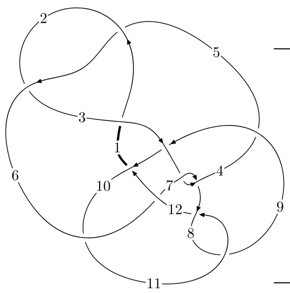
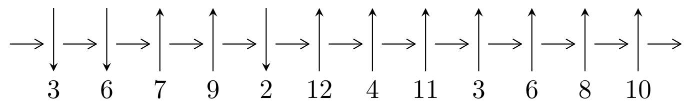
$12n_{0512}$ ($K12n_{0512}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -3.56209 \times 10^{137} u^{52} + 2.13565 \times 10^{138} u^{51} + \cdots + 5.27502 \times 10^{137} b - 7.84392 \times 10^{138},$$
$$- 1.41680 \times 10^{139} u^{52} + 8.65355 \times 10^{139} u^{51} + \cdots + 5.27502 \times 10^{137} a - 1.27431 \times 10^{140},$$
$$u^{53} - 6u^{52} + \cdots + 40u + 1 \rangle$$
$$I_2^u = \langle -457327227 u^{19} - 610703148 u^{18} + \cdots + 963582596 b + 1111419337,$$
$$2105382800 u^{19} + 2179873747 u^{18} + \cdots + 1252657367 a - 8679007382,\ u^{20} + u^{19} + \cdots - 3u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 73 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. $\boldsymbol{I_1^u = \langle -3.56 \times 10^{137} u^{52} + 2.14 \times 10^{138} u^{51} + \cdots + 5.28 \times 10^{137} b - 7.84 \times 10^{138},\ -1.42 \times 10^{139} u^{52} + 8.65 \times 10^{139} u^{51} + \cdots + 5.28 \times 10^{137} a - 1.27 \times 10^{140},\ u^{53} - 6u^{52} + \cdots + 40u + 1 \rangle}$

(i) Arc colorings

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

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

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

$$a_1 = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 26.8586u^{52} - 164.048u^{51} + \cdots + 7449.00u + 241.575 \\ 0.675274u^{52} - 4.04861u^{51} + \cdots + 369.847u + 14.8699 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 26.8586u^{52} - 164.048u^{51} + \cdots + 7449.00u + 241.575 \\ 0.965646u^{52} - 5.81779u^{51} + \cdots + 458.826u + 17.7659 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 25.8930u^{52} - 158.230u^{51} + \cdots + 6990.17u + 223.809 \\ 0.965646u^{52} - 5.81779u^{51} + \cdots + 458.826u + 17.7659 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -18.4782u^{52} + 112.605u^{51} + \cdots - 6257.19u - 224.169 \\ 1.57008u^{52} - 9.59238u^{51} + \cdots + 487.147u + 16.3474 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -2.77482u^{52} + 16.5932u^{51} + \cdots - 1230.46u - 34.8505 \\ -1.36325u^{52} + 8.33041u^{51} + \cdots - 410.734u - 14.9305 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 21.3342u^{52} - 129.983u^{51} + \cdots + 6833.05u + 226.930 \\ 3.27322u^{52} - 19.9309u^{51} + \cdots + 1054.12u + 37.4865 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 19.9047u^{52} - 121.176u^{51} + \cdots + 6787.17u + 238.652 \\ -0.884196u^{52} + 5.40601u^{51} + \cdots - 268.684u - 8.40868 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 40.2182u^{52} - 245.280u^{51} + \cdots + 12382.7u + 427.694$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{53} + 80u^{52} + \cdots + 238u + 1$
c_2, c_5	$u^{53} + 6u^{52} + \cdots + 40u - 1$
c_3, c_7	$u^{53} - 17u^{51} + \cdots + 63u - 11$
c_4	$u^{53} + u^{52} + \cdots - 131614u - 3089431$
c_6	$u^{53} - 2u^{52} + \cdots - 45u - 25$
c_8, c_{11}	$u^{53} + 7u^{52} + \cdots - 392u - 37$
c_9	$u^{53} - 2u^{52} + \cdots + 34266u - 3617$
c_{10}	$u^{53} + 7u^{52} + \cdots + 22602191u - 16425077$
c_{12}	$u^{53} + u^{52} + \cdots + 528726u - 213397$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{53} - 212y^{52} + \cdots + 14210y - 1$
c_2, c_5	$y^{53} - 80y^{52} + \cdots + 238y - 1$
c_3, c_7	$y^{53} - 34y^{52} + \cdots + 3309y - 121$
c_4	$y^{53} + 55y^{52} + \cdots - 87460058633830y - 9544583903761$
c_6	$y^{53} + 8y^{52} + \cdots - 16775y - 625$
c_8, c_{11}	$y^{53} + 41y^{52} + \cdots + 12250y - 1369$
c_9	$y^{53} + 102y^{52} + \cdots + 1220203166y - 13082689$
c_{10}	$y^{53} + 71y^{52} + \cdots - 2845499866554563y - 269783154455929$
c_{12}	$y^{53} + 93y^{52} + \cdots - 373137198832y - 45538279609$

(vi) Complex Volumes and Cusp Shapes

Solutions to I^u_1	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.651411 + 0.752062I$ $a = -1.134320 + 0.061409I$ $b = -0.511145 - 0.535779I$	$-3.88667 - 1.27131I$	0
$u = -0.651411 - 0.752062I$ $a = -1.134320 - 0.061409I$ $b = -0.511145 + 0.535779I$	$-3.88667 + 1.27131I$	0
$u = 0.992728 + 0.033495I$ $a = 1.012130 - 0.339700I$ $b = -1.193880 - 0.568300I$	$0.238785 - 0.926241I$	0
$u = 0.992728 - 0.033495I$ $a = 1.012130 + 0.339700I$ $b = -1.193880 + 0.568300I$	$0.238785 + 0.926241I$	0
$u = 1.010360 + 0.207032I$ $a = -0.585032 - 0.713094I$ $b = -0.373601 - 0.012887I$	$-3.66107 - 0.98999I$	0
$u = 1.010360 - 0.207032I$ $a = -0.585032 + 0.713094I$ $b = -0.373601 + 0.012887I$	$-3.66107 + 0.98999I$	0
$u = -0.834510 + 0.668017I$ $a = -0.037971 + 0.804259I$ $b = -0.811369 + 0.481691I$	$1.21719 + 5.26322I$	0
$u = -0.834510 - 0.668017I$ $a = -0.037971 - 0.804259I$ $b = -0.811369 - 0.481691I$	$1.21719 - 5.26322I$	0
$u = 0.827402 + 0.388907I$ $a = 0.140688 - 0.616647I$ $b = -0.620881 - 0.428477I$	$-1.43824 - 1.25865I$	0
$u = 0.827402 - 0.388907I$ $a = 0.140688 + 0.616647I$ $b = -0.620881 + 0.428477I$	$-1.43824 + 1.25865I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.581625+0.702705I$ $a=\ \ 0.846217-0.114913I$ $b=\ \ 0.347803+0.705862I$	$2.02336-0.17363I$	0
$u=-0.581625-0.702705I$ $a=\ \ 0.846217+0.114913I$ $b=\ \ 0.347803-0.705862I$	$2.02336+0.17363I$	0
$u=-0.604136+0.653648I$ $a=\ \ 0.15330-2.45151I$ $b=\ \ 2.94062-1.54125I$	$-1.09785-5.39717I$	0
$u=-0.604136-0.653648I$ $a=\ \ 0.15330+2.45151I$ $b=\ \ 2.94062+1.54125I$	$-1.09785+5.39717I$	0
$u=-0.234994+0.792616I$ $a=-0.68335+1.25161I$ $b=-0.967724+0.802230I$	$0.64524-2.29715I$	0
$u=-0.234994-0.792616I$ $a=-0.68335-1.25161I$ $b=-0.967724-0.802230I$	$0.64524+2.29715I$	0
$u=\ \ 1.011050+0.728145I$ $a=-0.863583-0.230870I$ $b=-0.209639+0.531099I$	$-2.58796+4.29315I$	0
$u=\ \ 1.011050-0.728145I$ $a=-0.863583+0.230870I$ $b=-0.209639-0.531099I$	$-2.58796-4.29315I$	0
$u=-0.722480+0.177433I$ $a=-1.08346+1.04580I$ $b=-0.530116-0.093427I$	$-4.43015-2.75918I$	$0.+6.84222I$
$u=-0.722480-0.177433I$ $a=-1.08346-1.04580I$ $b=-0.530116+0.093427I$	$-4.43015+2.75918I$	$0.-6.84222I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.656788+0.104423I$ $a=\ \ 1.139030-0.753059I$ $b=-1.035190+0.001812I$	$1.75452+1.11434I$	$6.66980-0.91738I$
$u=-0.656788-0.104423I$ $a=\ \ 1.139030+0.753059I$ $b=-1.035190-0.001812I$	$1.75452-1.11434I$	$6.66980+0.91738I$
$u=\ \ 1.19055+0.88568I$ $a=\ \ 1.03039+1.18794I$ $b=\ \ 3.01001-2.00642I$	$-5.54516-2.28770I$	0
$u=\ \ 1.19055-0.88568I$ $a=\ \ 1.03039-1.18794I$ $b=\ \ 3.01001+2.00642I$	$-5.54516+2.28770I$	0
$u=-1.25052+0.95834I$ $a=\ \ 0.765795-0.742774I$ $b=\ \ 1.93360+1.56424I$	$-2.29349+8.62681I$	0
$u=-1.25052-0.95834I$ $a=\ \ 0.765795+0.742774I$ $b=\ \ 1.93360-1.56424I$	$-2.29349-8.62681I$	0
$u=\ \ 0.015951+0.307510I$ $a=-3.13764-2.41335I$ $b=-1.067820-0.221770I$	$-2.76658-2.41535I$	$4.47087+1.33196I$
$u=\ \ 0.015951-0.307510I$ $a=-3.13764+2.41335I$ $b=-1.067820+0.221770I$	$-2.76658+2.41535I$	$4.47087-1.33196I$
$u=\ \ 1.73290+0.22179I$ $a=-0.166376+0.891503I$ $b=\ \ 1.53471-0.39631I$	$-13.03680+0.42178I$	0
$u=\ \ 1.73290-0.22179I$ $a=-0.166376-0.891503I$ $b=\ \ 1.53471+0.39631I$	$-13.03680-0.42178I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.222604$ $a = 2.63595$ $b = 0.204967$	0.751427	13.9310
$u = 1.79232 + 0.08357I$ $a = -0.253542 + 0.882171I$ $b = 0.692163 - 0.475817I$	$-8.36557 - 7.93433I$	0
$u = 1.79232 - 0.08357I$ $a = -0.253542 - 0.882171I$ $b = 0.692163 + 0.475817I$	$-8.36557 + 7.93433I$	0
$u = -1.81353 + 0.16616I$ $a = -0.207496 - 0.844861I$ $b = 1.317620 + 0.423194I$	$-13.8162 + 3.3112I$	0
$u = -1.81353 - 0.16616I$ $a = -0.207496 + 0.844861I$ $b = 1.317620 - 0.423194I$	$-13.8162 - 3.3112I$	0
$u = 1.82641 + 0.02277I$ $a = -0.408438 - 0.956178I$ $b = 0.835144 + 1.106430I$	$-7.20845 - 1.41990I$	0
$u = 1.82641 - 0.02277I$ $a = -0.408438 + 0.956178I$ $b = 0.835144 - 1.106430I$	$-7.20845 + 1.41990I$	0
$u = -1.83249 + 0.05934I$ $a = -0.289698 - 0.861622I$ $b = 0.850502 + 0.649158I$	$-11.49160 + 3.02837I$	0
$u = -1.83249 - 0.05934I$ $a = -0.289698 + 0.861622I$ $b = 0.850502 - 0.649158I$	$-11.49160 - 3.02837I$	0
$u = -0.0831788 + 0.0833293I$ $a = 9.86402 - 1.69209I$ $b = -1.031690 + 0.055942I$	$0.30393 - 7.10088I$	$6.36388 + 5.33035I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.0831788 - 0.0833293I$ $a = 9.86402 + 1.69209I$ $b = -1.031690 - 0.055942I$	$0.30393 + 7.10088I$	$6.36388 - 5.33035I$
$u = -0.0934579 + 0.0087537I$ $a = -4.09016 + 5.62846I$ $b = 1.230780 + 0.270711I$	$3.45336 - 0.72834I$	$4.97850 + 9.73372I$
$u = -0.0934579 - 0.0087537I$ $a = -4.09016 - 5.62846I$ $b = 1.230780 - 0.270711I$	$3.45336 + 0.72834I$	$4.97850 - 9.73372I$
$u = 1.92828 + 0.39816I$ $a = -0.073932 + 0.751779I$ $b = 1.55124 - 0.77066I$	$-12.70340 - 4.46357I$	0
$u = 1.92828 - 0.39816I$ $a = -0.073932 - 0.751779I$ $b = 1.55124 + 0.77066I$	$-12.70340 + 4.46357I$	0
$u = 1.95974 + 0.27409I$ $a = 0.495203 - 1.120220I$ $b = -2.64977 + 1.35321I$	$-13.4569 - 14.5302I$	0
$u = 1.95974 - 0.27409I$ $a = 0.495203 + 1.120220I$ $b = -2.64977 - 1.35321I$	$-13.4569 + 14.5302I$	0
$u = -1.96062 + 0.27144I$ $a = 0.606172 + 1.255340I$ $b = -3.13934 - 1.65634I$	$-16.6143 + 7.9534I$	0
$u = -1.96062 - 0.27144I$ $a = 0.606172 - 1.255340I$ $b = -3.13934 + 1.65634I$	$-16.6143 - 7.9534I$	0
$u = -1.99808 + 0.23948I$ $a = -0.171286 - 0.721049I$ $b = 1.35791 + 0.78829I$	$-13.38850 + 1.15104I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.99808 - 0.23948I$ $a = -0.171286 + 0.721049I$ $b = 1.35791 - 0.78829I$	$-13.38850 - 1.15104I$	0
$u = 2.14143 + 0.40086I$ $a = 1.31536 - 2.28235I$ $b = -8.56241 + 4.52922I$	$-9.57518 - 1.18543I$	0
$u = 2.14143 - 0.40086I$ $a = 1.31536 + 2.28235I$ $b = -8.56241 - 4.52922I$	$-9.57518 + 1.18543I$	0

II.
$\boldsymbol{I_2^u = \langle -4.57 \times 10^8 u^{19} - 6.11 \times 10^8 u^{18} + \cdots + 9.64 \times 10^7 b + 1.11 \times 10^9,\ 2.11 \times 10^9 u^{19} + 2.18 \times 10^9 u^{18} + \cdots + 1.25 \times 10^9 a - 8.68 \times 10^9,\ u^{20} + u^{19} + \cdots - 3u + 1 \rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -1.68073u^{19} - 1.74020u^{18} + \cdots + 1.22079u + 6.92848 \\ 4.74611u^{19} + 6.33784u^{18} + \cdots + 4.25754u - 11.5342 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -1.68073u^{19} - 1.74020u^{18} + \cdots + 1.22079u + 6.92848 \\ 4.92880u^{19} + 6.87890u^{18} + \cdots + 5.75988u - 11.4748 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -6.60953u^{19} - 8.61910u^{18} + \cdots - 4.53908u + 18.4033 \\ 4.92880u^{19} + 6.87890u^{18} + \cdots + 5.75988u - 11.4748 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 17.7080u^{19} + 25.0549u^{18} + \cdots + 26.1497u - 42.8331 \\ -5.23321u^{19} - 7.65134u^{18} + \cdots - 8.10067u + 11.1686 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 2.92468u^{19} + 5.21610u^{18} + \cdots + 12.4614u - 3.29960 \\ 3.04593u^{19} + 4.28134u^{18} + \cdots + 2.39110u - 8.17378 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 9.53421u^{19} + 13.8352u^{18} + \cdots + 17.0004u - 19.7029 \\ 2.01703u^{19} + 2.81058u^{18} + \cdots + 0.239552u - 5.24907 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 18.3525u^{19} + 26.1833u^{18} + \cdots + 30.0756u - 42.2405 \\ -2.82962u^{19} - 4.30100u^{18} + \cdots - 5.11549u + 5.70458 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{16130734190}{1252657367}u^{19} - \frac{21563499972}{1252657367}u^{18} + \cdots - \frac{38299165429}{1252657367}u + \frac{44038168311}{1252657367}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{20} - 23u^{19} + \cdots - 21u + 1$
c_2	$u^{20} + u^{19} + \cdots - 3u + 1$
c_3	$u^{20} - 3u^{19} + \cdots - 2u + 1$
c_4	$u^{20} + 6u^{18} + \cdots + 9u + 1$
c_5	$u^{20} - u^{19} + \cdots + 3u + 1$
c_6	$u^{20} - u^{19} + \cdots - 4u + 1$
c_7	$u^{20} + 3u^{19} + \cdots + 2u + 1$
c_8	$u^{20} + 6u^{19} + \cdots + 45u + 7$
c_9	$u^{20} - u^{19} + \cdots - u + 1$
c_{10}	$u^{20} + 4u^{19} + \cdots + 4u + 1$
c_{11}	$u^{20} - 6u^{19} + \cdots - 45u + 7$
c_{12}	$u^{20} + 9u^{18} + \cdots + u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{20} - 51y^{19} + \cdots - 41y + 1$
c_2, c_5	$y^{20} - 23y^{19} + \cdots - 21y + 1$
c_3, c_7	$y^{20} - 17y^{19} + \cdots - 16y + 1$
c_4	$y^{20} + 12y^{19} + \cdots - 61y + 1$
c_6	$y^{20} + y^{19} + \cdots - 16y + 1$
c_8, c_{11}	$y^{20} + 14y^{19} + \cdots + 215y + 49$
c_9	$y^{20} + 23y^{19} + \cdots - 5y + 1$
c_{10}	$y^{20} + 20y^{19} + \cdots - 4y + 1$
c_{12}	$y^{20} + 18y^{19} + \cdots - 7y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.953168 + 0.477953I$ $a = 0.027910 - 0.764739I$ $b = 1.43070 + 0.64601I$	$-0.15553 + 8.95849I$	$6.05677 - 7.79186I$
$u = -0.953168 - 0.477953I$ $a = 0.027910 + 0.764739I$ $b = 1.43070 - 0.64601I$	$-0.15553 - 8.95849I$	$6.05677 + 7.79186I$
$u = 1.076970 + 0.113176I$ $a = 0.644492 - 0.140096I$ $b = -1.051310 - 0.246752I$	$-0.753541 - 0.108333I$	$1.89880 - 1.85099I$
$u = 1.076970 - 0.113176I$ $a = 0.644492 + 0.140096I$ $b = -1.051310 + 0.246752I$	$-0.753541 + 0.108333I$	$1.89880 + 1.85099I$
$u = -0.880029 + 0.788989I$ $a = -0.483386 + 0.858602I$ $b = -1.96510 + 0.09601I$	$0.01293 - 4.36454I$	$5.65242 + 3.34145I$
$u = -0.880029 - 0.788989I$ $a = -0.483386 - 0.858602I$ $b = -1.96510 - 0.09601I$	$0.01293 + 4.36454I$	$5.65242 - 3.34145I$
$u = 0.573843 + 0.568398I$ $a = -1.211620 - 0.162641I$ $b = -0.560549 + 0.039344I$	$-3.66684 + 1.94633I$	$5.45415 - 4.37772I$
$u = 0.573843 - 0.568398I$ $a = -1.211620 + 0.162641I$ $b = -0.560549 - 0.039344I$	$-3.66684 - 1.94633I$	$5.45415 + 4.37772I$
$u = 0.735779 + 0.317158I$ $a = -0.35138 + 1.55614I$ $b = 1.399420 - 0.144993I$	$-3.47476 - 3.31570I$	$0.67932 + 5.99198I$
$u = 0.735779 - 0.317158I$ $a = -0.35138 - 1.55614I$ $b = 1.399420 + 0.144993I$	$-3.47476 + 3.31570I$	$0.67932 - 5.99198I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.165200 + 0.433501I$ $a = 0.353048 + 0.390155I$ $b = -1.45248 + 0.46098I$	$1.34131 + 3.38449I$	$4.71773 - 3.89524I$
$u = -1.165200 - 0.433501I$ $a = 0.353048 - 0.390155I$ $b = -1.45248 - 0.46098I$	$1.34131 - 3.38449I$	$4.71773 + 3.89524I$
$u = -0.466533 + 0.291062I$ $a = 0.540211 - 0.115052I$ $b = 0.937438 + 0.236499I$	$3.58769 - 0.13487I$	$11.02112 - 2.80092I$
$u = -0.466533 - 0.291062I$ $a = 0.540211 + 0.115052I$ $b = 0.937438 - 0.236499I$	$3.58769 + 0.13487I$	$11.02112 + 2.80092I$
$u = 0.418981 + 0.040038I$ $a = 2.42239 - 0.52074I$ $b = -0.469495 + 1.066240I$	$-1.05506 + 2.08410I$	$2.22198 - 2.68803I$
$u = 0.418981 - 0.040038I$ $a = 2.42239 + 0.52074I$ $b = -0.469495 - 1.066240I$	$-1.05506 - 2.08410I$	$2.22198 + 2.68803I$
$u = -1.88694 + 0.23384I$ $a = -0.168220 - 0.691711I$ $b = 1.315960 + 0.356311I$	$-12.85410 + 2.44827I$	$4.74569 - 1.68433I$
$u = -1.88694 - 0.23384I$ $a = -0.168220 + 0.691711I$ $b = 1.315960 - 0.356311I$	$-12.85410 - 2.44827I$	$4.74569 + 1.68433I$
$u = 2.04630 + 0.30975I$ $a = -0.77344 + 1.85675I$ $b = 4.91542 - 3.72104I$	$-9.30106 - 1.00549I$	$8.05201 - 4.41716I$
$u = 2.04630 - 0.30975I$ $a = -0.77344 - 1.85675I$ $b = 4.91542 + 3.72104I$	$-9.30106 + 1.00549I$	$8.05201 + 4.41716I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{20}-23u^{19}+\cdots-21u+1)(u^{53}+80u^{52}+\cdots+238u+1)$
c_2	$(u^{20}+u^{19}+\cdots-3u+1)(u^{53}+6u^{52}+\cdots+40u-1)$
c_3	$(u^{20}-3u^{19}+\cdots-2u+1)(u^{53}-17u^{51}+\cdots+63u-11)$
c_4	$(u^{20}+6u^{18}+\cdots+9u+1)(u^{53}+u^{52}+\cdots-131614u-3089431)$
c_5	$(u^{20}-u^{19}+\cdots+3u+1)(u^{53}+6u^{52}+\cdots+40u-1)$
c_6	$(u^{20}-u^{19}+\cdots-4u+1)(u^{53}-2u^{52}+\cdots-45u-25)$
c_7	$(u^{20}+3u^{19}+\cdots+2u+1)(u^{53}-17u^{51}+\cdots+63u-11)$
c_8	$(u^{20}+6u^{19}+\cdots+45u+7)(u^{53}+7u^{52}+\cdots-392u-37)$
c_9	$(u^{20}-u^{19}+\cdots-u+1)(u^{53}-2u^{52}+\cdots+34266u-3617)$
c_{10}	$(u^{20}+4u^{19}+\cdots+4u+1)$ $\cdot(u^{53}+7u^{52}+\cdots+22602191u-16425077)$
c_{11}	$(u^{20}-6u^{19}+\cdots-45u+7)(u^{53}+7u^{52}+\cdots-392u-37)$
c_{12}	$(u^{20}+9u^{18}+\cdots+u+1)(u^{53}+u^{52}+\cdots+528726u-213397)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{20}-51y^{19}+\cdots-41y+1)(y^{53}-212y^{52}+\cdots+14210y-1)$
c_2, c_5	$(y^{20}-23y^{19}+\cdots-21y+1)(y^{53}-80y^{52}+\cdots+238y-1)$
c_3, c_7	$(y^{20}-17y^{19}+\cdots-16y+1)(y^{53}-34y^{52}+\cdots+3309y-121)$
c_4	$(y^{20}+12y^{19}+\cdots-61y+1)$ $\cdot(y^{53}+55y^{52}+\cdots-87460058633830y-9544583903761)$
c_6	$(y^{20}+y^{19}+\cdots-16y+1)(y^{53}+8y^{52}+\cdots-16775y-625)$
c_8, c_{11}	$(y^{20}+14y^{19}+\cdots+215y+49)(y^{53}+41y^{52}+\cdots+12250y-1369)$
c_9	$(y^{20}+23y^{19}+\cdots-5y+1)$ $\cdot(y^{53}+102y^{52}+\cdots+1220203166y-13082689)$
c_{10}	$(y^{20}+20y^{19}+\cdots-4y+1)$ $\cdot(y^{53}+71y^{52}+\cdots-2845499866554563y-269783154455929)$
c_{12}	$(y^{20}+18y^{19}+\cdots-7y+1)$ $\cdot(y^{53}+93y^{52}+\cdots-373137198832y-45538279609)$