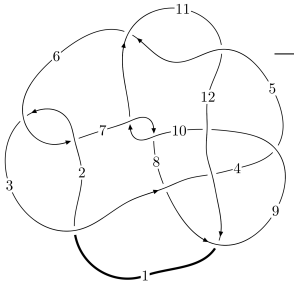
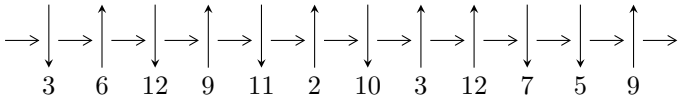
$12n_{0359}$ $(K12n_{0359})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -1.47058 \times 10^{201} u^{51} + 5.71881 \times 10^{201} u^{50} + \cdots + 6.09460 \times 10^{202} b + 1.54791 \times 10^{203}, \\ & - 1.76593 \times 10^{202} u^{51} + 1.24322 \times 10^{204} u^{50} + \cdots + 2.49879 \times 10^{204} a + 8.25019 \times 10^{206}, \\ & u^{52} - 3u^{51} + \cdots + 774u + 41 \rangle \\ I_2^u = \langle & -352794218079 u^{17} - 1984503379263 u^{16} + \cdots + 27696360721 b - 8429306818513, \\ & - 9258892608982 u^{17} - 56236696433763 u^{16} + \cdots + 470838132257 a - 283519838364447, \\ & u^{18} + 6u^{17} + \cdots + 137u + 17 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 70 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. $\boldsymbol{I_1^u = \langle -1.47 \times 10^{201} u^{51} + 5.72 \times 10^{201} u^{50} + \cdots + 6.09 \times 10^{202} b + 1.55 \times 10^{203},\ -1.77 \times 10^{202} u^{51} + 1.24 \times 10^{204} u^{50} + \cdots + 2.50 \times 10^{204} a + 8.25 \times 10^{206},\ u^{52} - 3u^{51} + \cdots + 774u + 41 \rangle}$

(i) Arc colorings

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

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

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

$$a_{10} = \begin{pmatrix} 0.00706714u^{51} - 0.497531u^{50} + \cdots - 4176.94u - 330.168 \\ 0.0241292u^{51} - 0.0938340u^{50} + \cdots - 43.0144u - 2.53980 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.00706714u^{51} - 0.497531u^{50} + \cdots - 4176.94u - 330.168 \\ 0.197950u^{51} - 0.650977u^{50} + \cdots + 325.375u + 16.9897 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 3.73750u^{51} - 11.7980u^{50} + \cdots + 9454.68u + 541.305 \\ 0.193063u^{51} - 0.579335u^{50} + \cdots + 677.585u + 43.3523 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -2.42736u^{51} + 7.50252u^{50} + \cdots - 7583.02u - 470.483 \\ 0.650781u^{51} - 1.98369u^{50} + \cdots + 2282.43u + 144.200 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.190883u^{51} + 0.153446u^{50} + \cdots - 4502.31u - 347.158 \\ 0.197950u^{51} - 0.650977u^{50} + \cdots + 325.375u + 16.9897 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -3.76231u^{51} + 12.0301u^{50} + \cdots - 8407.16u - 464.145 \\ 0.726083u^{51} - 2.30029u^{50} + \cdots + 1789.52u + 100.639 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 2.24745u^{51} - 6.98939u^{50} + \cdots + 6618.23u + 408.458 \\ -0.635359u^{51} + 1.80797u^{50} + \cdots - 3338.50u - 227.183 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.815911u^{51} + 2.78119u^{50} + \cdots - 191.619u + 36.3758 \\ -0.365167u^{51} + 1.04144u^{50} + \cdots - 1859.62u - 126.481 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -3.07815u^{51} + 9.48621u^{50} + \cdots - 9865.45u - 614.683 \\ 0.650781u^{51} - 1.98369u^{50} + \cdots + 2282.43u + 144.200 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -2.01660u^{51} + 5.78735u^{50} + \cdots - 10137.6u - 684.151$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{52}+29u^{51}+\cdots+1305u+49$
c_2, c_6	$u^{52}-3u^{51}+\cdots-33u+7$
c_3	$u^{52}-3u^{51}+\cdots+774u+41$
c_4	$u^{52}+u^{51}+\cdots-6854u+3421$
c_5, c_{11}	$u^{52}+u^{51}+\cdots+67u+173$
c_7, c_{10}	$u^{52}-5u^{51}+\cdots-175u+43$
c_8	$u^{52}-u^{51}+\cdots+35897u+98677$
c_9, c_{12}	$u^{52}+u^{51}+\cdots-164u+14$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{52} + y^{51} + \cdots - 11839y + 2401$
c_2, c_6	$y^{52} + 29y^{51} + \cdots + 1305y + 49$
c_3	$y^{52} - 91y^{51} + \cdots - 17778y + 1681$
c_4	$y^{52} + 65y^{51} + \cdots + 435342632y + 11703241$
c_5, c_{11}	$y^{52} + 47y^{51} + \cdots + 156055y + 29929$
c_7, c_{10}	$y^{52} + 21y^{51} + \cdots + 50043y + 1849$
c_8	$y^{52} + 71y^{51} + \cdots + 159369402631y + 9737150329$
c_9, c_{12}	$y^{52} + 65y^{51} + \cdots + 1188y + 196$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.847196+0.544439I$ $a=0.821121-1.049870I$ $b=1.283350+0.463702I$	$2.14411+0.25670I$	0
$u=-0.847196-0.544439I$ $a=0.821121+1.049870I$ $b=1.283350-0.463702I$	$2.14411-0.25670I$	0
$u=-0.633779+0.695586I$ $a=-0.465169+0.186673I$ $b=-0.777699+0.134617I$	$0.20861+2.21635I$	0
$u=-0.633779-0.695586I$ $a=-0.465169-0.186673I$ $b=-0.777699-0.134617I$	$0.20861-2.21635I$	0
$u=-1.050210+0.243025I$ $a=-1.018580+0.716714I$ $b=-0.003518-0.905590I$	$1.62405+1.56252I$	0
$u=-1.050210-0.243025I$ $a=-1.018580-0.716714I$ $b=-0.003518+0.905590I$	$1.62405-1.56252I$	0
$u=0.244644+0.877276I$ $a=-1.323870-0.306984I$ $b=-1.55896-0.12562I$	$1.74102+5.91393I$	0
$u=0.244644-0.877276I$ $a=-1.323870+0.306984I$ $b=-1.55896+0.12562I$	$1.74102-5.91393I$	0
$u=0.025679+0.905219I$ $a=0.551984+0.188120I$ $b=0.917186+0.799077I$	$0.33243+2.42561I$	0
$u=0.025679-0.905219I$ $a=0.551984-0.188120I$ $b=0.917186-0.799077I$	$0.33243-2.42561I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.765182 + 1.001930I$ $a = 0.914709 + 0.294749I$ $b = -0.309410 - 0.681136I$	$5.54999 + 1.24202I$	0
$u = 0.765182 - 1.001930I$ $a = 0.914709 - 0.294749I$ $b = -0.309410 + 0.681136I$	$5.54999 - 1.24202I$	0
$u = 0.248997 + 1.272460I$ $a = 0.245962 + 0.003913I$ $b = -0.696361 - 0.656099I$	$7.59032 + 0.63287I$	0
$u = 0.248997 - 1.272460I$ $a = 0.245962 - 0.003913I$ $b = -0.696361 + 0.656099I$	$7.59032 - 0.63287I$	0
$u = -0.638428 + 1.232980I$ $a = -0.642920 + 0.541264I$ $b = 0.385485 - 0.613568I$	$2.65578 - 3.46508I$	0
$u = -0.638428 - 1.232980I$ $a = -0.642920 - 0.541264I$ $b = 0.385485 + 0.613568I$	$2.65578 + 3.46508I$	0
$u = -0.38784 + 1.46878I$ $a = -0.0152670 + 0.1382970I$ $b = 0.831341 - 0.322019I$	$6.10025 + 5.08562I$	0
$u = -0.38784 - 1.46878I$ $a = -0.0152670 - 0.1382970I$ $b = 0.831341 + 0.322019I$	$6.10025 - 5.08562I$	0
$u = 0.375483 + 0.228163I$ $a = 2.56228 + 0.24619I$ $b = -0.215892 - 1.055770I$	$5.75363 + 3.02665I$	$4.71645 - 3.29713I$
$u = 0.375483 - 0.228163I$ $a = 2.56228 - 0.24619I$ $b = -0.215892 + 1.055770I$	$5.75363 - 3.02665I$	$4.71645 + 3.29713I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.298437+0.284498I$ $a=\ \ 0.72312-1.93166I$ $b=-0.388212+0.879733I$	$-3.46306-1.08201I$	$-6.90118+2.33671I$
$u=-0.298437-0.284498I$ $a=\ \ 0.72312+1.93166I$ $b=-0.388212-0.879733I$	$-3.46306+1.08201I$	$-6.90118-2.33671I$
$u=\ \ 0.232288+0.339454I$ $a=-2.95102+0.30891I$ $b=\ \ 0.161718-0.404964I$	$-0.84133+4.24331I$	$-4.56382-3.75528I$
$u=\ \ 0.232288-0.339454I$ $a=-2.95102-0.30891I$ $b=\ \ 0.161718+0.404964I$	$-0.84133-4.24331I$	$-4.56382+3.75528I$
$u=-0.163777+0.328240I$ $a=-0.339926+1.248850I$ $b=\ \ 0.092253+0.440028I$	$0.150148+0.981907I$	$2.74729-6.88100I$
$u=-0.163777-0.328240I$ $a=-0.339926-1.248850I$ $b=\ \ 0.092253-0.440028I$	$0.150148-0.981907I$	$2.74729+6.88100I$
$u=-0.334264+0.127751I$ $a=\ \ 1.07054+1.94531I$ $b=\ \ 0.081971+0.413525I$	$0.311391+0.999972I$	$0.90930-4.81258I$
$u=-0.334264-0.127751I$ $a=\ \ 1.07054-1.94531I$ $b=\ \ 0.081971-0.413525I$	$0.311391-0.999972I$	$0.90930+4.81258I$
$u=-0.183867+0.172355I$ $a=\ \ 2.54602+1.33773I$ $b=\ \ 0.17080+1.43660I$	$-0.98629-1.61388I$	$2.28734+4.84078I$
$u=-0.183867-0.172355I$ $a=\ \ 2.54602-1.33773I$ $b=\ \ 0.17080-1.43660I$	$-0.98629+1.61388I$	$2.28734-4.84078I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.185720+0.154950I$ $a=-1.93380-4.94041I$ $b=\ \ 0.136329+1.191260I$	$2.68654+8.47879I$	$1.23045-6.70789I$
$u=-0.185720-0.154950I$ $a=-1.93380+4.94041I$ $b=\ \ 0.136329-1.191260I$	$2.68654-8.47879I$	$1.23045+6.70789I$
$u=\ \ 2.00082+0.40115I$ $a=-0.214150-0.799893I$ $b=\ \ 0.41792+1.72055I$	$-7.56845-0.87082I$	0
$u=\ \ 2.00082-0.40115I$ $a=-0.214150+0.799893I$ $b=\ \ 0.41792-1.72055I$	$-7.56845+0.87082I$	0
$u=-2.09373+0.02995I$ $a=\ \ 0.059316-0.721313I$ $b=-0.49890+1.90563I$	$-5.68259-2.55465I$	0
$u=-2.09373-0.02995I$ $a=\ \ 0.059316+0.721313I$ $b=-0.49890-1.90563I$	$-5.68259+2.55465I$	0
$u=\ \ 2.10852+0.00032I$ $a=\ \ 0.028769+0.877656I$ $b=-0.61366-1.33060I$	$-9.43352+2.31093I$	0
$u=\ \ 2.10852-0.00032I$ $a=\ \ 0.028769-0.877656I$ $b=-0.61366+1.33060I$	$-9.43352-2.31093I$	0
$u=-2.28057+0.24594I$ $a=-0.054836+0.719976I$ $b=-0.23588-1.93061I$	$-7.58635+2.76111I$	0
$u=-2.28057-0.24594I$ $a=-0.054836-0.719976I$ $b=-0.23588+1.93061I$	$-7.58635-2.76111I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 2.27534 + 0.29106I$ $a = 0.028049 + 0.773187I$ $b = 0.12810 - 1.98850I$	$-10.56000 - 8.01521I$	0
$u = 2.27534 - 0.29106I$ $a = 0.028049 - 0.773187I$ $b = 0.12810 + 1.98850I$	$-10.56000 + 8.01521I$	0
$u = 2.29164 + 0.20640I$ $a = 0.140048 + 0.750160I$ $b = 0.14771 - 1.74394I$	$-12.40010 + 1.52484I$	0
$u = 2.29164 - 0.20640I$ $a = 0.140048 - 0.750160I$ $b = 0.14771 + 1.74394I$	$-12.40010 - 1.52484I$	0
$u = -2.31506 + 0.25454I$ $a = -0.037212 - 0.734956I$ $b = 0.71969 + 1.72452I$	$-2.28298 + 7.52055I$	0
$u = -2.31506 - 0.25454I$ $a = -0.037212 + 0.734956I$ $b = 0.71969 - 1.72452I$	$-2.28298 - 7.52055I$	0
$u = 2.37101 + 0.45768I$ $a = -0.270747 - 0.604903I$ $b = 0.22193 + 1.81314I$	$-6.89637 + 5.83330I$	0
$u = 2.37101 - 0.45768I$ $a = -0.270747 + 0.604903I$ $b = 0.22193 - 1.81314I$	$-6.89637 - 5.83330I$	0
$u = 2.43147 + 0.21360I$ $a = 0.094716 - 0.708934I$ $b = -0.59712 + 1.86521I$	$-4.9756 - 14.1776I$	0
$u = 2.43147 - 0.21360I$ $a = 0.094716 + 0.708934I$ $b = -0.59712 - 1.86521I$	$-4.9756 + 14.1776I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-2.45820+0.23118I$ $a=\quad 0.151599-0.573246I$ $b=-0.30016+1.95716I$	$-5.29494-1.56622I$	0
$u=-2.45820-0.23118I$ $a=\quad 0.151599+0.573246I$ $b=-0.30016-1.95716I$	$-5.29494+1.56622I$	0

II. $I_2^u = \langle -3.53\times10^{11}u^{17} - 1.98\times10^{12}u^{16} + \cdots + 2.77\times10^{10}b - 8.43\times10^{12},\ -9.26\times10^{12}u^{17} - 5.62\times10^{13}u^{16} + \cdots + 4.71\times10^{11}a - 2.84\times10^{14},\ u^{18} + 6u^{17} + \cdots + 137u + 17\rangle$

(i) Arc colorings

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

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

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

$$a_{10} = \begin{pmatrix}19.6647u^{17} + 119.440u^{16} + \cdots + 4444.89u + 602.160\\12.7379u^{17} + 71.6521u^{16} + \cdots + 2254.63u + 304.347\end{pmatrix}$$

$$a_9 = \begin{pmatrix}19.6647u^{17} + 119.440u^{16} + \cdots + 4444.89u + 602.160\\0.110913u^{17} + 7.21160u^{16} + \cdots + 1721.50u + 279.675\end{pmatrix}$$

$$a_5 = \begin{pmatrix}13.7009u^{17} + 72.2945u^{16} + \cdots + 1271.37u + 134.143\\-11.8163u^{17} - 47.6476u^{16} + \cdots + 2065.95u + 402.732\end{pmatrix}$$

$$a_1 = \begin{pmatrix}5.11275u^{17} + 16.1679u^{16} + \cdots - 2105.02u - 377.911\\20.5194u^{17} + 116.891u^{16} + \cdots + 3645.65u + 479.562\end{pmatrix}$$

$$a_8 = \begin{pmatrix}19.5538u^{17} + 112.228u^{16} + \cdots + 2723.39u + 322.485\\0.110913u^{17} + 7.21160u^{16} + \cdots + 1721.50u + 279.675\end{pmatrix}$$

$$a_7 = \begin{pmatrix}7.98918u^{17} + 34.4198u^{16} + \cdots - 1811.82u - 363.145\\-4.57845u^{17} - 13.0076u^{16} + \cdots + 2114.17u + 369.442\end{pmatrix}$$

$$a_{11} = \begin{pmatrix}-11.5058u^{17} - 77.4552u^{16} + \cdots - 4500.68u - 677.571\\41.3674u^{17} + 233.328u^{16} + \cdots + 6729.08u + 868.915\end{pmatrix}$$

$$a_6 = \begin{pmatrix}-31.6037u^{17} - 166.973u^{16} + \cdots - 3107.94u - 332.195\\3.73112u^{17} + 15.7034u^{16} + \cdots - 506.045u - 106.831\end{pmatrix}$$

$$a_2 = \begin{pmatrix}-15.4066u^{17} - 100.723u^{16} + \cdots - 5750.66u - 857.473\\20.5194u^{17} + 116.891u^{16} + \cdots + 3645.65u + 479.562\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes

$$= -\frac{1031347589724}{27696360721}u^{17} - \frac{7091677654231}{27696360721}u^{16} + \cdots - \frac{428423029545491}{27696360721}u - \frac{64866752095286}{27696360721}$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{18} - 12u^{17} + \cdots - 12u + 1$
c_2	$u^{18} - 2u^{17} + \cdots - 2u + 1$
c_3	$u^{18} + 6u^{17} + \cdots + 137u + 17$
c_4	$u^{18} + 6u^{16} + \cdots - u + 1$
c_5	$u^{18} + 11u^{16} + \cdots + 2u + 1$
c_6	$u^{18} + 2u^{17} + \cdots + 2u + 1$
c_7	$u^{18} - 4u^{17} + \cdots + 2u + 1$
c_8	$u^{18} + 3u^{16} + \cdots + 2u + 1$
c_9	$u^{18} + 10u^{16} + \cdots + 5u + 2$
c_{10}	$u^{18} + 4u^{17} + \cdots - 2u + 1$
c_{11}	$u^{18} + 11u^{16} + \cdots - 2u + 1$
c_{12}	$u^{18} + 10u^{16} + \cdots - 5u + 2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{18} - 8y^{16} + \cdots - 8y + 1$
c_2, c_6	$y^{18} + 12y^{17} + \cdots + 12y + 1$
c_3	$y^{18} - 8y^{17} + \cdots + 1189y + 289$
c_4	$y^{18} + 12y^{17} + \cdots - 5y + 1$
c_5, c_{11}	$y^{18} + 22y^{17} + \cdots - 6y + 1$
c_7, c_{10}	$y^{18} + 8y^{17} + \cdots - 6y + 1$
c_8	$y^{18} + 6y^{17} + \cdots + 10y + 1$
c_9, c_{12}	$y^{18} + 20y^{17} + \cdots + 39y + 4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.658686+0.580480I$ $a=\ \ 1.183330-0.453838I$ $b=\ \ 0.641287+0.684543I$	$-0.049129+0.479336I$	$-2.63779+0.48041I$
$u=-0.658686-0.580480I$ $a=\ \ 1.183330+0.453838I$ $b=\ \ 0.641287-0.684543I$	$-0.049129-0.479336I$	$-2.63779-0.48041I$
$u=-0.563352+0.585475I$ $a=-1.224900+0.583463I$ $b=\ \ 0.725527-0.651658I$	$6.30490-1.95106I$	$4.05302+5.53919I$
$u=-0.563352-0.585475I$ $a=-1.224900-0.583463I$ $b=\ \ 0.725527+0.651658I$	$6.30490+1.95106I$	$4.05302-5.53919I$
$u=-0.129010+0.740804I$ $a=-1.064850+0.763925I$ $b=-0.832283-0.109973I$	$0.36326+4.10768I$	$1.77356-5.10612I$
$u=-0.129010-0.740804I$ $a=-1.064850-0.763925I$ $b=-0.832283+0.109973I$	$0.36326-4.10768I$	$1.77356+5.10612I$
$u=-0.487501+0.501661I$ $a=\ \ 0.593618-0.000224I$ $b=\ \ 0.006490+1.141070I$	$-1.68671+0.57803I$	$-2.61647+0.05282I$
$u=-0.487501-0.501661I$ $a=\ \ 0.593618+0.000224I$ $b=\ \ 0.006490-1.141070I$	$-1.68671-0.57803I$	$-2.61647-0.05282I$
$u=-0.451462+0.525720I$ $a=\ \ 0.86844-1.65712I$ $b=-0.819153+0.224312I$	$3.90707-2.76377I$	$4.16735+1.82045I$
$u=-0.451462-0.525720I$ $a=\ \ 0.86844+1.65712I$ $b=-0.819153-0.224312I$	$3.90707+2.76377I$	$4.16735-1.82045I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.66448+1.54686I$ $a=-0.573045+0.032453I$ $b=-0.232872-0.694995I$	$6.81177-0.72306I$	$3.17550-0.34252I$
$u=-0.66448-1.54686I$ $a=-0.573045-0.032453I$ $b=-0.232872+0.694995I$	$6.81177+0.72306I$	$3.17550+0.34252I$
$u=0.14544+1.87487I$ $a=0.431442-0.149048I$ $b=0.575402-0.102615I$	$5.46183+5.97318I$	$0.92827-6.61935I$
$u=0.14544-1.87487I$ $a=0.431442+0.149048I$ $b=0.575402+0.102615I$	$5.46183-5.97318I$	$0.92827+6.61935I$
$u=2.14106+0.15296I$ $a=-0.118697-0.824657I$ $b=0.38314+1.44742I$	$-10.00120+1.52667I$	$-2.95677+1.29262I$
$u=2.14106-0.15296I$ $a=-0.118697+0.824657I$ $b=0.38314-1.44742I$	$-10.00120-1.52667I$	$-2.95677-1.29262I$
$u=-2.33202+0.08143I$ $a=0.081135-0.622597I$ $b=-0.44753+2.04634I$	$-6.17694-2.22783I$	$-8.88668+0.I$
$u=-2.33202-0.08143I$ $a=0.081135+0.622597I$ $b=-0.44753-2.04634I$	$-6.17694+2.22783I$	$-8.88668+0.I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{18}-12u^{17}+\cdots-12u+1)(u^{52}+29u^{51}+\cdots+1305u+49)$
c_2	$(u^{18}-2u^{17}+\cdots-2u+1)(u^{52}-3u^{51}+\cdots-33u+7)$
c_3	$(u^{18}+6u^{17}+\cdots+137u+17)(u^{52}-3u^{51}+\cdots+774u+41)$
c_4	$(u^{18}+6u^{16}+\cdots-u+1)(u^{52}+u^{51}+\cdots-6854u+3421)$
c_5	$(u^{18}+11u^{16}+\cdots+2u+1)(u^{52}+u^{51}+\cdots+67u+173)$
c_6	$(u^{18}+2u^{17}+\cdots+2u+1)(u^{52}-3u^{51}+\cdots-33u+7)$
c_7	$(u^{18}-4u^{17}+\cdots+2u+1)(u^{52}-5u^{51}+\cdots-175u+43)$
c_8	$(u^{18}+3u^{16}+\cdots+2u+1)(u^{52}-u^{51}+\cdots+35897u+98677)$
c_9	$(u^{18}+10u^{16}+\cdots+5u+2)(u^{52}+u^{51}+\cdots-164u+14)$
c_{10}	$(u^{18}+4u^{17}+\cdots-2u+1)(u^{52}-5u^{51}+\cdots-175u+43)$
c_{11}	$(u^{18}+11u^{16}+\cdots-2u+1)(u^{52}+u^{51}+\cdots+67u+173)$
c_{12}	$(u^{18}+10u^{16}+\cdots-5u+2)(u^{52}+u^{51}+\cdots-164u+14)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{18}-8y^{16}+\cdots-8y+1)(y^{52}+y^{51}+\cdots-11839y+2401)$
c_2, c_6	$(y^{18}+12y^{17}+\cdots+12y+1)(y^{52}+29y^{51}+\cdots+1305y+49)$
c_3	$(y^{18}-8y^{17}+\cdots+1189y+289)(y^{52}-91y^{51}+\cdots-17778y+1681)$
c_4	$(y^{18}+12y^{17}+\cdots-5y+1)$ $\cdot(y^{52}+65y^{51}+\cdots+435342632y+11703241)$
c_5, c_{11}	$(y^{18}+22y^{17}+\cdots-6y+1)(y^{52}+47y^{51}+\cdots+156055y+29929)$
c_7, c_{10}	$(y^{18}+8y^{17}+\cdots-6y+1)(y^{52}+21y^{51}+\cdots+50043y+1849)$
c_8	$(y^{18}+6y^{17}+\cdots+10y+1)$ $\cdot(y^{52}+71y^{51}+\cdots+159369402631y+9737150329)$
c_9, c_{12}	$(y^{18}+20y^{17}+\cdots+39y+4)(y^{52}+65y^{51}+\cdots+1188y+196)$