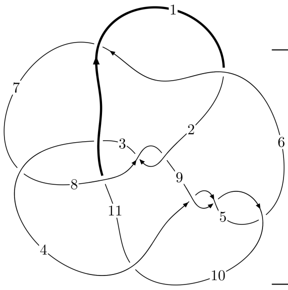
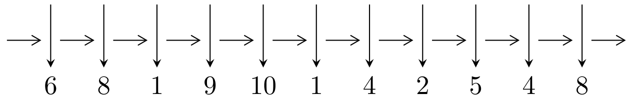
$11n_{180}$ ($K11n_{180}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 4u^{15} - 51u^{14} + \cdots + 4b - 164,\ -41u^{15} + 460u^{14} + \cdots + 32a + 944,\ u^{16} - 12u^{15} + \cdots - 360u^2 + 32\rangle$$

$$I_2^u = \langle u^8 + 2u^7 + 3u^2 + b + 1,\ -u^8 - 2u^7 + u^6 + 2u^5 - u^4 - 2u^3 - 2u^2 + a + u,$$
$$u^9 + 3u^8 + u^7 - 2u^6 + u^5 + 2u^4 + 2u^3 + 2u^2 + 1\rangle$$

$$I_3^u = \langle 39a^9u - 16a^8u + \cdots + 108a + 311,\ a^9u + 8a^8u + \cdots - 58a + 53,\ u^2 + u - 1\rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 45 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. $\boldsymbol{I_1^u = \langle 4u^{15} - 51u^{14} + \cdots + 4b - 164,\ -41u^{15} + 460u^{14} + \cdots + 32a + 944,\ u^{16} - 12u^{15} + \cdots - 360u^2 + 32\rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} \frac{41}{32}u^{15} - \frac{115}{8}u^{14} + \cdots - 17u - \frac{59}{2} \\ -u^{15} + \frac{51}{4}u^{14} + \cdots + \frac{59}{2}u + 41 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -\frac{1}{32}u^{15} + \frac{5}{16}u^{14} + \cdots - \frac{45}{8}u^2 + 1 \\ \frac{1}{16}u^{15} - \frac{5}{8}u^{14} + \cdots + \frac{41}{4}u^2 - 1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} \frac{7}{16}u^{15} - \frac{51}{16}u^{14} + \cdots + \frac{47}{4}u + \frac{15}{2} \\ -\frac{101}{16}u^{15} + \frac{519}{8}u^{14} + \cdots + \frac{79}{2}u + 102 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} \frac{9}{32}u^{15} - \frac{13}{8}u^{14} + \cdots + \frac{25}{2}u + \frac{23}{2} \\ -u^{15} + \frac{51}{4}u^{14} + \cdots + \frac{59}{2}u + 41 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} \frac{9}{32}u^{15} - \frac{13}{8}u^{14} + \cdots + \frac{25}{2}u + \frac{23}{2} \\ -\frac{11}{2}u^{15} + 58u^{14} + \cdots + \frac{77}{2}u + 97 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -\frac{31}{32}u^{15} + \frac{171}{16}u^{14} + \cdots + 31u + 31 \\ \frac{15}{16}u^{15} - \frac{83}{8}u^{14} + \cdots - 30u - 31 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -\frac{1}{32}u^{15} + \frac{5}{16}u^{14} + \cdots - \frac{45}{8}u^2 + u \\ \frac{15}{16}u^{15} - \frac{83}{8}u^{14} + \cdots - 30u - 31 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -\frac{33}{16}u^{15} + \frac{41}{2}u^{14} + \cdots + u + 26 \\ \frac{11}{4}u^{15} - \frac{223}{8}u^{14} + \cdots - 11u - 40 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -\frac{33}{16}u^{15} + \frac{41}{2}u^{14} + \cdots + u + 26 \\ \frac{11}{4}u^{15} - \frac{223}{8}u^{14} + \cdots - 11u - 40 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -6u^{15} + 56u^{14} - 242u^{13} + 661u^{12} - 1316u^{11} + 2028u^{10} - 2382u^9 + 1918u^8 - 581u^7 - 1069u^6 + 2137u^5 - 2069u^4 + 1166u^3 - 265u^2 - 60u - 2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_6 c_8	$u^{16} + 3u^{14} + \cdots - 3u - 1$
c_3	$u^{16} - 12u^{15} + \cdots - 360u^2 + 32$
c_4, c_5, c_9	$u^{16} - 5u^{15} + \cdots - 10u - 4$
c_7, c_{11}	$u^{16} + u^{15} + \cdots - 4u - 1$
c_{10}	$u^{16} + 15u^{15} + \cdots + 1722u + 196$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6 c_8	$y^{16} + 6y^{15} + \cdots - 5y + 1$
c_3	$y^{16} - 10y^{15} + \cdots - 23040y + 1024$
c_4, c_5, c_9	$y^{16} - 15y^{15} + \cdots - 140y + 16$
c_7, c_{11}	$y^{16} - 27y^{15} + \cdots - 36y + 1$
c_{10}	$y^{16} - 3y^{15} + \cdots - 394156y + 38416$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.937606$ $a=-0.432873$ $b=-0.405864$	-5.72940	-16.4540
$u=\ \ 0.646210+0.969563I$ $a=-0.294430+0.642409I$ $b=\ \ 0.813119-0.129662I$	$-0.44623-2.35749I$	$-11.39443+1.24540I$
$u=\ \ 0.646210-0.969563I$ $a=-0.294430-0.642409I$ $b=\ \ 0.813119+0.129662I$	$-0.44623+2.35749I$	$-11.39443-1.24540I$
$u=\ \ 0.132048+1.204660I$ $a=\ \ 0.014404-0.499826I$ $b=-0.604023+0.048649I$	$2.97261+1.81783I$	$-9.12623-4.02809I$
$u=\ \ 0.132048-1.204660I$ $a=\ \ 0.014404+0.499826I$ $b=-0.604023-0.048649I$	$2.97261-1.81783I$	$-9.12623+4.02809I$
$u=\ \ 1.312260+0.342243I$ $a=\ \ 1.36980-0.44221I$ $b=-1.94888+0.11150I$	$-11.54010-0.83768I$	$-14.6260+5.7551I$
$u=\ \ 1.312260-0.342243I$ $a=\ \ 1.36980+0.44221I$ $b=-1.94888-0.11150I$	$-11.54010+0.83768I$	$-14.6260-5.7551I$
$u=-0.27007+1.38948I$ $a=\ \ 0.071515+0.368633I$ $b=\ \ 0.531520+0.000186I$	$-1.44057+5.86096I$	$-14.3345-7.4758I$
$u=-0.27007-1.38948I$ $a=\ \ 0.071515-0.368633I$ $b=\ \ 0.531520-0.000186I$	$-1.44057-5.86096I$	$-14.3345+7.4758I$
$u=\ \ 1.45999+0.54919I$ $a=-1.051980+0.234978I$ $b=\ \ 1.66492+0.23467I$	$-3.42042-3.44951I$	$-11.26032+2.20716I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.45999 - 0.54919I$ $a = -1.051980 - 0.234978I$ $b = 1.66492 - 0.23467I$	$-3.42042 + 3.44951I$	$-11.26032 - 2.20716I$
$u = 1.61124 + 0.53845I$ $a = 1.041830 - 0.051732I$ $b = -1.70649 - 0.47762I$	$-2.13858 - 8.47484I$	$-10.02725 + 6.22402I$
$u = 1.61124 - 0.53845I$ $a = 1.041830 + 0.051732I$ $b = -1.70649 + 0.47762I$	$-2.13858 + 8.47484I$	$-10.02725 - 6.22402I$
$u = 1.68493 + 0.47840I$ $a = -1.090820 - 0.055715I$ $b = 1.81129 + 0.61572I$	$-7.9978 - 12.6965I$	$-13.6924 + 6.6132I$
$u = 1.68493 - 0.47840I$ $a = -1.090820 + 0.055715I$ $b = 1.81129 - 0.61572I$	$-7.9978 + 12.6965I$	$-13.6924 - 6.6132I$
$u = -0.215621$ $a = 1.31222$ $b = 0.282943$	-0.531160	-18.6230

II. $\boldsymbol{I_2^u = \langle u^8 + 2u^7 + 3u^2 + b + 1,\ -u^8 - 2u^7 + \cdots + a + u,\ u^9 + 3u^8 + u^7 - 2u^6 + u^5 + 2u^4 + 2u^3 + 2u^2 + 1\rangle}$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4u^8 - 9u^7 + 3u^6 + 10u^5 - 5u^4 - 5u^3 - 4u^2 - 2u - 5$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$u^9 + 3u^7 + u^6 + 2u^5 + 2u^4 - u^3 + u^2 - u - 1$
c_2, c_6	$u^9 + 3u^7 - u^6 + 2u^5 - 2u^4 - u^3 - u^2 - u + 1$
c_3	$u^9 + 3u^8 + u^7 - 2u^6 + u^5 + 2u^4 + 2u^3 + 2u^2 + 1$
c_4, c_5	$u^9 - 5u^7 + 8u^5 + u^4 - 3u^3 - 2u^2 - 2u + 1$
c_7, c_{11}	$u^9 - u^8 - u^7 - u^6 - 2u^5 + 2u^4 - u^3 + 3u^2 + 1$
c_9	$u^9 - 5u^7 + 8u^5 - u^4 - 3u^3 + 2u^2 - 2u - 1$
c_{10}	$u^9 - u^7 + 8u^6 - 4u^5 + 5u^4 - 2u^3 + 3u^2 - 2u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6 c_8	$y^9 + 6y^8 + 13y^7 + 9y^6 - 8y^5 - 16y^4 - 5y^3 + 5y^2 + 3y - 1$
c_3	$y^9 - 7y^8 + 15y^7 - 10y^6 + y^5 + 2y^4 - 8y^2 - 4y - 1$
c_4, c_5, c_9	$y^9 - 10y^8 + 41y^7 - 86y^6 + 90y^5 - 29y^4 - 19y^3 + 6y^2 + 8y - 1$
c_7, c_{11}	$y^9 - 3y^8 - 5y^7 + 5y^6 + 16y^5 + 8y^4 - 9y^3 - 13y^2 - 6y - 1$
c_{10}	$y^9 - 2y^8 - 7y^7 - 60y^6 - 64y^5 - 53y^4 + 6y^3 + 9y^2 + 10y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.901563 + 0.564856I$ $a = 0.432004 + 0.508675I$ $b = 0.102151 + 0.702622I$	$1.79239 - 1.81153I$	$-9.80943 + 3.54546I$
$u = 0.901563 - 0.564856I$ $a = 0.432004 - 0.508675I$ $b = 0.102151 - 0.702622I$	$1.79239 + 1.81153I$	$-9.80943 - 3.54546I$
$u = -0.291663 + 0.753926I$ $a = 0.866867 - 0.853127I$ $b = 0.390361 + 0.902380I$	$-0.28529 + 4.77597I$	$-8.22483 - 4.15931I$
$u = -0.291663 - 0.753926I$ $a = 0.866867 + 0.853127I$ $b = 0.390361 - 0.902380I$	$-0.28529 - 4.77597I$	$-8.22483 + 4.15931I$
$u = -1.27478$ $a = 1.49648$ $b = -1.90768$	-11.1241	-11.2460
$u = 0.233182 + 0.559961I$ $a = -1.39335 - 0.25566I$ $b = -0.181746 - 0.839836I$	$4.84522 + 1.19732I$	$-2.35469 - 1.53706I$
$u = 0.233182 - 0.559961I$ $a = -1.39335 + 0.25566I$ $b = -0.181746 + 0.839836I$	$4.84522 - 1.19732I$	$-2.35469 + 1.53706I$
$u = -1.54182$ $a = -0.881123$ $b = 1.35854$	-4.17989	-9.50990
$u = -1.86956$ $a = 0.573604$ $b = -1.07239$	-7.27021	-22.4660

III.

$\boldsymbol{I_3^u = \langle 39a^9u - 16a^8u + \cdots + 108a + 311,\ a^9u + 8a^8u + \cdots - 58a + 53,\ u^2 + u - 1\rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ u-1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} a \\ -7.80000a^9u + 3.20000a^8u + \cdots - 21.6000a - 62.2000 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -5.40000a^9u + 5.60000a^8u + \cdots + 18.2000a + 40.4000 \\ -a^2u + a^2 + 2u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -14a^9u + 3a^8u + \cdots + 24a + 48 \\ -12.8000a^9u + 2.20000a^8u + \cdots + 13.4000a + 22.8000 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -7.80000a^9u + 3.20000a^8u + \cdots - 20.6000a - 62.2000 \\ -7.80000a^9u + 3.20000a^8u + \cdots - 21.6000a - 62.2000 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -7.80000a^9u + 3.20000a^8u + \cdots - 20.6000a - 62.2000 \\ 13.4000a^9u - 2.60000a^8u + \cdots - 19.2000a - 35.4000 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} a^2u \\ -8.20000a^9u + 10.8000a^8u + \cdots - 5.40000a - 28.8000 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -8.20000a^9u + 10.8000a^8u + \cdots - 5.40000a - 28.8000 \\ -8.20000a^9u + 10.8000a^8u + \cdots - 5.40000a - 28.8000 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -3.20000a^9u + 4.80000a^8u + \cdots - 13.4000a - 30.8000 \\ -1.60000a^9u + 2.40000a^8u + \cdots - 7.20000a - 14.4000 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -3.20000a^9u + 4.80000a^8u + \cdots - 13.4000a - 30.8000 \\ -1.60000a^9u + 2.40000a^8u + \cdots - 7.20000a - 14.4000 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{92}{5}a^9u + \frac{172}{5}a^8u + \cdots - \frac{376}{5}a - \frac{1102}{5}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_6 c_8	$u^{20} - u^{19} + \cdots - 42u - 1$
c_3	$(u^2 + u - 1)^{10}$
c_4, c_5, c_9	$(u^5 + u^4 - 2u^3 - u^2 + u - 1)^4$
c_7, c_{11}	$u^{20} + u^{19} + \cdots + 40u - 29$
c_{10}	$(u^5 - 3u^4 + 4u^3 - u^2 - u + 1)^4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6 c_8	$y^{20} + 7y^{19} + \cdots - 1772y + 1$
c_3	$(y^2 - 3y + 1)^{10}$
c_4, c_5, c_9	$(y^5 - 5y^4 + 8y^3 - 3y^2 - y - 1)^4$
c_7, c_{11}	$y^{20} - 13y^{19} + \cdots - 12736y + 841$
c_{10}	$(y^5 - y^4 + 8y^3 - 3y^2 + 3y - 1)^4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.618034$ $a = 0.677607+0.002824I$ $b = -0.129907+1.332380I$	$3.61874-1.53058I$	$-10.51511+4.43065I$
$u = 0.618034$ $a = 0.677607-0.002824I$ $b = -0.129907-1.332380I$	$3.61874+1.53058I$	$-10.51511-4.43065I$
$u = 0.618034$ $a = -1.147360+0.672981I$ $b = 0.02823-1.52596I$	$-1.92472-4.40083I$	$-14.7443+3.4986I$
$u = 0.618034$ $a = -1.147360-0.672981I$ $b = 0.02823+1.52596I$	$-1.92472+4.40083I$	$-14.7443-3.4986I$
$u = 0.618034$ $a = -1.00379+1.46626I$ $b = 0.620375+0.906196I$	1.54676	$-11.48114+0.I$
$u = 0.618034$ $a = -1.00379-1.46626I$ $b = 0.620375-0.906196I$	1.54676	$-11.48114+0.I$
$u = 0.618034$ $a = 0.21019+2.15583I$ $b = -0.418784+0.001745I$	$3.61874+1.53058I$	$-10.51511-4.43065I$
$u = 0.618034$ $a = 0.21019-2.15583I$ $b = -0.418784-0.001745I$	$3.61874-1.53058I$	$-10.51511+4.43065I$
$u = 0.618034$ $a = -0.04567+2.46906I$ $b = 0.709108-0.415925I$	$-1.92472-4.40083I$	$-14.7443+3.4986I$
$u = 0.618034$ $a = -0.04567-2.46906I$ $b = 0.709108+0.415925I$	$-1.92472+4.40083I$	$-14.7443-3.4986I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.61803$ $a = \quad 0.972088 + 0.050869I$ $b = -1.36329 + 0.42595I$	$-4.27694 + 1.53058I$	$-10.51511 - 4.43065I$
$u = -1.61803$ $a = \quad 0.972088 - 0.050869I$ $b = -1.36329 - 0.42595I$	$-4.27694 - 1.53058I$	$-10.51511 + 4.43065I$
$u = -1.61803$ $a = \quad 0.950790 + 0.411274I$ $b = -1.82005 + 0.07628I$	$-9.82040 - 4.40083I$	$-14.7443 + 3.4986I$
$u = -1.61803$ $a = \quad 0.950790 - 0.411274I$ $b = -1.82005 - 0.07628I$	$-9.82040 + 4.40083I$	$-14.7443 - 3.4986I$
$u = -1.61803$ $a = -0.842560 + 0.263250I$ $b = \quad 1.57287 + 0.08231I$	$-4.27694 + 1.53058I$	$-10.51511 - 4.43065I$
$u = -1.61803$ $a = -0.842560 - 0.263250I$ $b = \quad 1.57287 - 0.08231I$	$-4.27694 - 1.53058I$	$-10.51511 + 4.43065I$
$u = -1.61803$ $a = -1.124850 + 0.047143I$ $b = \quad 1.53841 + 0.66546I$	$-9.82040 - 4.40083I$	$-14.7443 + 3.4986I$
$u = -1.61803$ $a = -1.124850 - 0.047143I$ $b = \quad 1.53841 - 0.66546I$	$-9.82040 + 4.40083I$	$-14.7443 - 3.4986I$
$u = -1.61803$ $a = -0.790561$ $b = \quad 0.805229$	-6.34892	-11.4810
$u = -1.61803$ $a = \quad 0.497659$ $b = -1.27915$	-6.34892	-11.4810

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_8	$(u^9+3u^7+\cdots-u-1)(u^{16}+3u^{14}+\cdots-3u-1)$ $\cdot(u^{20}-u^{19}+\cdots-42u-1)$
c_2, c_6	$(u^9+3u^7+\cdots-u+1)(u^{16}+3u^{14}+\cdots-3u-1)$ $\cdot(u^{20}-u^{19}+\cdots-42u-1)$
c_3	$(u^2+u-1)^{10}(u^9+3u^8+u^7-2u^6+u^5+2u^4+2u^3+2u^2+1)$ $\cdot(u^{16}-12u^{15}+\cdots-360u^2+32)$
c_4, c_5	$((u^5+u^4-2u^3-u^2+u-1)^4)(u^9-5u^7+\cdots-2u+1)$ $\cdot(u^{16}-5u^{15}+\cdots-10u-4)$
c_7, c_{11}	$(u^9-u^8+\cdots+3u^2+1)(u^{16}+u^{15}+\cdots-4u-1)$ $\cdot(u^{20}+u^{19}+\cdots+40u-29)$
c_9	$((u^5+u^4-2u^3-u^2+u-1)^4)(u^9-5u^7+\cdots-2u-1)$ $\cdot(u^{16}-5u^{15}+\cdots-10u-4)$
c_{10}	$(u^5-3u^4+4u^3-u^2-u+1)^4$ $\cdot(u^9-u^7+8u^6-4u^5+5u^4-2u^3+3u^2-2u-1)$ $\cdot(u^{16}+15u^{15}+\cdots+1722u+196)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6 c_8	$(y^9+6y^8+13y^7+9y^6-8y^5-16y^4-5y^3+5y^2+3y-1)$ $\cdot(y^{16}+6y^{15}+\cdots-5y+1)(y^{20}+7y^{19}+\cdots-1772y+1)$
c_3	$(y^2-3y+1)^{10}(y^9-7y^8+15y^7-10y^6+y^5+2y^4-8y^2-4y-1)$ $\cdot(y^{16}-10y^{15}+\cdots-23040y+1024)$
c_4, c_5, c_9	$(y^5-5y^4+8y^3-3y^2-y-1)^4$ $\cdot(y^9-10y^8+41y^7-86y^6+90y^5-29y^4-19y^3+6y^2+8y-1)$ $\cdot(y^{16}-15y^{15}+\cdots-140y+16)$
c_7, c_{11}	$(y^9-3y^8-5y^7+5y^6+16y^5+8y^4-9y^3-13y^2-6y-1)$ $\cdot(y^{16}-27y^{15}+\cdots-36y+1)(y^{20}-13y^{19}+\cdots-12736y+841)$
c_{10}	$(y^5-y^4+8y^3-3y^2+3y-1)^4$ $\cdot(y^9-2y^8-7y^7-60y^6-64y^5-53y^4+6y^3+9y^2+10y-1)$ $\cdot(y^{16}-3y^{15}+\cdots-394156y+38416)$