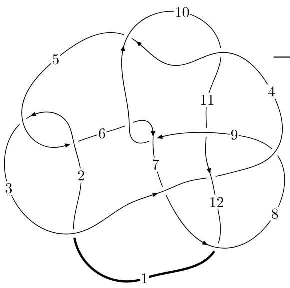
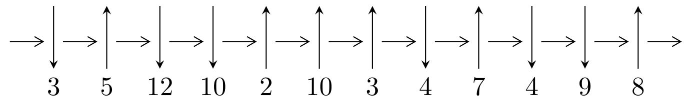
$12n_{0356}$ ($K12n_{0356}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I^u_1 = \langle 7.95983 \times 10^{44} u^{41} - 1.50155 \times 10^{45} u^{40} + \cdots + 1.14909 \times 10^{45} b - 1.16386 \times 10^{46},$$
$$6.40800 \times 10^{45} u^{41} - 3.37761 \times 10^{44} u^{40} + \cdots + 3.44727 \times 10^{45} a - 2.38350 \times 10^{46},\ u^{42} + 6u^{40} + \cdots - 4u + 3$$
$$I^u_2 = \langle b - 1,\ a + 1,\ u^2 + u + 1 \rangle$$
$$I^u_3 = \langle -u^9 - 3u^7 - 5u^5 - u^4 - 10u^3 - u^2 + b - 6u,$$
$$-126u^9 - 4u^8 - 339u^7 - 31u^6 - 519u^5 - 187u^4 - 1073u^3 - 183u^2 + 85a - 564u - 111,$$
$$u^{10} + 3u^8 + 5u^6 + u^5 + 10u^4 + u^3 + 7u^2 + 1 \rangle$$

* 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.
$\boldsymbol{I_1^u = \langle 7.96\times 10^{44}u^{41} - 1.50\times 10^{45}u^{40} + \cdots + 1.15\times 10^{45}b - 1.16\times 10^{46},\ 6.41\times 10^{45}u^{41} - 3.38\times 10^{44}u^{40} + \cdots + 3.45\times 10^{45}a - 2.38\times 10^{46},\ u^{42} + 6u^{40} + \cdots - 4u + 3\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_3 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-1.85886u^{41} + 0.0979791u^{40} + \cdots - 27.6246u + 6.91416\\ -0.692707u^{41} + 1.30673u^{40} + \cdots - 11.4825u + 10.1285\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-2.55157u^{41} + 1.40471u^{40} + \cdots - 39.1071u + 17.0427\\ -0.692707u^{41} + 1.30673u^{40} + \cdots - 11.4825u + 10.1285\end{pmatrix}$$
$$a_1 = \begin{pmatrix}0.832926u^{41} - 0.346814u^{40} + \cdots + 10.5076u + 6.09743\\ -0.155548u^{41} + 0.571430u^{40} + \cdots - 4.77363u + 6.26450\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-2.86555u^{41} + 0.463510u^{40} + \cdots - 40.8981u + 11.1283\\ -0.435280u^{41} + 1.07479u^{40} + \cdots - 8.65966u + 7.30494\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}0.0541962u^{41} - 0.173110u^{40} + \cdots + 5.05694u + 7.82335\\ 0.934277u^{41} - 0.745135u^{40} + \cdots + 12.2243u - 7.99042\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}0.988473u^{41} - 0.918245u^{40} + \cdots + 17.2813u - 0.167070\\ 0.934277u^{41} - 0.745135u^{40} + \cdots + 12.2243u - 7.99042\end{pmatrix}$$
$$a_5 = \begin{pmatrix}2.78167u^{41} - 0.519929u^{40} + \cdots + 10.7131u - 6.92196\\ 0.763818u^{41} - 0.555089u^{40} + \cdots + 9.41655u - 4.17445\end{pmatrix}$$
$$a_2 = \begin{pmatrix}1.26821u^{41} - 1.42161u^{40} + \cdots + 19.1673u - 1.20751\\ 0.308673u^{41} + 0.214746u^{40} + \cdots + 0.831385u + 3.04011\end{pmatrix}$$
$$a_6 = \begin{pmatrix}4.26347u^{41} - 3.57388u^{40} + \cdots + 63.8196u - 31.1222\\ 2.53749u^{41} - 2.17142u^{40} + \cdots + 37.6429u - 19.2215\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 11.6391u^{41} - 2.74474u^{40} + \cdots + 169.526u - 46.9504$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{42} + 12u^{41} + \cdots + 230u + 9$
c_2, c_5	$u^{42} + 6u^{40} + \cdots + 4u + 3$
c_3	$u^{42} + 6u^{40} + \cdots - 4u + 3$
c_4, c_{10}	$u^{42} + 14u^{40} + \cdots - 792u + 172$
c_6, c_9	$u^{42} + 3u^{41} + \cdots + 1471u + 111$
c_7	$u^{42} + u^{41} + \cdots + 47u + 99$
c_8	$u^{42} + u^{41} + \cdots - 131u + 111$
c_{11}	$u^{42} - 3u^{41} + \cdots - 1471u + 111$
c_{12}	$u^{42} + 14u^{40} + \cdots + 792u + 172$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{42} + 44y^{41} + \cdots + 254y + 81$
c_2, c_3, c_5	$y^{42} + 12y^{41} + \cdots + 230y + 9$
c_4, c_{10}, c_{12}	$y^{42} + 28y^{41} + \cdots + 8448y + 29584$
c_6, c_9, c_{11}	$y^{42} - 27y^{41} + \cdots + 55937y + 12321$
c_7	$y^{42} + 21y^{41} + \cdots + 383891y + 9801$
c_8	$y^{42} - 29y^{41} + \cdots + 95171y + 12321$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.544383 + 0.863324I$ $a = -0.51188 + 1.32823I$ $b = -0.497540 + 0.008587I$	$2.42641 - 0.18863I$	$3.24251 - 0.93757I$
$u = -0.544383 - 0.863324I$ $a = -0.51188 - 1.32823I$ $b = -0.497540 - 0.008587I$	$2.42641 + 0.18863I$	$3.24251 + 0.93757I$
$u = -0.687915 + 0.682286I$ $a = 1.102770 - 0.213792I$ $b = -1.75734 + 0.28348I$	$1.70620 + 4.86322I$	$2.22045 - 7.40969I$
$u = -0.687915 - 0.682286I$ $a = 1.102770 + 0.213792I$ $b = -1.75734 - 0.28348I$	$1.70620 - 4.86322I$	$2.22045 + 7.40969I$
$u = 0.750317 + 0.769897I$ $a = 1.340840 - 0.353204I$ $b = -1.37469 - 1.08554I$	$-3.29363 - 5.13657I$	$-2.33265 + 8.72582I$
$u = 0.750317 - 0.769897I$ $a = 1.340840 + 0.353204I$ $b = -1.37469 + 1.08554I$	$-3.29363 + 5.13657I$	$-2.33265 - 8.72582I$
$u = -0.932214 + 0.569996I$ $a = -1.037210 - 0.591475I$ $b = 0.860453 - 0.527673I$	$-3.75518 + 1.50447I$	$-4.91299 + 0.56780I$
$u = -0.932214 - 0.569996I$ $a = -1.037210 + 0.591475I$ $b = 0.860453 + 0.527673I$	$-3.75518 - 1.50447I$	$-4.91299 - 0.56780I$
$u = -0.144161 + 0.853584I$ $a = -1.010980 - 0.281506I$ $b = 0.414095 + 0.757109I$	$0.95566 + 2.59332I$	$5.16066 - 5.00921I$
$u = -0.144161 - 0.853584I$ $a = -1.010980 + 0.281506I$ $b = 0.414095 - 0.757109I$	$0.95566 - 2.59332I$	$5.16066 + 5.00921I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.547178 + 0.657889I$ $a = 1.21496 + 1.75367I$ $b = 0.157769 - 0.348092I$	$3.29363 - 5.13657I$	$2.33265 + 8.72582I$
$u = 0.547178 - 0.657889I$ $a = 1.21496 - 1.75367I$ $b = 0.157769 + 0.348092I$	$3.29363 + 5.13657I$	$2.33265 - 8.72582I$
$u = 0.402523 + 0.735634I$ $a = -1.213870 - 0.554358I$ $b = 1.46993 + 0.46496I$	$3.75518 + 1.50447I$	$4.91299 + 0.56780I$
$u = 0.402523 - 0.735634I$ $a = -1.213870 + 0.554358I$ $b = 1.46993 - 0.46496I$	$3.75518 - 1.50447I$	$4.91299 - 0.56780I$
$u = 0.618713 + 1.043480I$ $a = 0.248973 - 0.791074I$ $b = -1.309910 + 0.260236I$	$-2.42641 - 0.18863I$	$-3.24251 - 0.93757I$
$u = 0.618713 - 1.043480I$ $a = 0.248973 + 0.791074I$ $b = -1.309910 - 0.260236I$	$-2.42641 + 0.18863I$	$-3.24251 + 0.93757I$
$u = 0.831964 + 0.909186I$ $a = 1.28883 - 0.94404I$ $b = -1.80526 - 0.30079I$	$-5.39497 - 3.10535I$	$-10.05216 + 0.I$
$u = 0.831964 - 0.909186I$ $a = 1.28883 + 0.94404I$ $b = -1.80526 + 0.30079I$	$-5.39497 + 3.10535I$	$-10.05216 + 0.I$
$u = -1.042840 + 0.697476I$ $a = 0.494099 + 0.769179I$ $b = -1.144430 - 0.016547I$	$- 0.206317I$	0
$u = -1.042840 - 0.697476I$ $a = 0.494099 - 0.769179I$ $b = -1.144430 + 0.016547I$	$0.206317I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.033933 + 0.665190I$ $a = -0.60540 + 2.41235I$ $b = -0.141969 + 1.363470I$	$5.39497 + 3.10535I$	$10.05216 - 0.84923I$
$u = 0.033933 - 0.665190I$ $a = -0.60540 - 2.41235I$ $b = -0.141969 - 1.363470I$	$5.39497 - 3.10535I$	$10.05216 + 0.84923I$
$u = 1.122240 + 0.748923I$ $a = -0.720260 + 0.883365I$ $b = 1.377720 - 0.195992I$	$-1.23530 + 7.11550I$	0
$u = 1.122240 - 0.748923I$ $a = -0.720260 - 0.883365I$ $b = 1.377720 + 0.195992I$	$-1.23530 - 7.11550I$	0
$u = 0.984944 + 0.968446I$ $a = -0.621355 + 0.424387I$ $b = 1.41482 + 0.57562I$	$-8.49949 - 3.58541I$	0
$u = 0.984944 - 0.968446I$ $a = -0.621355 - 0.424387I$ $b = 1.41482 - 0.57562I$	$-8.49949 + 3.58541I$	0
$u = -0.360297 + 0.499277I$ $a = -0.145220 + 0.355309I$ $b = -0.293588 + 0.434809I$	$1.15367I$	$0. - 5.79196I$
$u = -0.360297 - 0.499277I$ $a = -0.145220 - 0.355309I$ $b = -0.293588 - 0.434809I$	$-1.15367I$	$0. + 5.79196I$
$u = 0.129278 + 0.581586I$ $a = 0.221386 + 0.378940I$ $b = 0.01026 - 2.64515I$	$5.05194 - 3.77462I$	$11.6382 + 10.3724I$
$u = 0.129278 - 0.581586I$ $a = 0.221386 - 0.378940I$ $b = 0.01026 + 2.64515I$	$5.05194 + 3.77462I$	$11.6382 - 10.3724I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.865461 + 1.109310I$ $a = 0.989347 + 0.290574I$ $b = -1.56337 + 0.89130I$	$1.23530 + 7.11550I$	0
$u = -0.865461 - 1.109310I$ $a = 0.989347 - 0.290574I$ $b = -1.56337 - 0.89130I$	$1.23530 - 7.11550I$	0
$u = -1.05197 + 0.94991I$ $a = -1.180020 - 0.609379I$ $b = 1.382870 - 0.244233I$	$-5.05194 + 3.77462I$	0
$u = -1.05197 - 0.94991I$ $a = -1.180020 + 0.609379I$ $b = 1.382870 + 0.244233I$	$-5.05194 - 3.77462I$	0
$u = 0.89172 + 1.13300I$ $a = -1.161700 + 0.418276I$ $b = 1.72271 + 0.83595I$	$-14.3453I$	0
$u = 0.89172 - 1.13300I$ $a = -1.161700 - 0.418276I$ $b = 1.72271 - 0.83595I$	$14.3453I$	0
$u = -0.76555 + 1.23008I$ $a = -0.662962 - 0.381871I$ $b = 1.242360 - 0.087577I$	$-1.70620 + 4.86322I$	0
$u = -0.76555 - 1.23008I$ $a = -0.662962 + 0.381871I$ $b = 1.242360 + 0.087577I$	$-1.70620 - 4.86322I$	0
$u = 0.157972 + 0.382405I$ $a = 3.18352 - 0.59179I$ $b = -0.795555 - 0.090965I$	$-0.95566 - 2.59332I$	$-5.16066 + 5.00921I$
$u = 0.157972 - 0.382405I$ $a = 3.18352 + 0.59179I$ $b = -0.795555 + 0.090965I$	$-0.95566 + 2.59332I$	$-5.16066 - 5.00921I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.07599 + 1.62893I$ $a = -0.047185 + 0.419190I$ $b = \quad 0.130648 - 0.204139I$	$8.49949 + 3.58541I$	0
$u = -0.07599 - 1.62893I$ $a = -0.047185 - 0.419190I$ $b = \quad 0.130648 + 0.204139I$	$8.49949 - 3.58541I$	0

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

(i) Arc colorings

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

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

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

$a_9 = \begin{pmatrix} -1 \\ 1 \end{pmatrix}$

$a_8 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$

$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$

$a_7 = \begin{pmatrix} -1 \\ -u \end{pmatrix}$

$a_{11} = \begin{pmatrix} u \\ 0 \end{pmatrix}$

$a_{10} = \begin{pmatrix} u \\ 0 \end{pmatrix}$

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

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

$a_6 = \begin{pmatrix} 0 \\ -u \end{pmatrix}$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -8u - 4$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.500000 + 0.866025I$ $a = -1.00000$ $b = \quad 1.00000$	$4.05977I$	$0. - 6.92820I$
$u = -0.500000 - 0.866025I$ $a = -1.00000$ $b = \quad 1.00000$	$-4.05977I$	$0. + 6.92820I$

III. $\boldsymbol{I^u_3 = \langle -u^9 - 3u^7 - 5u^5 - u^4 - 10u^3 - u^2 + b - 6u,\ -126u^9 - 4u^8 + \cdots + 85a - 111,\ u^{10} + 3u^8 + 5u^6 + u^5 + 10u^4 + u^3 + 7u^2 + 1\rangle}$

(i) Arc colorings

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

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

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

$$a_9 = \begin{pmatrix} 1.48235u^9 + 0.0470588u^8 + \cdots + 6.63529u + 1.30588 \\ u^9 + 3u^7 + 5u^5 + u^4 + 10u^3 + u^2 + 6u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 2.48235u^9 + 0.0470588u^8 + \cdots + 12.6353u + 1.30588 \\ u^9 + 3u^7 + 5u^5 + u^4 + 10u^3 + u^2 + 6u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -3.69412u^9 - 1.48235u^8 + \cdots - 19.0118u - 5.63529 \\ -2.02353u^9 - 0.270588u^8 + \cdots - 9.15294u - 1.25882 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1.94118u^9 - 0.176471u^8 + \cdots + 9.11765u + 1.35294 \\ 1.07059u^9 - 0.188235u^8 + \cdots + 5.45882u - 0.223529 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.647059u^9 - 0.941176u^8 + \cdots - 3.70588u - 3.11765 \\ -1.02353u^9 - 0.270588u^8 + \cdots - 4.15294u - 1.25882 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -1.67059u^9 - 1.21176u^8 + \cdots - 7.85882u - 4.37647 \\ -1.02353u^9 - 0.270588u^8 + \cdots - 4.15294u - 1.25882 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 2.56471u^9 + 0.494118u^8 + \cdots + 14.6706u + 1.21176 \\ 1.22353u^9 + 0.0705882u^8 + \cdots + 5.95294u - 0.541176 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -2.62353u^9 - 1.67059u^8 + \cdots - 13.5529u - 5.85882 \\ -1.85882u^9 - 0.376471u^8 + \cdots - 8.08235u - 1.44706 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 3.05882u^9 + 2.17647u^8 + \cdots + 17.8824u + 10.6471 \\ 2.10588u^9 + 0.717647u^8 + \cdots + 11.1882u + 3.16471 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= \frac{9}{85}u^9 - \frac{24}{85}u^8 + \frac{91}{85}u^7 - \frac{101}{85}u^6 + \frac{201}{85}u^5 - \frac{1}{5}u^4 + \frac{362}{85}u^3 - \frac{163}{85}u^2 + \frac{356}{85}u - \frac{156}{85}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{10} - 6u^9 + \cdots - 14u + 1$
c_2, c_3	$u^{10} + 3u^8 + 5u^6 + u^5 + 10u^4 + u^3 + 7u^2 + 1$
c_4, c_{12}	$u^{10} + u^9 + 2u^8 - 4u^7 - 9u^6 - 11u^5 + 5u^4 + 33u^3 + 45u^2 + 40u + 16$
c_5	$u^{10} + 3u^8 + 5u^6 - u^5 + 10u^4 - u^3 + 7u^2 + 1$
c_6, c_{11}	$u^{10} + 5u^9 + 8u^8 + 2u^7 - 6u^6 - 4u^5 + 5u^4 + 9u^3 + u^2 - 3u + 1$
c_7	$u^{10} - 2u^9 + 7u^8 - 13u^7 + 21u^6 - 24u^5 + 21u^4 - 13u^3 + 7u^2 - 2u + 1$
c_8	$u^{10} + u^7 - 9u^6 - 2u^5 + 14u^4 + 5u^3 + 15u^2 + 2u + 1$
c_9	$u^{10} - 5u^9 + 8u^8 - 2u^7 - 6u^6 + 4u^5 + 5u^4 - 9u^3 + u^2 + 3u + 1$
c_{10}	$u^{10} - u^9 + 2u^8 + 4u^7 - 9u^6 + 11u^5 + 5u^4 - 33u^3 + 45u^2 - 40u + 16$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{10} + 2y^9 + \cdots - 58y + 1$
c_2, c_3, c_5	$y^{10} + 6y^9 + \cdots + 14y + 1$
c_4, c_{10}, c_{12}	$y^{10} + 3y^9 + \cdots - 160y + 256$
c_6, c_9, c_{11}	$y^{10} - 9y^9 + \cdots - 7y + 1$
c_7	$y^{10} + 10y^9 + \cdots + 10y + 1$
c_8	$y^{10} - 18y^8 + \cdots + 26y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.028467 + 0.876055I$ $a = 1.150800 - 0.608136I$ $b = 0.065521 + 0.264223I$	$-1.89767I$	$0. + 1.79792I$
$u = -0.028467 - 0.876055I$ $a = 1.150800 + 0.608136I$ $b = 0.065521 - 0.264223I$	$1.89767I$	$0. - 1.79792I$
$u = -0.930058 + 0.884199I$ $a = -1.28389 - 0.71814I$ $b = 1.49482 - 0.34728I$	$-4.66287 + 3.40367I$	$1.43158 - 1.46813I$
$u = -0.930058 - 0.884199I$ $a = -1.28389 + 0.71814I$ $b = 1.49482 + 0.34728I$	$-4.66287 - 3.40367I$	$1.43158 + 1.46813I$
$u = 0.993286 + 0.964746I$ $a = 0.781058 - 0.547640I$ $b = -1.51134 - 0.46158I$	$-9.09852 - 3.60546I$	$-8.68376 + 2.68056I$
$u = 0.993286 - 0.964746I$ $a = 0.781058 + 0.547640I$ $b = -1.51134 + 0.46158I$	$-9.09852 + 3.60546I$	$-8.68376 - 2.68056I$
$u = -0.05526 + 1.47925I$ $a = -0.133797 + 0.210607I$ $b = 0.080483 - 0.804181I$	$9.09852 + 3.60546I$	$8.68376 - 2.68056I$
$u = -0.05526 - 1.47925I$ $a = -0.133797 - 0.210607I$ $b = 0.080483 + 0.804181I$	$9.09852 - 3.60546I$	$8.68376 + 2.68056I$
$u = 0.020502 + 0.433246I$ $a = 0.98582 + 1.96028I$ $b = -0.12949 + 1.86975I$	$4.66287 - 3.40367I$	$-1.43158 + 1.46813I$
$u = 0.020502 - 0.433246I$ $a = 0.98582 - 1.96028I$ $b = -0.12949 - 1.86975I$	$4.66287 + 3.40367I$	$-1.43158 - 1.46813I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^2-u+1)(u^{10}-6u^9+\cdots-14u+1)(u^{42}+12u^{41}+\cdots+230u+9)$
c_2	$(u^2+u+1)(u^{10}+3u^8+5u^6+u^5+10u^4+u^3+7u^2+1)$ $\cdot(u^{42}+6u^{40}+\cdots+4u+3)$
c_3	$(u^2+u+1)(u^{10}+3u^8+5u^6+u^5+10u^4+u^3+7u^2+1)$ $\cdot(u^{42}+6u^{40}+\cdots-4u+3)$
c_4	$u^2(u^{10}+u^9+\cdots+40u+16)$ $\cdot(u^{42}+14u^{40}+\cdots-792u+172)$
c_5	$(u^2-u+1)(u^{10}+3u^8+5u^6-u^5+10u^4-u^3+7u^2+1)$ $\cdot(u^{42}+6u^{40}+\cdots+4u+3)$
c_6	$(u^2+u+1)(u^{10}+5u^9+\cdots-3u+1)$ $\cdot(u^{42}+3u^{41}+\cdots+1471u+111)$
c_7	$(u+1)^2$ $\cdot(u^{10}-2u^9+7u^8-13u^7+21u^6-24u^5+21u^4-13u^3+7u^2-2u+1)$ $\cdot(u^{42}+u^{41}+\cdots+47u+99)$
c_8	$(u+1)^2(u^{10}+u^7-9u^6-2u^5+14u^4+5u^3+15u^2+2u+1)$ $\cdot(u^{42}+u^{41}+\cdots-131u+111)$
c_9	$(u^2-u+1)(u^{10}-5u^9+\cdots+3u+1)$ $\cdot(u^{42}+3u^{41}+\cdots+1471u+111)$
c_{10}	$u^2(u^{10}-u^9+\cdots-40u+16)$ $\cdot(u^{42}+14u^{40}+\cdots-792u+172)$
c_{11}	$(u^2+u+1)(u^{10}+5u^9+\cdots-3u+1)$ $\cdot(u^{42}-3u^{41}+\cdots-1471u+111)$
c_{12}	$u^2(u^{10}+u^9+\cdots+40u+16)$ $\cdot(u^{42}+14u^{40}+\cdots+792u+172)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^2+y+1)(y^{10}+2y^9+\cdots-58y+1)(y^{42}+44y^{41}+\cdots+254y+81)$
c_2, c_3, c_5	$(y^2+y+1)(y^{10}+6y^9+\cdots+14y+1)(y^{42}+12y^{41}+\cdots+230y+9)$
c_4, c_{10}, c_{12}	$y^2(y^{10}+3y^9+\cdots-160y+256)(y^{42}+28y^{41}+\cdots+8448y+29584)$
c_6, c_9, c_{11}	$(y^2+y+1)(y^{10}-9y^9+\cdots-7y+1)$ $\cdot(y^{42}-27y^{41}+\cdots+55937y+12321)$
c_7	$((y-1)^2)(y^{10}+10y^9+\cdots+10y+1)$ $\cdot(y^{42}+21y^{41}+\cdots+383891y+9801)$
c_8	$((y-1)^2)(y^{10}-18y^8+\cdots+26y+1)$ $\cdot(y^{42}-29y^{41}+\cdots+95171y+12321)$