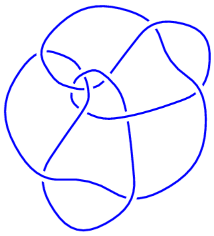
$11n_{162}$ ($K11n_{162}$)



1

Arc Sequences

$\uparrow$	$\downarrow$	$\downarrow$	$\downarrow$	$\downarrow$	$\downarrow$	$\downarrow$	$\downarrow$	$\uparrow$	$\downarrow$	$\downarrow$
10	5	1	7	10	3	11	5	3	8	4

Solving Sequence

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

Representation Ideals

$$I = \bigcap_{i=1}^{4} I_i^u$$

$$I_1^u = \langle u^6 - 7u^5 + 18u^4 - 22u^3 + 15u^2 - 5u + 1,\ -2u^5 + 13u^4 - 29u^3 + 27u^2 + a - 12u,$$
$$- u^5 + 7u^4 - 17u^3 + 18u^2 + b - 10u + 2\rangle$$
$$I_2^u = \langle b^6 + 2b^5 + 4b^4 + 6b^3 + 6b^2 + 5b + 3,\ -b^4 - 2b^3 - 3b^2 - 3b + u - 1,\ -b^5 - 2b^4 - 4b^3 - 5b^2 - 5b + a - 4\rangle$$
$$I_3^u = \langle u^{13} - 24u^{12} + \cdots - 2016u + 480,$$
$$- 219031775u^{12} + 4687623230u^{11} + \cdots + 903641744b + 43146415952,$$
$$- 2696650997u^{12} + 58148670678u^{11} + \cdots + 27109252320a + 610906263072\rangle$$
$$I_4^u = \langle b^{26} - 3b^{25} + \cdots - 9b + 1,$$
$$- 280010027772943b^{25} + 640188464864309u + \cdots - 90455062501765 06b + 911334568428454,$$
$$1931825958972041b^{25} - 5354645722954962b^{24} + \cdots + 1920565394592927a - 4009504723628393\rangle$$

There are 4 irreducible components with 51 representations.

[1] The knot diagram image is adapter from "C. Livingston and A. H. Moore, KnotInfo: Table of Knot Invariants, http://www.indiana.edu/ knotinfo"

I. $\boldsymbol{I^u_1 = \langle u^6 - 7u^5 + 18u^4 - 22u^3 + 15u^2 - 5u + 1,\ -2u^5 + 13u^4 - 29u^3 + 27u^2 + a - 12u,\ -u^5 + 7u^4 - 17u^3 + 18u^2 + b - 10u + 2\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 2u^5 - 13u^4 + 29u^3 - 27u^2 + 12u \\ u^5 - 7u^4 + 17u^3 - 18u^2 + 10u - 2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^5 - 6u^4 + 12u^3 - 9u^2 + 2u + 2 \\ u^5 - 7u^4 + 17u^3 - 18u^2 + 10u - 2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -2u^5 + 14u^4 - 35u^3 + 39u^2 - 22u + 5 \\ -u^3 + 4u^2 - 4u + 2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 2u^5 - 14u^4 + 36u^3 - 43u^2 + 26u - 6 \\ u^3 - 4u^2 + 5u - 2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -3u^5 + 20u^4 - 47u^3 + 48u^2 - 24u + 3 \\ -u^5 + 8u^4 - 22u^3 + 26u^2 - 15u + 3 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u^4 + 7u^3 - 17u^2 + 17u - 7 \\ u^3 - 4u^2 + 5u - 3 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 2u^5 - 13u^4 + 29u^3 - 27u^2 + 12u \\ u^5 - 6u^4 + 13u^3 - 13u^2 + 7u - 1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u^4 + 7u^3 - 17u^2 + 17u - 7 \\ -u^5 + 7u^4 - 17u^3 + 17u^2 - 7u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^4 - 7u^3 + 17u^2 - 17u + 7 \\ u^5 - 6u^4 + 12u^3 - 9u^2 + 2u + 2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^4 - 7u^3 + 17u^2 - 17u + 7 \\ u^5 - 6u^4 + 12u^3 - 9u^2 + 2u + 2 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes =**unknown**

(iv) Complex Volumes and Cusp Shapes

Solution to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.211778 - 0.330391I$ $a = 2.74807 - 0.64577I$ $b = 0.368622 - 1.044697I$	$9.91965 + 2.91185I$	$-0.22592 - 3.63955I$
$u = 0.211778 + 0.330391I$ $a = 2.74807 + 0.64577I$ $b = 0.368622 + 1.044697I$	$9.91965 - 2.91185I$	$-0.22592 + 3.63955I$
$u = 0.717525 - 0.672354I$ $a = -0.033577 - 0.670495I$ $b = -0.474902 - 0.458521I$	$-1.33814 - 0.90202I$	$-11.17385 + 4.13696I$
$u = 0.717525 + 0.672354I$ $a = -0.033577 + 0.670495I$ $b = -0.474902 + 0.458521I$	$-1.33814 + 0.90202I$	$-11.17385 - 4.13696I$
$u = 2.57070 - 0.32705I$ $a = -0.214491 + 0.482108I$ $b = -0.393720 + 1.309502I$	$4.57797 + 6.62522I$	$-5.60023 - 6.47362I$
$u = 2.57070 + 0.32705I$ $a = -0.214491 - 0.482108I$ $b = -0.393720 - 1.309502I$	$4.57797 - 6.62522I$	$-5.60023 + 6.47362I$

II. $I_2^u = \langle b^6+2b^5+4b^4+6b^3+6b^2+5b+3,\ -b^4-2b^3-3b^2-3b+u-1,\ -b^5-2b^4-4b^3-5b^2-5b+a-4\rangle$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes =unknown

(iv) Complex Volumes and Cusp Shapes

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.426050 + 0.368989I$ $a = \quad 1.62708 - 1.36745I$ $b = -1.044140 - 0.390425I$	$1.07850 + 1.58317I$	$-4.02349 - 3.48462I$
$u = -0.426050 - 0.368989I$ $a = \quad 1.62708 + 1.36745I$ $b = -1.044140 + 0.390425I$	$1.07850 - 1.58317I$	$-4.02349 + 3.48462I$
$u = -0.426050 - 0.368989I$ $a = \quad 0.94687 - 1.73644I$ $b = -0.188646 - 1.182977I$	$1.07850 - 1.58317I$	$-4.02349 + 3.48462I$
$u = -0.426050 + 0.368989I$ $a = \quad 0.94687 + 1.73644I$ $b = -0.188646 + 1.182977I$	$1.07850 + 1.58317I$	$-4.02349 - 3.48462I$
$u = -3.14790$ $a = -0.073950 - 0.405345I$ $b = \quad 0.232786 - 1.275985I$	11.0025	−0.953017
$u = -3.14790$ $a = -0.073950 + 0.405345I$ $b = \quad 0.232786 + 1.275985I$	11.0025	−0.953017

III. $\boldsymbol{I^u_3 = \langle u^{13} - 24u^{12} + \cdots - 2016u + 480,\ -2.19 \times 10^8 u^{12} + 4.69 \times 10^9 u^{11} + \cdots + 9.04 \times 10^8 b + 4.31 \times 10^{10},\ -2.70 \times 10^9 u^{12} + 5.81 \times 10^{10} u^{11} + \cdots + 2.71 \times 10^{10} a + 6.11 \times 10^{11}\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.0994735u^{12} - 2.14498u^{11} + \cdots + 88.4038u - 22.5350 \\ 0.242388u^{12} - 5.18748u^{11} + \cdots + 178.004u - 47.7473 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.142914u^{12} + 3.04250u^{11} + \cdots - 89.5997u + 25.2123 \\ 0.242388u^{12} - 5.18748u^{11} + \cdots + 178.004u - 47.7473 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.0565209u^{12} + 1.24812u^{11} + \cdots - 52.9216u + 15.8826 \\ 0.105111u^{12} - 2.30917u^{11} + \cdots + 89.5168u - 23.3232 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.0485900u^{12} + 1.06105u^{11} + \cdots - 36.5952u + 8.44059 \\ -0.105111u^{12} + 2.30917u^{11} + \cdots - 88.5168u + 23.3232 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.0843754u^{12} - 1.82264u^{11} + \cdots + 66.1376u - 17.2594 \\ -0.0111211u^{12} + 0.349662u^{11} + \cdots - 36.7390u + 9.95305 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.129345u^{12} + 2.74183u^{11} + \cdots - 75.8747u + 22.8445 \\ 0.211793u^{12} - 4.54561u^{11} + \cdots + 159.148u - 42.2710 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.0994735u^{12} - 2.14498u^{11} + \cdots + 88.4038u - 22.5350 \\ -0.387441u^{12} + 8.27096u^{11} + \cdots - 262.903u + 68.5989 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.178070u^{12} - 3.82028u^{11} + \cdots + 130.508u - 33.6483 \\ -0.453399u^{12} + 9.71423u^{11} + \cdots - 325.341u + 85.4737 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.0943531u^{12} + 1.98564u^{11} + \cdots - 55.2274u + 15.3443 \\ 0.504250u^{12} - 10.7447u^{11} + \cdots + 352.239u - 92.3938 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.0943531u^{12} + 1.98564u^{11} + \cdots - 55.2274u + 15.3443 \\ 0.504250u^{12} - 10.7447u^{11} + \cdots + 352.239u - 92.3938 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes =**unknown**

(iv) Complex Volumes and Cusp Shapes

Solution to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.696637$ $a = 0.314085$ $b = -0.218803$	-0.973187	-8.95549
$u = 0.199032 - 0.612878I$ $a = 0.561529 + 1.138335I$ $b = 0.809423 - 0.117584I$	$5.36911 + 2.95494I$	$-7.16291 - 2.81901I$
$u = 0.199032 + 0.612878I$ $a = 0.561529 - 1.138335I$ $b = 0.809423 + 0.117584I$	$5.36911 - 2.95494I$	$-7.16291 + 2.81901I$
$u = 0.263411 - 0.441744I$ $a = 0.312290 - 1.271242I$ $b = -0.479303 - 0.472811I$	$-0.52618 - 1.43256I$	$-3.73519 + 6.28375I$
$u = 0.263411 + 0.441744I$ $a = 0.312290 + 1.271242I$ $b = -0.479303 + 0.472811I$	$-0.52618 + 1.43256I$	$-3.73519 - 6.28375I$
$u = 2.34475 - 0.66404I$ $a = 0.204341 - 0.493346I$ $b = 0.151527 - 1.292462I$	$6.35965 - 0.39707I$	$-2.26484 + 2.21487I$
$u = 2.34475 + 0.66404I$ $a = 0.204341 + 0.493346I$ $b = 0.151527 + 1.292462I$	$6.35965 + 0.39707I$	$-2.26484 - 2.21487I$
$u = 2.53526 - 0.14222I$ $a = -0.127215 - 0.575447I$ $b = -0.40436 - 1.44082I$	$6.52797 - 5.89125I$	$-0.30193 + 3.39089I$
$u = 2.53526 + 0.14222I$ $a = -0.127215 + 0.575447I$ $b = -0.40436 + 1.44082I$	$6.52797 + 5.89125I$	$-0.30193 - 3.39089I$
$u = 2.93435 - 0.11492I$ $a = 0.185374 - 0.504984I$ $b = 0.48592 - 1.50310I$	$15.6748 + 13.1069I$	$-1.18846 - 5.87531I$

Solution to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 2.93435 + 0.11492I$ $a = 0.185374 + 0.504984I$ $b = 0.48592 + 1.50310I$	$15.6748 - 13.1069I$	$-1.18846 + 5.87531I$
$u = 4.07152 - 1.55549I$ $a = -0.093363 + 0.274076I$ $b = 0.046196 + 1.261130I$	$12.31696 - 2.15873I$	$3.13107 + 3.07256I$
$u = 4.07152 + 1.55549I$ $a = -0.093363 - 0.274076I$ $b = 0.046196 - 1.261130I$	$12.31696 + 2.15873I$	$3.13107 - 3.07256I$

IV.

$I^u_4 = \langle b^{26}-3b^{25}+\cdots-9b+1,\ 6.40\times10^{14}u-2.80\times10^{14}b^{25}+\cdots-9.05\times10^{15}b+9.11\times10^{14},\ 1.93\times10^{15}b^{25}-5.35\times10^{15}b^{24}+\cdots+1.92\times10^{15}a-4.01\times10^{15}\rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-1.00586b^{25}+2.78806b^{24}+\cdots-18.7038b+2.08767\\ b\end{pmatrix}$$
$$a_1 = \begin{pmatrix}-1.00586b^{25}+2.78806b^{24}+\cdots-19.7038b+2.08767\\ b\end{pmatrix}$$
$$a_3 = \begin{pmatrix}0.229532b^{25}-0.636550b^{24}+\cdots+6.96510b-0.00586315\\ -b^2\end{pmatrix}$$
$$a_8 = \begin{pmatrix}0\\ 0.437387b^{25}-1.02758b^{24}+\cdots+14.1294b-1.42354\end{pmatrix}$$
$$a_7 = \begin{pmatrix}0.973498b^{25}-2.54878b^{24}+\cdots+15.1574b-3.22989\\ 0.738314b^{25}-1.84839b^{24}+\cdots+15.4595b-1.32528\end{pmatrix}$$
$$a_5 = \begin{pmatrix}-0.353112b^{25}+1.05017b^{24}+\cdots-8.22868b+0.546894\\ 0.624907b^{25}-2.12314b^{24}+\cdots+25.2114b-3.59109\end{pmatrix}$$
$$a_2 = \begin{pmatrix}0.0982585b^{25}-0.595703b^{24}+\cdots+11.7692b-2.21440\\ 0.851882b^{25}-2.18042b^{24}+\cdots+12.8033b+1.43267\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}-1.00586b^{25}+2.78806b^{24}+\cdots-18.7038b+2.08767\\ 0.0591345b^{25}+0.0776802b^{24}+\cdots+2.44901b-1.85007\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-1.39158b^{25}+3.70478b^{24}+\cdots-30.6015b+5.15885\\ -0.682959b^{25}+1.75673b^{24}+\cdots-14.2343b+1.11476\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-0.585691b^{25}+1.68463b^{24}+\cdots-13.7189b+2.97508\\ 0.00282387b^{25}+0.201032b^{24}+\cdots+1.47093b-1.71634\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-0.585691b^{25}+1.68463b^{24}+\cdots-13.7189b+2.97508\\ 0.00282387b^{25}+0.201032b^{24}+\cdots+1.47093b-1.71634\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes =unknown

(iv) Complex Volumes and Cusp Shapes

Solution to I_4^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.212184-0.601220I$ $a=\ \ 1.78123+0.51570I$ $b=-1.207500-0.051879I$	$1.265646-0.287296I$	$-2.88954-0.89161I$
$u=-0.212184+0.601220I$ $a=\ \ 1.78123-0.51570I$ $b=-1.207500+0.051879I$	$1.265646+0.287296I$	$-2.88954+0.89161I$
$u=-2.55159-0.69397I$ $a=-0.204696-0.440581I$ $b=-0.45644-1.36303I$	$5.76658-5.41588I$	$-0.94009+2.54727I$
$u=-2.55159+0.69397I$ $a=-0.204696+0.440581I$ $b=-0.45644+1.36303I$	$5.76658+5.41588I$	$-0.94009-2.54727I$
$u=-1.02005$ $a=\ \ 0.247472-0.411191I$ $b=-0.252433-0.419434I$	-0.889471	-5.46516
$u=-1.02005$ $a=\ \ 0.247472+0.411191I$ $b=-0.252433+0.419434I$	-0.889471	-5.46516
$u=-0.131463-0.355843I$ $a=-0.308504+1.360323I$ $b=-0.247316-1.177338I$	$2.03958-2.67289I$	$-1.48191+5.19592I$
$u=-0.131463+0.355843I$ $a=-0.308504-1.360323I$ $b=-0.247316+1.177338I$	$2.03958+2.67289I$	$-1.48191-5.19592I$
$u=-0.212184-0.601220I$ $a=\ \ 0.70704-1.75888I$ $b=-0.067900-1.180333I$	$1.265646-0.287296I$	$-2.88954-0.89161I$
$u=-0.212184+0.601220I$ $a=\ \ 0.70704+1.75888I$ $b=-0.067900+1.180333I$	$1.265646+0.287296I$	$-2.88954+0.89161I$

Solution to I_4^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -2.31351 + 0.01822I$ $a = -0.332532 - 0.674434I$ $b = 0.052461 - 1.357580I$	$13.70611 - 0.67900I$	$1.58151 + 0.47574I$
$u = -2.31351 - 0.01822I$ $a = -0.332532 + 0.674434I$ $b = 0.052461 + 1.357580I$	$13.70611 + 0.67900I$	$1.58151 - 0.47574I$
$u = 0.726221 - 1.104014I$ $a = -0.623167 + 0.767003I$ $b = 0.160428 - 0.147487I$	$8.78740 - 1.45996I$	$-3.65650 + 0.27682I$
$u = 0.726221 + 1.104014I$ $a = -0.623167 - 0.767003I$ $b = 0.160428 + 0.147487I$	$8.78740 + 1.45996I$	$-3.65650 - 0.27682I$
$u = -2.55159 + 0.69397I$ $a = 0.301845 - 0.452092I$ $b = 0.216549 - 1.266236I$	$5.76658 + 5.41588I$	$-0.94009 - 2.54727I$
$u = -2.55159 - 0.69397I$ $a = 0.301845 + 0.452092I$ $b = 0.216549 + 1.266236I$	$5.76658 - 5.41588I$	$-0.94009 + 2.54727I$
$u = 0.492555 + 0.725715I$ $a = 0.55639 - 1.37912I$ $b = 0.326804 - 1.347110I$	$10.00278 + 7.01304I$	$-2.38090 - 4.98186I$
$u = 0.492555 - 0.725715I$ $a = 0.55639 + 1.37912I$ $b = 0.326804 + 1.347110I$	$10.00278 - 7.01304I$	$-2.38090 + 4.98186I$
$u = 0.726221 + 1.104014I$ $a = 0.159963 - 0.040090I$ $b = 0.394224 - 1.244999I$	$8.78740 + 1.45996I$	$-3.65650 - 0.27682I$
$u = 0.726221 - 1.104014I$ $a = 0.159963 + 0.040090I$ $b = 0.394224 + 1.244999I$	$8.78740 - 1.45996I$	$-3.65650 + 0.27682I$

Solution to I_4^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.131463 - 0.355843I$ $a = 3.13717 + 0.46398I$ $b = 0.524618 - 0.069053I$	$2.03958 - 2.67289I$	$-1.48191 + 5.19592I$
$u = -0.131463 + 0.355843I$ $a = 3.13717 - 0.46398I$ $b = 0.524618 + 0.069053I$	$2.03958 + 2.67289I$	$-1.48191 - 5.19592I$
$u = -2.31351 - 0.01822I$ $a = -0.027296 - 0.586589I$ $b = 0.78161 - 1.55425I$	$13.70611 + 0.67900I$	$1.58151 - 0.47574I$
$u = -2.31351 + 0.01822I$ $a = -0.027296 + 0.586589I$ $b = 0.78161 + 1.55425I$	$13.70611 - 0.67900I$	$1.58151 + 0.47574I$
$u = 0.492555 + 0.725715I$ $a = -1.06159 - 1.17084I$ $b = 1.274903 - 0.275508I$	$10.00278 + 7.01304I$	$-2.38090 - 4.98186I$
$u = 0.492555 - 0.725715I$ $a = -1.06159 + 1.17084I$ $b = 1.274903 + 0.275508I$	$10.00278 - 7.01304I$	$-2.38090 + 4.98186I$

V. u-Polynomials

Crossings	u-Polynomials at each crossings
c_1	$(u^3+u^2-2u+1)^2(u^6-u^5+8u^3+3u^2-u+3)$ $(1+47u-142u^2+100u^3+127u^4-214u^5+26u^6+122u^7-59u^8-26u^9+24u^{10}-4u^{12}+$ $(u^{13}+16u^{12}+\cdots+384u+32)$
c_2, c_5	$(u^6+2u^4+3u^3-2u^2-2u+1)(u^6+3u^4-3u^3-u+3)$ $(u^{13}+12u^{11}+\cdots-7u^2-1)(u^{26}+u^{25}+\cdots-193u+61)$
c_3, c_{10}	$(u^6+u^5+3u^4+2u^3+3u^2+2u+1)$ $(u^6+2u^5+\cdots+5u+3)(u^{13}+u^{12}+\cdots+4u-1)$ $(u^{26}+3u^{25}+\cdots+9u+1)$
c_4	$(u^3+u^2+1)^2(u^6-2u^5+3u^4-2u^3+5u^2-7u+3)$ $(-5+8u-20u^2+23u^3-26u^4+29u^5-17u^6+25u^7-7u^8+14u^9-2u^{10}+5u^{11}-u^{12}+u$ $(u^{13}+11u^{12}+\cdots-40u-4)$
c_6, c_8	$(u^6-3u^5+\cdots+2u+1)(u^6+u^5+\cdots+u+1)$ $(u^{13}-u^{12}+\cdots-11u+3)(u^{26}+4u^{25}+\cdots+2400u+1353)$
c_7, c_{11}	$(u^6-2u^5+4u^4-6u^3+6u^2-5u+3)$ $(u^6-u^5+\cdots-2u+1)(u^{13}+u^{12}+\cdots+4u-1)$ $(u^{26}+3u^{25}+\cdots+9u+1)$
c_9	$(u^3+u^2+1)^2(u^6-3u^5+2u^4+u^2-u+1)$ $(-3+2u+20u^2-23u^3-32u^4+63u^5-7u^6+7u^7-39u^8+4u^9+20u^{10}-5u^{11}-3u^{12}+u$ $(u^{13}+8u^{12}+\cdots+6u-12)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossings
c_1	$(y^3-5y^2+2y-1)^2(y^6-y^5+22y^4-60y^3+25y^2+17y+9)$ $(-1+2493y-1.10\times10^4y^2+2.59\times10^4y^3-4.00\times10^4y^4+4.43\times10^4y^5-3.63\times10^4y^6+2$ $(y^{13}-12y^{12}+\cdots+59904y-1024)$
c_2, c_5	$(y^6+4y^5+\cdots-8y+1)(y^6+6y^5+\cdots-y+9)$ $(y^{13}+24y^{12}+\cdots-14y-1)(y^{26}+33y^{25}+\cdots+38147y+3721)$
c_3, c_7, c_{10} c_{11}	$(y^6+4y^5+\cdots+11y+9)(y^6+5y^5+\cdots+2y+1)$ $(y^{13}+13y^{12}+\cdots+20y-1)(y^{26}+19y^{25}+\cdots-y+1)$
c_4	$(y^3-y^2-2y-1)^2(y^6+2y^5+11y^4+4y^3+15y^2-19y+9)$ $(y^{13}-3y^{12}+\cdots+456y-16)$ $(-25-136y-292y^2-217y^3+308y^4+1031y^5+1431y^6+1301y^7+867y^8+442y^9+172y^1$
c_6	$(y^6+y^5+11y^4+19y^2-6y+1)(y^6+3y^5+2y^4+y^2+y+1)$ $(y^{13}+11y^{12}+\cdots-35y-9)$ $(y^{26}+20y^{25}+\cdots+9336774y+1830609)$
c_8	$(y^6+y^5+11y^4+19y^2-6y+1)(y^6+3y^5+2y^4+y^2+y+1)$ $(y^{13}+11y^{12}+\cdots-35y-9)$ $(y^{26}+20y^{25}+\cdots+9336774y+1830609)$
c_9	$(y^3-y^2-2y-1)^2(y^6-5y^5+6y^4+5y^2+y+1)$ $(-9+124y-684y^2+2019y^3-3848y^4+4895y^5-2685y^6+1641y^7-2053y^8+1590y^9-66$ $(y^{13}-14y^{12}+\cdots+732y-144)$