.184008I$ $a = -0.568999 + 1.273370I$ $b = -0.64562 + 1.59538I$	$1.10963 + 4.53074I$	$4.38661 - 7.87378I$
$u = -0.157344 + 0.613642I$ $a = 0.998496 + 0.716026I$ $b = -0.337730 - 0.250909I$	$-0.85003 + 1.30702I$	$-1.78276 - 3.10332I$
$u = -0.157344 - 0.613642I$ $a = 0.998496 - 0.716026I$ $b = -0.337730 + 0.250909I$	$-0.85003 - 1.30702I$	$-1.78276 + 3.10332I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.261209 + 1.342740I$ $a = -0.524408 + 0.595373I$ $b = 2.12772 + 1.40190I$	$-3.69180 - 7.92861I$	$-0.13268 + 8.49431I$
$u = -0.261209 - 1.342740I$ $a = -0.524408 - 0.595373I$ $b = 2.12772 - 1.40190I$	$-3.69180 + 7.92861I$	$-0.13268 - 8.49431I$
$u = 0.587900 + 0.230513I$ $a = 0.564070 + 0.683652I$ $b = 0.173424 + 0.964850I$	$1.14825 + 1.09478I$	$3.74609 - 1.33769I$
$u = 0.587900 - 0.230513I$ $a = 0.564070 - 0.683652I$ $b = 0.173424 - 0.964850I$	$1.14825 - 1.09478I$	$3.74609 + 1.33769I$
$u = 0.22679 + 1.39926I$ $a = -0.435721 + 0.005462I$ $b = 0.901316 - 0.971219I$	$-4.08990 + 4.07620I$	$-2.65002 - 1.63109I$
$u = 0.22679 - 1.39926I$ $a = -0.435721 - 0.005462I$ $b = 0.901316 + 0.971219I$	$-4.08990 - 4.07620I$	$-2.65002 + 1.63109I$
$u = -0.06984 + 1.45133I$ $a = -0.328600 - 0.625258I$ $b = -0.008270 - 0.590017I$	$-7.21159 + 0.38553I$	$-5.41030 - 1.50832I$
$u = -0.06984 - 1.45133I$ $a = -0.328600 + 0.625258I$ $b = -0.008270 + 0.590017I$	$-7.21159 - 0.38553I$	$-5.41030 + 1.50832I$
$u = 0.26357 + 1.48721I$ $a = 0.667824 + 0.729458I$ $b = -1.59693 + 2.46692I$	$-13.1389 + 13.1870I$	$-1.85056 - 6.97436I$
$u = 0.26357 - 1.48721I$ $a = 0.667824 - 0.729458I$ $b = -1.59693 - 2.46692I$	$-13.1389 - 13.1870I$	$-1.85056 + 6.97436I$

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.20725+1.51244I$		
$a=$	$0.795966-0.560386I$	$-14.0282-1.9396I$	$-3.01643+1.43017I$
$b=$	$0.215117-0.125032I$		
$u=$	$0.20725-1.51244I$		
$a=$	$0.795966+0.560386I$	$-14.0282+1.9396I$	$-3.01643-1.43017I$
$b=$	$0.215117+0.125032I$		

II.

$$\boldsymbol{I^u_2 = \langle u^9a - u^{10} + \cdots + b - 1,\ 2u^{10} + u^9 + \cdots + a^2 + 5,\ u^{11} + u^{10} + \cdots + 2u + 1\rangle}$$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

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

$$a_{10} = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u^4 - u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^{10} + 5u^8 + 8u^6 + 3u^4 - u^2 + 1 \\ u^{10} + u^9 + 5u^8 + 4u^7 + 8u^6 + 5u^5 + 3u^4 + 2u^3 - u^2 + u + 1 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} a \\ -u^9a + u^{10} + \cdots - au + 1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u^{10} + u^9 + \cdots - u + 2 \\ -u^9a - u^8a + \cdots - a + 1 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^9a + u^{10} + \cdots + a + 1 \\ -u^9a - u^8a + \cdots - a + 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^9a - u^{10} + \cdots + a - 1 \\ -u^9a + u^{10} + \cdots + u + 1 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^8 - 3u^6 - u^4 + 2u^2 - 1 \\ u^8 + 4u^6 + 4u^4 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes

$= 4u^{10} + 4u^9 + 24u^8 + 16u^7 + 44u^6 + 16u^5 + 20u^4 - 4u^3 - 4u^2 - 4u + 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u^{11}+15u^{10}+\cdots+6u-1)^2$
c_2, c_5	$(u^{11}+u^{10}+8u^9+7u^8+22u^7+16u^6+24u^5+13u^4+9u^3+3u^2-1)^2$
c_3, c_4, c_9	$(u^{11}+u^{10}+6u^9+5u^8+12u^7+8u^6+8u^5+3u^4+u^3-u^2+2u+1)^2$
c_6, c_8, c_{10} c_{12}	$u^{22}+u^{21}+\cdots+20u^3+1$
c_7, c_{11}	$u^{22}+u^{21}+\cdots+3324u+5777$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$(y^{11} - 37y^{10} + \cdots + 70y - 1)^2$
c_2, c_5	$(y^{11} + 15y^{10} + \cdots + 6y - 1)^2$
c_3, c_4, c_9	$(y^{11} + 11y^{10} + \cdots + 6y - 1)^2$
c_6, c_8, c_{10} c_{12}	$y^{22} + 7y^{21} + \cdots + 84y^2 + 1$
c_7, c_{11}	$y^{22} + 11y^{21} + \cdots + 10487680y + 33373729$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.691368 + 0.499908I$ $a = -1.59688 + 0.02132I$ $b = -0.638758 + 0.617238I$	$-7.95553 - 2.30219I$	$-0.32022 + 2.86330I$
$u = -0.691368 + 0.499908I$ $a = 0.40201 + 1.57042I$ $b = 0.73852 + 1.27823I$	$-7.95553 - 2.30219I$	$-0.32022 + 2.86330I$
$u = -0.691368 - 0.499908I$ $a = -1.59688 - 0.02132I$ $b = -0.638758 - 0.617238I$	$-7.95553 + 2.30219I$	$-0.32022 - 2.86330I$
$u = -0.691368 - 0.499908I$ $a = 0.40201 - 1.57042I$ $b = 0.73852 - 1.27823I$	$-7.95553 + 2.30219I$	$-0.32022 - 2.86330I$
$u = -0.081634 + 1.321480I$ $a = 0.925705 + 0.046443I$ $b = -2.41105 - 0.00160I$	$-0.18031 - 1.62554I$	$1.42199 + 3.91435I$
$u = -0.081634 + 1.321480I$ $a = -0.661845 + 0.315235I$ $b = 0.12364 + 2.65077I$	$-0.18031 - 1.62554I$	$1.42199 + 3.91435I$
$u = -0.081634 - 1.321480I$ $a = 0.925705 - 0.046443I$ $b = -2.41105 + 0.00160I$	$-0.18031 + 1.62554I$	$1.42199 - 3.91435I$
$u = -0.081634 - 1.321480I$ $a = -0.661845 - 0.315235I$ $b = 0.12364 - 2.65077I$	$-0.18031 + 1.62554I$	$1.42199 - 3.91435I$
$u = 0.525209 + 0.369457I$ $a = 0.073929 - 0.488809I$ $b = -0.422255 + 0.248502I$	$1.26759 + 1.65848I$	$0.54419 - 4.72916I$
$u = 0.525209 + 0.369457I$ $a = 0.90630 + 1.48303I$ $b = -0.128441 + 1.396340I$	$1.26759 + 1.65848I$	$0.54419 - 4.72916I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.525209 - 0.369457I$ $a = 0.073929 + 0.488809I$ $b = -0.422255 - 0.248502I$	$1.26759 - 1.65848I$	$0.54419 + 4.72916I$
$u = 0.525209 - 0.369457I$ $a = 0.90630 - 1.48303I$ $b = -0.128441 - 1.396340I$	$1.26759 - 1.65848I$	$0.54419 + 4.72916I$
$u = 0.18554 + 1.42716I$ $a = -0.752259 - 0.261413I$ $b = 1.03684 - 1.52064I$	$-4.47712 + 4.26374I$	$-2.95029 - 4.02329I$
$u = 0.18554 + 1.42716I$ $a = -0.003996 + 0.356321I$ $b = 0.624973 + 0.515135I$	$-4.47712 + 4.26374I$	$-2.95029 - 4.02329I$
$u = 0.18554 - 1.42716I$ $a = -0.752259 + 0.261413I$ $b = 1.03684 + 1.52064I$	$-4.47712 - 4.26374I$	$-2.95029 + 4.02329I$
$u = 0.18554 - 1.42716I$ $a = -0.003996 - 0.356321I$ $b = 0.624973 - 0.515135I$	$-4.47712 - 4.26374I$	$-2.95029 + 4.02329I$
$u = -0.23988 + 1.50376I$ $a = 0.504184 - 0.804775I$ $b = -1.21612 - 1.84606I$	$-14.4695 - 5.6984I$	$-3.54476 + 2.83577I$
$u = -0.23988 + 1.50376I$ $a = 0.629578 + 0.671456I$ $b = 0.849788 + 0.004381I$	$-14.4695 - 5.6984I$	$-3.54476 + 2.83577I$
$u = -0.23988 - 1.50376I$ $a = 0.504184 + 0.804775I$ $b = -1.21612 + 1.84606I$	$-14.4695 + 5.6984I$	$-3.54476 - 2.83577I$
$u = -0.23988 - 1.50376I$ $a = 0.629578 - 0.671456I$ $b = 0.849788 - 0.004381I$	$-14.4695 + 5.6984I$	$-3.54476 - 2.83577I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.395736$ $a=-0.42672+2.63281I$ $b=\ \ 0.94286+1.41200I$	3.92670	11.6980
$u=-0.395736$ $a=-0.42672-2.63281I$ $b=\ \ 0.94286-1.41200I$	3.92670	11.6980

III. $\boldsymbol{I_3^u =}$
$\boldsymbol{\langle -u^9+u^8+\cdots+b+1,\ -u^8-4u^6-5u^4-2u^2+a-1,\ u^{10}+5u^8+8u^6+3u^4-u^2+1\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u \\ u^3+u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^2+1 \\ u^4+2u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u^4-u^2+1 \\ u^4+2u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0 \\ -u^8-3u^6-u^4+2u^2-1 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u^8+4u^6+5u^4+2u^2+1 \\ u^9-u^8+4u^7-3u^6+5u^5+u^3+4u^2-1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^9+5u^7+8u^5+3u^3-u \\ -u^8+u^7-4u^6+3u^5-4u^4+2u^3-u-1 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^9+u^8+4u^7+4u^6+5u^5+4u^4+u^3+1 \\ -u^8+u^7-4u^6+3u^5-4u^4+2u^3-u-1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^9+u^8-4u^7+4u^6-5u^5+4u^4-u^3+u+1 \\ u^9+4u^7+5u^5+u^4+2u^3+2u^2+u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u^8+3u^6+u^4-2u^2+1 \\ -u^8-4u^6-4u^4 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4u^6-12u^4-8u^2+8$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u^5 - 3u^4 + 4u^3 - u^2 - u + 1)^2$
c_2	$(u^5 - u^4 + 2u^3 - u^2 + u - 1)^2$
c_3, c_4, c_9	$u^{10} + 5u^8 + 8u^6 + 3u^4 - u^2 + 1$
c_5	$(u^5 + u^4 + 2u^3 + u^2 + u + 1)^2$
c_6, c_8, c_{10} c_{12}	$(u^2 + 1)^5$
c_7	$u^{10} - 4u^9 + \cdots - 74u + 29$
c_{11}	$u^{10} + 4u^9 + \cdots + 74u + 29$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$(y^5 - y^4 + 8y^3 - 3y^2 + 3y - 1)^2$
c_2, c_5	$(y^5 + 3y^4 + 4y^3 + y^2 - y - 1)^2$
c_3, c_4, c_9	$(y^5 + 5y^4 + 8y^3 + 3y^2 - y + 1)^2$
c_6, c_8, c_{10} c_{12}	$(y + 1)^{10}$
c_7, c_{11}	$y^{10} - 6y^9 + \cdots - 546y + 841$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \quad 1.217740I$ $a = \quad 0.821196$ $b = -1.98456 + 1.58802I$	0.888787	6.51890
$u = \quad -1.217740I$ $a = \quad 0.821196$ $b = -1.98456 - 1.58802I$	0.888787	6.51890
$u = \quad 0.549911 + 0.309916I$ $a = \quad 0.77780 + 1.38013I$ $b = -0.52856 + 1.81098I$	$2.96077 + 1.53058I$	$7.48489 - 4.43065I$
$u = \quad 0.549911 - 0.309916I$ $a = \quad 0.77780 - 1.38013I$ $b = -0.52856 - 1.81098I$	$2.96077 - 1.53058I$	$7.48489 + 4.43065I$
$u = -0.549911 + 0.309916I$ $a = \quad 0.77780 - 1.38013I$ $b = \quad 0.586946 - 0.933592I$	$2.96077 - 1.53058I$	$7.48489 + 4.43065I$
$u = -0.549911 - 0.309916I$ $a = \quad 0.77780 + 1.38013I$ $b = \quad 0.586946 + 0.933592I$	$2.96077 + 1.53058I$	$7.48489 - 4.43065I$
$u = -0.21917 + 1.41878I$ $a = -0.688402 + 0.106340I$ $b = -0.13073 + 1.65202I$	$-2.58269 - 4.40083I$	$3.25569 + 3.49859I$
$u = -0.21917 - 1.41878I$ $a = -0.688402 - 0.106340I$ $b = -0.13073 - 1.65202I$	$-2.58269 + 4.40083I$	$3.25569 - 3.49859I$
$u = \quad 0.21917 + 1.41878I$ $a = -0.688402 - 0.106340I$ $b = \quad 2.05690 - 1.18661I$	$-2.58269 + 4.40083I$	$3.25569 - 3.49859I$
$u = \quad 0.21917 - 1.41878I$ $a = -0.688402 + 0.106340I$ $b = \quad 2.05690 + 1.18661I$	$-2.58269 - 4.40083I$	$3.25569 + 3.49859I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^5-3u^4+4u^3-u^2-u+1)^2)(u^{11}+15u^{10}+\cdots+6u-1)^2$ $\cdot(u^{22}+21u^{21}+\cdots+2639u+576)$
c_2	$(u^5-u^4+2u^3-u^2+u-1)^2$ $\cdot(u^{11}+u^{10}+8u^9+7u^8+22u^7+16u^6+24u^5+13u^4+9u^3+3u^2-1)^2$ $\cdot(u^{22}+3u^{21}+\cdots+55u+24)$
c_3,c_4,c_9	$(u^{10}+5u^8+8u^6+3u^4-u^2+1)$ $\cdot(u^{11}+u^{10}+6u^9+5u^8+12u^7+8u^6+8u^5+3u^4+u^3-u^2+2u+1)^2$ $\cdot(u^{22}-3u^{21}+\cdots-7u+2)$
c_5	$(u^5+u^4+2u^3+u^2+u+1)^2$ $\cdot(u^{11}+u^{10}+8u^9+7u^8+22u^7+16u^6+24u^5+13u^4+9u^3+3u^2-1)^2$ $\cdot(u^{22}+3u^{21}+\cdots+55u+24)$
c_6,c_8,c_{10} c_{12}	$((u^2+1)^5)(u^{22}+2u^{20}+\cdots+u+1)(u^{22}+u^{21}+\cdots+20u^3+1)$
c_7	$(u^{10}-4u^9+\cdots-74u+29)(u^{22}+u^{21}+\cdots+3324u+5777)$ $\cdot(u^{22}+4u^{21}+\cdots-111u+79)$
c_{11}	$(u^{10}+4u^9+\cdots+74u+29)(u^{22}+u^{21}+\cdots+3324u+5777)$ $\cdot(u^{22}+4u^{21}+\cdots-111u+79)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^5 - y^4 + 8y^3 - 3y^2 + 3y - 1)^2)(y^{11} - 37y^{10} + \cdots + 70y - 1)^2$ $\cdot (y^{22} - 39y^{21} + \cdots - 969313y + 331776)$
c_2, c_5	$((y^5 + 3y^4 + 4y^3 + y^2 - y - 1)^2)(y^{11} + 15y^{10} + \cdots + 6y - 1)^2$ $\cdot (y^{22} + 21y^{21} + \cdots + 2639y + 576)$
c_3, c_4, c_9	$((y^5 + 5y^4 + 8y^3 + 3y^2 - y + 1)^2)(y^{11} + 11y^{10} + \cdots + 6y - 1)^2$ $\cdot (y^{22} + 21y^{21} + \cdots + 7y + 4)$
c_6, c_8, c_{10} c_{12}	$((y + 1)^{10})(y^{22} + 4y^{21} + \cdots + 11y + 1)(y^{22} + 7y^{21} + \cdots + 84y^2 + 1)$
c_7, c_{11}	$(y^{10} - 6y^9 + \cdots - 546y + 841)$ $\cdot (y^{22} + 11y^{21} + \cdots + 10487680y + 33373729)$ $\cdot (y^{22} + 36y^{21} + \cdots + 103651y + 6241)$