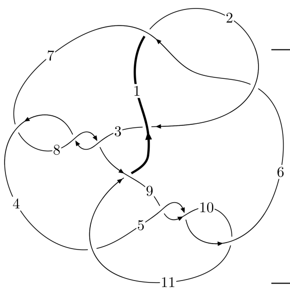
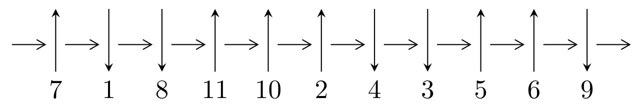
$11a_{199}$ ($K11a_{199}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I^u_1 = \langle 2u^{39} - 2u^{38} + \cdots + 4b - 2,\ -u^{38} + 17u^{36} + \cdots + 4a + 2,\ u^{40} - 2u^{39} + \cdots + u + 2\rangle$$

$$I^u_2 = \langle 7u^4a^2 + 43u^4a + \cdots - 99a + 30,$$
$$2u^4a^2 + 2u^3a^2 - u^4a - 2a^2u^2 + 4u^3a + a^3 - 2a^2u + 3u^2a - 7au + 2a + u - 2,\ u^5 + u^4 - 2u^3 - u^2 + u - 1\rangle$$

$$I^u_3 = \langle -u^5 + 2u^3 + b - u,\ u^3 - u^2 + a - u + 1,\ u^6 - 3u^4 + 2u^2 + 1\rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 61 representations.

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[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.

$\boldsymbol{I_1^u = \langle 2u^{39}-2u^{38}+\cdots+4b-2,\ -u^{38}+17u^{36}+\cdots+4a+2,\ u^{40}-2u^{39}+\cdots+u+2\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u \\ -u^3+u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^2+1 \\ u^4-2u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^4+u^2+1 \\ u^4-2u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} \frac{1}{4}u^{38}-\frac{17}{4}u^{36}+\cdots-\frac{1}{2}u-\frac{1}{2} \\ -\frac{1}{2}u^{39}+\frac{1}{2}u^{38}+\cdots+\frac{5}{4}u+\frac{1}{2} \end{pmatrix}$$
$$a_2 = \begin{pmatrix} \frac{1}{2}u^{39}-\frac{33}{4}u^{37}+\cdots-\frac{1}{4}u-2 \\ -u^{39}+u^{38}+\cdots+\frac{3}{2}u+1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^5+2u^3-u \\ u^7-3u^5+2u^3+u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -\frac{1}{4}u^{33}+\frac{7}{2}u^{31}+\cdots+\frac{5}{4}u+1 \\ \frac{1}{4}u^{33}-\frac{15}{4}u^{31}+\cdots-\frac{1}{2}u^2+\frac{1}{2}u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -\frac{1}{2}u^{39}+9u^{37}+\cdots+\frac{13}{4}u+2 \\ -\frac{3}{4}u^{36}+12u^{34}+\cdots+\frac{1}{2}u-1 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -\frac{1}{2}u^{39}+9u^{37}+\cdots+\frac{13}{4}u+2 \\ -\frac{3}{4}u^{36}+12u^{34}+\cdots+\frac{1}{2}u-1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes

$= -2u^{39}+36u^{37}+4u^{36}-292u^{35}-68u^{34}+1400u^{33}+516u^{32}-4364u^{31}-2288u^{30}+9120u^{29}+6502u^{28}-12568u^{27}-12162u^{26}+10398u^{25}+14642u^{24}-3354u^{23}-10260u^{22}-1742u^{21}+2820u^{20}+1100u^{19}+554u^{18}+1126u^{17}+310u^{16}-880u^{15}-734u^{14}-336u^{13}-82u^{12}+494u^{11}+512u^{10}-42u^{9}-430u^{8}-250u^{7}+90u^{6}+172u^{5}+102u^{4}+6u^{3}-2u^{2}+6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{40} + u^{39} + \cdots + 16u + 5$
c_2	$u^{40} + 15u^{39} + \cdots + 224u + 25$
c_3, c_7, c_8	$u^{40} + u^{39} + \cdots + 26u + 5$
c_4	$u^{40} + 6u^{39} + \cdots + 160u + 128$
c_5, c_9, c_{10}	$u^{40} - 2u^{39} + \cdots + u + 2$
c_{11}	$u^{40} - 8u^{39} + \cdots - 3945u + 1016$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{40} + 15y^{39} + \cdots + 224y + 25$
c_2	$y^{40} + 27y^{39} + \cdots + 14224y + 625$
c_3, c_7, c_8	$y^{40} + 43y^{39} + \cdots - 576y + 25$
c_4	$y^{40} - 4y^{39} + \cdots + 23552y + 16384$
c_5, c_9, c_{10}	$y^{40} - 36y^{39} + \cdots + 19y + 4$
c_{11}	$y^{40} + 16y^{39} + \cdots + 17349279y + 1032256$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.132680 + 0.164833I$ $a = -0.558909 - 0.184032I$ $b = -0.608652 - 0.139154I$	$-0.49925 - 3.31648I$	$-1.64724 + 4.89716I$
$u = -1.132680 - 0.164833I$ $a = -0.558909 + 0.184032I$ $b = -0.608652 + 0.139154I$	$-0.49925 + 3.31648I$	$-1.64724 - 4.89716I$
$u = 0.665458 + 0.491027I$ $a = 0.181179 + 0.948992I$ $b = -0.26041 - 1.45828I$	$5.75631 - 5.93546I$	$5.14838 + 2.56129I$
$u = 0.665458 - 0.491027I$ $a = 0.181179 - 0.948992I$ $b = -0.26041 + 1.45828I$	$5.75631 + 5.93546I$	$5.14838 - 2.56129I$
$u = 0.336380 + 0.742311I$ $a = 1.85503 + 0.61503I$ $b = 0.31157 - 1.46130I$	$4.58807 + 10.21880I$	$2.84113 - 7.75802I$
$u = 0.336380 - 0.742311I$ $a = 1.85503 - 0.61503I$ $b = 0.31157 + 1.46130I$	$4.58807 - 10.21880I$	$2.84113 + 7.75802I$
$u = 1.148420 + 0.314124I$ $a = -1.045320 - 0.767765I$ $b = -0.184002 + 1.355880I$	$4.23075 + 6.09808I$	$4.98979 - 6.57054I$
$u = 1.148420 - 0.314124I$ $a = -1.045320 + 0.767765I$ $b = -0.184002 - 1.355880I$	$4.23075 - 6.09808I$	$4.98979 + 6.57054I$
$u = -0.379059 + 0.695927I$ $a = -1.66096 + 0.88347I$ $b = -0.20263 - 1.47527I$	$6.64060 - 4.34123I$	$5.66048 + 3.73746I$
$u = -0.379059 - 0.695927I$ $a = -1.66096 - 0.88347I$ $b = -0.20263 + 1.47527I$	$6.64060 + 4.34123I$	$5.66048 - 3.73746I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.564420 + 0.541568I$ $a = -0.566896 + 1.146240I$ $b = 0.13026 - 1.47688I$	$7.33749 + 0.16034I$	$7.10861 + 2.53050I$
$u = -0.564420 - 0.541568I$ $a = -0.566896 - 1.146240I$ $b = 0.13026 + 1.47688I$	$7.33749 - 0.16034I$	$7.10861 - 2.53050I$
$u = 0.056460 + 0.762597I$ $a = 0.009786 + 0.725772I$ $b = 0.115987 + 1.331210I$	$0.89197 - 2.16729I$	$1.73023 + 3.02653I$
$u = 0.056460 - 0.762597I$ $a = 0.009786 - 0.725772I$ $b = 0.115987 - 1.331210I$	$0.89197 + 2.16729I$	$1.73023 - 3.02653I$
$u = -0.311434 + 0.675248I$ $a = 1.124050 - 0.679341I$ $b = 0.808027 + 0.336204I$	$-1.19660 - 6.15509I$	$-0.81548 + 8.05631I$
$u = -0.311434 - 0.675248I$ $a = 1.124050 + 0.679341I$ $b = 0.808027 - 0.336204I$	$-1.19660 + 6.15509I$	$-0.81548 - 8.05631I$
$u = -1.267540 + 0.308667I$ $a = 0.914279 - 0.732791I$ $b = -0.048919 + 1.307620I$	$4.99451 - 1.70471I$	$6.96107 + 0.I$
$u = -1.267540 - 0.308667I$ $a = 0.914279 + 0.732791I$ $b = -0.048919 - 1.307620I$	$4.99451 + 1.70471I$	$6.96107 + 0.I$
$u = -1.334840 + 0.143127I$ $a = 0.664581 - 1.202350I$ $b = 0.284491 + 0.929637I$	$5.15475 - 3.01598I$	$9.37714 + 4.67947I$
$u = -1.334840 - 0.143127I$ $a = 0.664581 + 1.202350I$ $b = 0.284491 - 0.929637I$	$5.15475 + 3.01598I$	$9.37714 - 4.67947I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.117413 + 0.644564I$ $a = 0.825462 - 1.029330I$ $b = 0.429397 - 0.050528I$	$-3.45598 + 0.23711I$	$-7.22744 + 0.24322I$
$u = -0.117413 - 0.644564I$ $a = 0.825462 + 1.029330I$ $b = 0.429397 + 0.050528I$	$-3.45598 - 0.23711I$	$-7.22744 - 0.24322I$
$u = -0.525465 + 0.378936I$ $a = -0.201594 + 0.316704I$ $b = -0.675269 + 0.380878I$	$-0.15865 + 2.49460I$	$1.76474 - 2.69354I$
$u = -0.525465 - 0.378936I$ $a = -0.201594 - 0.316704I$ $b = -0.675269 - 0.380878I$	$-0.15865 - 2.49460I$	$1.76474 + 2.69354I$
$u = 1.335420 + 0.239501I$ $a = -0.182679 - 1.103330I$ $b = -0.313407 + 0.070374I$	$1.11209 + 2.95109I$	0
$u = 1.335420 - 0.239501I$ $a = -0.182679 + 1.103330I$ $b = -0.313407 - 0.070374I$	$1.11209 - 2.95109I$	0
$u = 1.42739 + 0.15745I$ $a = -0.498107 - 0.387169I$ $b = 0.731038 + 0.551180I$	$5.86273 - 0.50813I$	0
$u = 1.42739 - 0.15745I$ $a = -0.498107 + 0.387169I$ $b = 0.731038 - 0.551180I$	$5.86273 + 0.50813I$	0
$u = 1.42572 + 0.26112I$ $a = -0.184246 - 1.165150I$ $b = -0.872768 + 0.360378I$	$4.36673 + 9.57310I$	0
$u = 1.42572 - 0.26112I$ $a = -0.184246 + 1.165150I$ $b = -0.872768 - 0.360378I$	$4.36673 - 9.57310I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.44310+0.28746I$ $a=-1.64649+2.14222I$ $b=-0.33802-1.48174I$	$10.2925-13.9644I$	0
$u=-1.44310-0.28746I$ $a=-1.64649-2.14222I$ $b=-0.33802+1.48174I$	$10.2925+13.9644I$	0
$u=1.45342+0.26173I$ $a=1.46189+2.36452I$ $b=0.23852-1.51103I$	$12.5309+7.8320I$	0
$u=1.45342-0.26173I$ $a=1.46189-2.36452I$ $b=0.23852+1.51103I$	$12.5309-7.8320I$	0
$u=-1.48259+0.12271I$ $a=-0.23184+2.45383I$ $b=0.22820-1.52392I$	$12.67960+3.94897I$	0
$u=-1.48259-0.12271I$ $a=-0.23184-2.45383I$ $b=0.22820+1.52392I$	$12.67960-3.94897I$	0
$u=1.47893+0.16568I$ $a=0.54665+2.57861I$ $b=-0.09835-1.54844I$	$13.93280+2.32178I$	0
$u=1.47893-0.16568I$ $a=0.54665-2.57861I$ $b=-0.09835+1.54844I$	$13.93280-2.32178I$	0
$u=0.230955+0.365705I$ $a=-1.055850+0.160049I$ $b=-0.175073+0.673486I$	$0.344977+1.063350I$	$4.35668-6.80283I$
$u=0.230955-0.365705I$ $a=-1.055850-0.160049I$ $b=-0.175073-0.673486I$	$0.344977-1.063350I$	$4.35668+6.80283I$

II. $I_2^u = \langle 7u^4a^2 + 43u^4a + \cdots - 99a + 30,\ 2u^4a^2 - u^4a + \cdots + 2a - 2,\ u^5 + u^4 - 2u^3 - u^2 + u - 1\rangle$

(i) Arc colorings

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

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^2 + 1 \\ u^4 - 2u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^4 + u^2 + 1 \\ u^4 - 2u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} a \\ -0.0445860a^2u^4 - 0.273885au^4 + \cdots + 0.630573a - 0.191083 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.184713a^2u^4 + 0.579618au^4 + \cdots - 0.101911a + 0.636943 \\ -0.280255a^2u^4 - 1.29299au^4 + \cdots + 1.53503a - 0.343949 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u^4 - u^2 - 1 \\ -u^4 + 2u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.00636943a^2u^4 + 0.675159au^4 + \cdots + 0.375796a + 1.40127 \\ -0.312102a^2u^4 + 0.0828025au^4 + \cdots + 0.414013a + 0.662420 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.305732a^2u^4 + 1.59236au^4 + \cdots - 0.0382166a + 0.738854 \\ -0.707006a^2u^4 - 0.0573248au^4 + \cdots + 0.713376a + 1.54140 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.305732a^2u^4 + 1.59236au^4 + \cdots - 0.0382166a + 0.738854 \\ -0.707006a^2u^4 - 0.0573248au^4 + \cdots + 0.713376a + 1.54140 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u^3 - 8u + 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_6 c_7, c_8	$u^{15} + 5u^{13} + \cdots + u - 1$
c_2	$u^{15} + 10u^{14} + \cdots - u - 1$
c_4	$(u^5 - 3u^4 + 4u^3 - u^2 - u + 1)^3$
c_5, c_9, c_{10}	$(u^5 + u^4 - 2u^3 - u^2 + u - 1)^3$
c_{11}	$(u^5 - u^4 + 2u^3 - u^2 + u - 1)^3$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_6 c_7, c_8	$y^{15} + 10y^{14} + \cdots - y - 1$
c_2	$y^{15} - 10y^{14} + \cdots - y - 1$
c_4	$(y^5 - y^4 + 8y^3 - 3y^2 + 3y - 1)^3$
c_5, c_9, c_{10}	$(y^5 - 5y^4 + 8y^3 - 3y^2 - y - 1)^3$
c_{11}	$(y^5 + 3y^4 + 4y^3 + y^2 - y - 1)^3$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.21774$ $a = 0.219220$ $b = 0.575861$	2.40108	3.48110
$u = 1.21774$ $a = -1.41369 + 1.25295I$ $b = -0.287931 - 1.117460I$	2.40108	3.48110
$u = 1.21774$ $a = -1.41369 - 1.25295I$ $b = -0.287931 + 1.117460I$	2.40108	3.48110
$u = 0.309916 + 0.549911I$ $a = -1.058440 - 0.528425I$ $b = -0.557720 + 0.484088I$	$0.32910 + 1.53058I$	$2.51511 - 4.43065I$
$u = 0.309916 + 0.549911I$ $a = 0.019615 + 0.534502I$ $b = 0.472368 + 0.804368I$	$0.32910 + 1.53058I$	$2.51511 - 4.43065I$
$u = 0.309916 + 0.549911I$ $a = 1.89592 + 2.07247I$ $b = 0.085352 - 1.288460I$	$0.32910 + 1.53058I$	$2.51511 - 4.43065I$
$u = 0.309916 - 0.549911I$ $a = -1.058440 + 0.528425I$ $b = -0.557720 - 0.484088I$	$0.32910 - 1.53058I$	$2.51511 + 4.43065I$
$u = 0.309916 - 0.549911I$ $a = 0.019615 - 0.534502I$ $b = 0.472368 - 0.804368I$	$0.32910 - 1.53058I$	$2.51511 + 4.43065I$
$u = 0.309916 - 0.549911I$ $a = 1.89592 - 2.07247I$ $b = 0.085352 + 1.288460I$	$0.32910 - 1.53058I$	$2.51511 + 4.43065I$
$u = -1.41878 + 0.21917I$ $a = 0.620947 - 0.505783I$ $b = -0.614910 + 0.840475I$	$5.87256 - 4.40083I$	$6.74431 + 3.49859I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.41878 + 0.21917I$ $a = 0.243546 - 1.207590I$ $b = 0.712111 + 0.537643I$	$5.87256 - 4.40083I$	$6.74431 + 3.49859I$
$u = -1.41878 + 0.21917I$ $a = -1.41751 + 3.16984I$ $b = -0.097201 - 1.378120I$	$5.87256 - 4.40083I$	$6.74431 + 3.49859I$
$u = -1.41878 - 0.21917I$ $a = 0.620947 + 0.505783I$ $b = -0.614910 - 0.840475I$	$5.87256 + 4.40083I$	$6.74431 - 3.49859I$
$u = -1.41878 - 0.21917I$ $a = 0.243546 + 1.207590I$ $b = 0.712111 - 0.537643I$	$5.87256 + 4.40083I$	$6.74431 - 3.49859I$
$u = -1.41878 - 0.21917I$ $a = -1.41751 - 3.16984I$ $b = -0.097201 + 1.378120I$	$5.87256 + 4.40083I$	$6.74431 - 3.49859I$

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

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

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_6 c_7, c_8	$(y+1)^6$
c_2	$(y-1)^6$
c_4	$(y^3+y^2+2y+1)^2$
c_5, c_9, c_{10}	$(y^3-3y^2+2y+1)^2$
c_{11}	$(y^3-y^2+2y-1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.307140 + 0.215080I$ $a = -0.082503 - 0.315159I$ $b = 1.000000I$	$3.02413 + 2.82812I$	$3.50976 - 2.97945I$
$u = 1.307140 - 0.215080I$ $a = -0.082503 + 0.315159I$ $b = -1.000000I$	$3.02413 - 2.82812I$	$3.50976 + 2.97945I$
$u = -1.307140 + 0.215080I$ $a = 1.40722 - 1.43972I$ $b = 1.000000I$	$3.02413 - 2.82812I$	$3.50976 + 2.97945I$
$u = -1.307140 - 0.215080I$ $a = 1.40722 + 1.43972I$ $b = -1.000000I$	$3.02413 + 2.82812I$	$3.50976 - 2.97945I$
$u = 0.569840I$ $a = -1.32472 + 0.75488I$ $b = 1.000000I$	-1.11345	-3.01950
$u = -0.569840I$ $a = -1.32472 - 0.75488I$ $b = -1.000000I$	-1.11345	-3.01950

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$((u^2+1)^3)(u^{15}+5u^{13}+\cdots+u-1)(u^{40}+u^{39}+\cdots+16u+5)$
c_2	$((u+1)^6)(u^{15}+10u^{14}+\cdots-u-1)(u^{40}+15u^{39}+\cdots+224u+25)$
c_3, c_7, c_8	$((u^2+1)^3)(u^{15}+5u^{13}+\cdots+u-1)(u^{40}+u^{39}+\cdots+26u+5)$
c_4	$(u^5-3u^4+4u^3-u^2-u+1)^3(u^6+u^4+2u^2+1)$ $\cdot(u^{40}+6u^{39}+\cdots+160u+128)$
c_5, c_9, c_{10}	$(u^5+u^4-2u^3-u^2+u-1)^3(u^6-3u^4+2u^2+1)$ $\cdot(u^{40}-2u^{39}+\cdots+u+2)$
c_{11}	$(u^3-u^2+1)^2(u^5-u^4+2u^3-u^2+u-1)^3$ $\cdot(u^{40}-8u^{39}+\cdots-3945u+1016)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$((y+1)^6)(y^{15}+10y^{14}+\cdots-y-1)(y^{40}+15y^{39}+\cdots+224y+25)$
c_2	$((y-1)^6)(y^{15}-10y^{14}+\cdots-y-1)(y^{40}+27y^{39}+\cdots+14224y+625)$
c_3, c_7, c_8	$((y+1)^6)(y^{15}+10y^{14}+\cdots-y-1)(y^{40}+43y^{39}+\cdots-576y+25)$
c_4	$(y^3+y^2+2y+1)^2(y^5-y^4+8y^3-3y^2+3y-1)^3$ $\cdot(y^{40}-4y^{39}+\cdots+23552y+16384)$
c_5, c_9, c_{10}	$(y^3-3y^2+2y+1)^2(y^5-5y^4+8y^3-3y^2-y-1)^3$ $\cdot(y^{40}-36y^{39}+\cdots+19y+4)$
c_{11}	$(y^3-y^2+2y-1)^2(y^5+3y^4+4y^3+y^2-y-1)^3$ $\cdot(y^{40}+16y^{39}+\cdots+17349279y+1032256)$