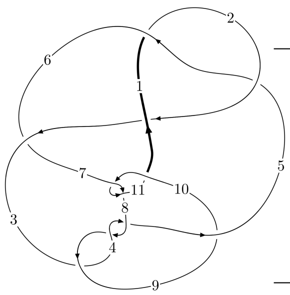
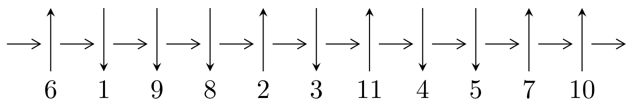
$11a_{87}$ $(K11a_{87})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -2.76827 \times 10^{20} u^{65} - 3.94428 \times 10^{20} u^{64} + \cdots + 3.38827 \times 10^{20} b - 3.37636 \times 10^{20},$$
$$1.46899 \times 10^{21} u^{65} + 7.18335 \times 10^{20} u^{64} + \cdots + 2.03296 \times 10^{21} a - 4.01396 \times 10^{21},\ u^{66} + 2u^{65} + \cdots + 9u + 3$$
$$I_2^u = \langle b - 1,\ a^2 - 2au + 2a + u - 2,\ u^2 - u + 1 \rangle$$
$$I_3^u = \langle b - 1,\ a + u + 1,\ u^2 + u + 1 \rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 72 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.

$$I_1^u = \langle -2.77\times10^{20}u^{65} - 3.94\times10^{20}u^{64} + \cdots + 3.39\times10^{20}b - 3.38\times10^{20},\ 1.47\times10^{21}u^{65} + 7.18\times10^{20}u^{64} + \cdots + 2.03\times10^{21}a - 4.01\times10^{21},\ u^{66} + 2u^{65} + \cdots + 9u + 3\rangle$$

(i) Arc colorings

$$a_1 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_6 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_2 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_3 = \begin{pmatrix}u^2+1\\-u^2\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-u^5-2u^3-u\\u^5+u^3+u\end{pmatrix}$$
$$a_5 = \begin{pmatrix}-u\\u^3+u\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}-0.722586u^{65} - 0.353344u^{64} + \cdots + 4.62019u + 1.97444\\0.817018u^{65} + 1.16410u^{64} + \cdots + 3.14431u + 0.996486\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-0.240968u^{65} + 0.706381u^{64} + \cdots + 8.22401u + 3.27525\\0.769366u^{65} + 0.828277u^{64} + \cdots + 1.85375u - 0.0148534\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}0.621466u^{65} + 1.92904u^{64} + \cdots + 12.3901u + 5.69831\\0.738277u^{65} + 0.691862u^{64} + \cdots + 0.186232u - 1.40925\end{pmatrix}$$
$$a_8 = \begin{pmatrix}0.00495114u^{65} + 0.779268u^{64} + \cdots + 4.72824u + 1.89831\\1.18832u^{65} + 1.94777u^{64} + \cdots + 5.44396u + 0.722904\end{pmatrix}$$
$$a_4 = \begin{pmatrix}1.01619u^{65} + 2.39037u^{64} + \cdots + 8.96868u + 4.74556\\0.357982u^{65} - 0.423891u^{64} + \cdots - 4.40018u - 3.04858\end{pmatrix}$$
$$a_4 = \begin{pmatrix}1.01619u^{65} + 2.39037u^{64} + \cdots + 8.96868u + 4.74556\\0.357982u^{65} - 0.423891u^{64} + \cdots - 4.40018u - 3.04858\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{637819945328403808339}{338826759075039659107}u^{65} + \frac{1108465925103697174201}{338826759075039659107}u^{64} + \cdots + \frac{385243538031322074970 3}{338826759075039659107}u + \frac{473140454884407107541}{338826759075039659107}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{66} - 2u^{65} + \cdots - 9u + 3$
c_2	$u^{66} + 32u^{65} + \cdots + 33u + 9$
c_3, c_4, c_8	$u^{66} + u^{65} + \cdots + 16u + 4$
c_6	$u^{66} + 2u^{65} + \cdots + 9195u + 2391$
c_7, c_{10}	$u^{66} - 3u^{65} + \cdots - 16u + 3$
c_9	$u^{66} - u^{65} + \cdots - 64u + 548$
c_{11}	$u^{66} - 33u^{65} + \cdots - 4u + 9$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{66} + 32y^{65} + \cdots + 33y + 9$
c_2	$y^{66} + 8y^{65} + \cdots + 873y + 81$
c_3, c_4, c_8	$y^{66} + 61y^{65} + \cdots - 128y + 16$
c_6	$y^{66} - 16y^{65} + \cdots - 60107223y + 5716881$
c_7, c_{10}	$y^{66} - 33y^{65} + \cdots - 4y + 9$
c_9	$y^{66} + y^{65} + \cdots - 1284224y + 300304$
c_{11}	$y^{66} + 7y^{65} + \cdots - 2176y + 81$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.755953 + 0.642253I$ $a = -1.50344 - 0.99906I$ $b = 0.91082 + 1.08246I$	$7.19005 + 6.79978I$	$5.09513 - 6.93835I$
$u = 0.755953 - 0.642253I$ $a = -1.50344 + 0.99906I$ $b = 0.91082 - 1.08246I$	$7.19005 - 6.79978I$	$5.09513 + 6.93835I$
$u = 0.381443 + 0.962354I$ $a = 1.84405 - 1.05401I$ $b = 0.434581 - 0.385324I$	$5.19371 + 1.45398I$	0
$u = 0.381443 - 0.962354I$ $a = 1.84405 + 1.05401I$ $b = 0.434581 + 0.385324I$	$5.19371 - 1.45398I$	0
$u = -0.673098 + 0.678865I$ $a = -1.193220 + 0.537398I$ $b = 0.813918 - 0.796640I$	$1.97562 - 3.83931I$	$0.43158 + 7.99484I$
$u = -0.673098 - 0.678865I$ $a = -1.193220 - 0.537398I$ $b = 0.813918 + 0.796640I$	$1.97562 + 3.83931I$	$0.43158 - 7.99484I$
$u = 0.638302 + 0.703727I$ $a = 1.149350 + 0.463060I$ $b = -0.200847 - 0.267724I$	$4.99477 + 2.60395I$	$2.08066 - 2.86296I$
$u = 0.638302 - 0.703727I$ $a = 1.149350 - 0.463060I$ $b = -0.200847 + 0.267724I$	$4.99477 - 2.60395I$	$2.08066 + 2.86296I$
$u = -0.316058 + 1.015530I$ $a = -0.80720 - 1.18230I$ $b = 1.59297 - 0.23810I$	$4.37513 - 0.91344I$	0
$u = -0.316058 - 1.015530I$ $a = -0.80720 + 1.18230I$ $b = 1.59297 + 0.23810I$	$4.37513 + 0.91344I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.629972 + 0.864578I$ $a = 0.282045 - 0.437369I$ $b = 0.105832 + 0.332549I$	$4.56888 + 2.29703I$	0
$u = 0.629972 - 0.864578I$ $a = 0.282045 + 0.437369I$ $b = 0.105832 - 0.332549I$	$4.56888 - 2.29703I$	0
$u = -0.827182 + 0.359098I$ $a = -1.48252 - 1.13505I$ $b = 1.00026 + 1.36192I$	$5.59217 + 9.84151I$	$4.35993 - 5.90567I$
$u = -0.827182 - 0.359098I$ $a = -1.48252 + 1.13505I$ $b = 1.00026 - 1.36192I$	$5.59217 - 9.84151I$	$4.35993 + 5.90567I$
$u = -0.615669 + 0.911613I$ $a = 0.149118 - 1.152950I$ $b = 0.719356 + 0.533955I$	$1.29731 - 1.14051I$	0
$u = -0.615669 - 0.911613I$ $a = 0.149118 + 1.152950I$ $b = 0.719356 - 0.533955I$	$1.29731 + 1.14051I$	0
$u = 0.484610 + 1.022030I$ $a = -0.59263 + 1.37966I$ $b = 1.48883 - 0.30554I$	$1.07785 + 3.02843I$	0
$u = 0.484610 - 1.022030I$ $a = -0.59263 - 1.37966I$ $b = 1.48883 + 0.30554I$	$1.07785 - 3.02843I$	0
$u = 0.789237 + 0.311182I$ $a = -1.14249 + 0.91939I$ $b = 0.83658 - 1.26862I$	$0.08192 - 6.09483I$	$0.06758 + 5.72110I$
$u = 0.789237 - 0.311182I$ $a = -1.14249 - 0.91939I$ $b = 0.83658 + 1.26862I$	$0.08192 + 6.09483I$	$0.06758 - 5.72110I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.772578 + 0.300651I$ $a = 1.43595 + 0.47376I$ $b = -0.606077 - 0.508848I$	$3.05327 + 4.56939I$	$1.49874 - 2.48258I$
$u = -0.772578 - 0.300651I$ $a = 1.43595 - 0.47376I$ $b = -0.606077 + 0.508848I$	$3.05327 - 4.56939I$	$1.49874 + 2.48258I$
$u = -0.327983 + 1.126830I$ $a = 0.973843 + 0.583016I$ $b = 0.256425 + 1.074870I$	$-2.37023 - 1.02641I$	0
$u = -0.327983 - 1.126830I$ $a = 0.973843 - 0.583016I$ $b = 0.256425 - 1.074870I$	$-2.37023 + 1.02641I$	0
$u = 0.666510 + 0.972232I$ $a = 0.23112 + 1.62158I$ $b = 0.834491 - 0.957996I$	$6.21106 - 1.42535I$	0
$u = 0.666510 - 0.972232I$ $a = 0.23112 - 1.62158I$ $b = 0.834491 + 0.957996I$	$6.21106 + 1.42535I$	0
$u = -0.254618 + 1.152190I$ $a = 0.308382 - 0.112718I$ $b = -0.492338 - 0.741909I$	$-1.45645 + 1.57837I$	0
$u = -0.254618 - 1.152190I$ $a = 0.308382 + 0.112718I$ $b = -0.492338 + 0.741909I$	$-1.45645 - 1.57837I$	0
$u = 0.530812 + 1.055770I$ $a = -1.34138 + 2.03995I$ $b = 0.816422 + 0.889494I$	$6.42459 + 4.74081I$	0
$u = 0.530812 - 1.055770I$ $a = -1.34138 - 2.03995I$ $b = 0.816422 - 0.889494I$	$6.42459 - 4.74081I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.241965 + 1.161020I$ $a = 0.593783 - 0.497940I$ $b = 0.56461 - 1.30292I$	$-4.56064 - 3.10867I$	0
$u = 0.241965 - 1.161020I$ $a = 0.593783 + 0.497940I$ $b = 0.56461 + 1.30292I$	$-4.56064 + 3.10867I$	0
$u = -0.179712 + 1.178530I$ $a = 0.312033 + 0.454932I$ $b = 0.80836 + 1.39012I$	$0.48993 + 7.02185I$	0
$u = -0.179712 - 1.178530I$ $a = 0.312033 - 0.454932I$ $b = 0.80836 - 1.39012I$	$0.48993 - 7.02185I$	0
$u = 0.337552 + 1.150340I$ $a = 0.029903 + 0.280018I$ $b = -0.229833 + 0.947989I$	$-5.71596 + 2.27676I$	0
$u = 0.337552 - 1.150340I$ $a = 0.029903 - 0.280018I$ $b = -0.229833 - 0.947989I$	$-5.71596 - 2.27676I$	0
$u = -0.441361 + 1.120500I$ $a = 1.302260 + 0.531091I$ $b = -0.196410 + 0.826154I$	$-2.36959 - 1.62048I$	0
$u = -0.441361 - 1.120500I$ $a = 1.302260 - 0.531091I$ $b = -0.196410 - 0.826154I$	$-2.36959 + 1.62048I$	0
$u = -0.539438 + 1.080200I$ $a = -0.58267 - 1.65912I$ $b = 1.64758 + 0.62868I$	$5.95344 - 5.84050I$	0
$u = -0.539438 - 1.080200I$ $a = -0.58267 + 1.65912I$ $b = 1.64758 - 0.62868I$	$5.95344 + 5.84050I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.416062 + 1.153030I$ $a = -0.417211 - 0.486945I$ $b = 0.078553 - 1.146340I$	$-2.51166 - 6.30368I$	0
$u = -0.416062 - 1.153030I$ $a = -0.417211 + 0.486945I$ $b = 0.078553 + 1.146340I$	$-2.51166 + 6.30368I$	0
$u = -0.529988 + 1.122110I$ $a = -1.43472 - 1.07430I$ $b = 0.70216 - 1.23357I$	$-0.97780 - 6.67256I$	0
$u = -0.529988 - 1.122110I$ $a = -1.43472 + 1.07430I$ $b = 0.70216 + 1.23357I$	$-0.97780 + 6.67256I$	0
$u = 0.515018 + 1.137380I$ $a = 1.42983 - 0.56620I$ $b = -0.550564 - 0.698729I$	$-4.51086 + 5.70416I$	0
$u = 0.515018 - 1.137380I$ $a = 1.42983 + 0.56620I$ $b = -0.550564 + 0.698729I$	$-4.51086 - 5.70416I$	0
$u = 0.595919 + 0.445110I$ $a = -1.71034 - 0.58122I$ $b = 1.032560 - 0.749088I$	$8.21032 - 0.24162I$	$6.87319 + 1.62100I$
$u = 0.595919 - 0.445110I$ $a = -1.71034 + 0.58122I$ $b = 1.032560 + 0.749088I$	$8.21032 + 0.24162I$	$6.87319 - 1.62100I$
$u = -0.634539 + 0.386396I$ $a = -2.62691 + 0.09834I$ $b = 1.45210 - 0.62541I$	$7.96080 + 1.22074I$	$6.79923 - 0.85488I$
$u = -0.634539 - 0.386396I$ $a = -2.62691 - 0.09834I$ $b = 1.45210 + 0.62541I$	$7.96080 - 1.22074I$	$6.79923 + 0.85488I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=\ 0.495446+0.549605I$ $a=-1.81945+0.43460I$ $b=\ 1.158230+0.508717I$	$2.51441+1.02533I$	$3.07736+2.06010I$
$u=\ 0.495446-0.549605I$ $a=-1.81945-0.43460I$ $b=\ 1.158230-0.508717I$	$2.51441-1.02533I$	$3.07736-2.06010I$
$u=-0.279936+0.676376I$ $a=\ 0.982603-0.117408I$ $b=-0.148031-0.060354I$	$-0.280767-1.133580I$	$-3.39541+6.11783I$
$u=-0.279936-0.676376I$ $a=\ 0.982603+0.117408I$ $b=-0.148031+0.060354I$	$-0.280767+1.133580I$	$-3.39541-6.11783I$
$u=-0.560271+1.138380I$ $a=\ 1.48877+0.66169I$ $b=-0.742454+0.556217I$	$0.59224-9.57146I$	0
$u=-0.560271-1.138380I$ $a=\ 1.48877-0.66169I$ $b=-0.742454-0.556217I$	$0.59224+9.57146I$	0
$u=\ 0.702291+0.195645I$ $a=\ 1.088270-0.495569I$ $b=-0.323516+0.616413I$	$-1.84194-1.10470I$	$-3.59487+1.11336I$
$u=\ 0.702291-0.195645I$ $a=\ 1.088270+0.495569I$ $b=-0.323516-0.616413I$	$-1.84194+1.10470I$	$-3.59487-1.11336I$
$u=-0.673885+0.269171I$ $a=-0.765242-0.266085I$ $b=\ 0.709105+0.972863I$	$1.45545+2.02266I$	$2.54801-0.95165I$
$u=-0.673885-0.269171I$ $a=-0.765242+0.266085I$ $b=\ 0.709105-0.972863I$	$1.45545-2.02266I$	$2.54801+0.95165I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.568245 + 1.141590I$ $a = -1.88642 + 0.84516I$ $b = 0.87554 + 1.41049I$	$-2.37082 + 11.17440I$	0
$u = 0.568245 - 1.141590I$ $a = -1.88642 - 0.84516I$ $b = 0.87554 - 1.41049I$	$-2.37082 - 11.17440I$	0
$u = -0.596220 + 1.140020I$ $a = -2.20616 - 0.82618I$ $b = 1.03862 - 1.45053I$	$3.2588 - 15.1381I$	0
$u = -0.596220 - 1.140020I$ $a = -2.20616 + 0.82618I$ $b = 1.03862 + 1.45053I$	$3.2588 + 15.1381I$	0
$u = -0.694677 + 0.021213I$ $a = 0.410694 - 0.577612I$ $b = 0.112167 + 0.890796I$	$0.77779 + 2.28714I$	$0.68771 - 3.78757I$
$u = -0.694677 - 0.021213I$ $a = 0.410694 + 0.577612I$ $b = 0.112167 - 0.890796I$	$0.77779 - 2.28714I$	$0.68771 + 3.78757I$

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

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

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

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

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u \\ u-1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} a \\ 1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u-1 \\ au+2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} a+1 \\ 1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -a \\ -1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -au+u-1 \\ au-a+2u-1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -au+u-1 \\ au-a+2u-1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

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

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.500000 + 0.866025I$ $a = 0.724745 + 0.158919I$ $b = 1.00000$	$6.57974 + 2.02988I$	$6.00000 - 3.46410I$
$u = 0.500000 + 0.866025I$ $a = -1.72474 + 1.57313I$ $b = 1.00000$	$6.57974 + 2.02988I$	$6.00000 - 3.46410I$
$u = 0.500000 - 0.866025I$ $a = 0.724745 - 0.158919I$ $b = 1.00000$	$6.57974 - 2.02988I$	$6.00000 + 3.46410I$
$u = 0.500000 - 0.866025I$ $a = -1.72474 - 1.57313I$ $b = 1.00000$	$6.57974 - 2.02988I$	$6.00000 + 3.46410I$

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 4u+2$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.500000 + 0.866025I$ $a = -0.500000 - 0.866025I$ $b = \quad 1.00000$	$1.64493 - 2.02988I$	$0. + 3.46410I$
$u = -0.500000 - 0.866025I$ $a = -0.500000 + 0.866025I$ $b = \quad 1.00000$	$1.64493 + 2.02988I$	$0. - 3.46410I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^2-u+1)^2)(u^2+u+1)(u^{66}-2u^{65}+\cdots-9u+3)$
c_2	$((u^2+u+1)^3)(u^{66}+32u^{65}+\cdots+33u+9)$
c_3, c_4, c_8	$u^2(u^2+2)^2(u^{66}+u^{65}+\cdots+16u+4)$
c_5	$(u^2-u+1)(u^2+u+1)^2(u^{66}-2u^{65}+\cdots-9u+3)$
c_6	$((u^2-u+1)^2)(u^2+u+1)(u^{66}+2u^{65}+\cdots+9195u+2391)$
c_7	$((u-1)^4)(u+1)^2(u^{66}-3u^{65}+\cdots-16u+3)$
c_9	$u^2(u^2+2)^2(u^{66}-u^{65}+\cdots-64u+548)$
c_{10}	$((u-1)^2)(u+1)^4(u^{66}-3u^{65}+\cdots-16u+3)$
c_{11}	$((u-1)^6)(u^{66}-33u^{65}+\cdots-4u+9)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$((y^2+y+1)^3)(y^{66}+32y^{65}+\cdots+33y+9)$
c_2	$((y^2+y+1)^3)(y^{66}+8y^{65}+\cdots+873y+81)$
c_3, c_4, c_8	$y^2(y+2)^4(y^{66}+61y^{65}+\cdots-128y+16)$
c_6	$((y^2+y+1)^3)(y^{66}-16y^{65}+\cdots-6.01072\times10^7y+5716881)$
c_7, c_{10}	$((y-1)^6)(y^{66}-33y^{65}+\cdots-4y+9)$
c_9	$y^2(y+2)^4(y^{66}+y^{65}+\cdots-1284224y+300304)$
c_{11}	$((y-1)^6)(y^{66}+7y^{65}+\cdots-2176y+81)$