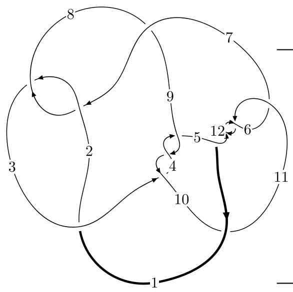
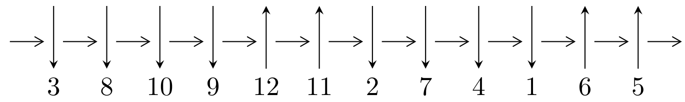
$12a_{0752}$ ($K12a_{0752}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 9.34661 \times 10^{34} u^{64} - 1.16625 \times 10^{35} u^{63} + \cdots + 2.68953 \times 10^{35} b + 2.48209 \times 10^{35},$$
$$- 2.45811 \times 10^{33} u^{64} + 8.33232 \times 10^{33} u^{63} + \cdots + 1.12064 \times 10^{34} a + 2.26849 \times 10^{34},\ u^{65} - u^{64} + \cdots + 12u -$$
$$I_2^u = \langle -a^3 u - 2a^2 u - 3a^2 + au + 2b - 4a + 3u - 1,\ a^4 - 4a^3 u + a^3 - 3a^2 u - 4a^2 - 4a + 2u,\ u^2 + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 73 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.

$$I_1^u = \langle 9.35\times10^{34}u^{64} - 1.17\times10^{35}u^{63} + \cdots + 2.69\times10^{35}b + 2.48\times10^{35},\ -2.46\times10^{33}u^{64} + 8.33\times10^{33}u^{63} + \cdots + 1.12\times10^{34}a + 2.27\times10^{34},\ u^{65} - u^{64} + \cdots + 12u - 4\rangle$$

(i) Arc colorings

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

$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} 0.219349u^{64} - 0.743533u^{63} + \cdots - 1.52002u - 2.02429 \\ -0.347518u^{64} + 0.433625u^{63} + \cdots + 0.00867489u - 0.922871 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.263361u^{64} + 0.721780u^{63} + \cdots - 1.26586u - 4.04726 \\ -0.133396u^{64} - 0.108354u^{63} + \cdots + 1.92192u - 0.715761 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.396757u^{64} + 0.613426u^{63} + \cdots + 0.656058u - 4.76302 \\ -0.133396u^{64} - 0.108354u^{63} + \cdots + 1.92192u - 0.715761 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.665779u^{64} + 1.57509u^{63} + \cdots + 8.10654u - 7.87229 \\ 0.118149u^{64} - 0.522205u^{63} + \cdots - 2.63479u - 0.297265 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.637359u^{64} - 0.265428u^{63} + \cdots + 0.870487u - 0.828079 \\ -0.193937u^{64} - 0.121331u^{63} + \cdots - 2.80066u + 0.434278 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -1.05857u^{64} + 0.511308u^{63} + \cdots + 11.4864u - 2.05186 \\ 0.119417u^{64} + 0.0796398u^{63} + \cdots + 2.46009u + 0.413703 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.353724u^{64} + 0.868730u^{63} + \cdots - 0.913544u - 4.49532 \\ -0.0369830u^{64} - 0.0480797u^{63} + \cdots + 2.57325u - 0.708124 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.196131u^{64} + 0.795929u^{63} + \cdots + 1.11042u - 13.7264$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$u^{65} + 21u^{64} + \cdots - 19u + 25$
c_2, c_7	$u^{65} + u^{64} + \cdots + 9u + 5$
c_3, c_4, c_9	$u^{65} + u^{64} + \cdots + 12u + 4$
c_5, c_6, c_{11} c_{12}	$u^{65} - u^{64} + \cdots - 11u + 1$
c_{10}	$u^{65} - 15u^{64} + \cdots + 14637u - 579$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8	$y^{65} + 51y^{64} + \cdots + 23161y - 625$
c_2, c_7	$y^{65} - 21y^{64} + \cdots - 19y - 25$
c_3, c_4, c_9	$y^{65} + 63y^{64} + \cdots + 40y - 16$
c_5, c_6, c_{11} c_{12}	$y^{65} + 75y^{64} + \cdots + 33y - 1$
c_{10}	$y^{65} + 15y^{64} + \cdots + 32505249y - 335241$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.102835 + 0.976475I$ $a = -0.032757 + 1.095510I$ $b = -0.798701 - 0.498342I$	$1.74608 - 2.06336I$	$3.79758 + 4.39158I$
$u = 0.102835 - 0.976475I$ $a = -0.032757 - 1.095510I$ $b = -0.798701 + 0.498342I$	$1.74608 + 2.06336I$	$3.79758 - 4.39158I$
$u = 0.906499 + 0.335695I$ $a = -1.00090 + 1.11719I$ $b = -1.002750 - 0.732824I$	$-5.22317 - 9.63115I$	$-7.07608 + 7.08853I$
$u = 0.906499 - 0.335695I$ $a = -1.00090 - 1.11719I$ $b = -1.002750 + 0.732824I$	$-5.22317 + 9.63115I$	$-7.07608 - 7.08853I$
$u = -0.863103 + 0.392575I$ $a = 0.189374 + 0.143384I$ $b = -0.712709 - 0.812089I$	$-4.34155 + 3.82461I$	$-5.48743 - 2.35121I$
$u = -0.863103 - 0.392575I$ $a = 0.189374 - 0.143384I$ $b = -0.712709 + 0.812089I$	$-4.34155 - 3.82461I$	$-5.48743 + 2.35121I$
$u = -0.646090 + 0.839750I$ $a = 0.412776 + 1.185770I$ $b = 0.793279 - 0.769153I$	$-2.98842 + 1.42035I$	0
$u = -0.646090 - 0.839750I$ $a = 0.412776 - 1.185770I$ $b = 0.793279 + 0.769153I$	$-2.98842 - 1.42035I$	0
$u = -0.622090 + 0.690604I$ $a = 0.280367 + 0.412655I$ $b = -0.850043 - 0.730237I$	$2.97067 - 2.17133I$	$-0.55827 + 3.61156I$
$u = -0.622090 - 0.690604I$ $a = 0.280367 - 0.412655I$ $b = -0.850043 + 0.730237I$	$2.97067 + 2.17133I$	$-0.55827 - 3.61156I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.810994 + 0.423522I$ $a = 0.88886 + 1.24338I$ $b = 0.957966 - 0.730403I$	$2.05615 + 7.11041I$	$-3.69386 - 8.87039I$
$u = -0.810994 - 0.423522I$ $a = 0.88886 - 1.24338I$ $b = 0.957966 + 0.730403I$	$2.05615 - 7.11041I$	$-3.69386 + 8.87039I$
$u = 0.267823 + 1.055660I$ $a = -0.43521 + 1.61801I$ $b = -0.814658 + 0.091365I$	$-8.43583 + 0.53108I$	0
$u = 0.267823 - 1.055660I$ $a = -0.43521 - 1.61801I$ $b = -0.814658 - 0.091365I$	$-8.43583 - 0.53108I$	0
$u = 0.738216 + 0.505729I$ $a = -0.275387 + 0.232751I$ $b = 0.771634 - 0.765297I$	$2.62252 - 1.43772I$	$-1.92916 + 3.83462I$
$u = 0.738216 - 0.505729I$ $a = -0.275387 - 0.232751I$ $b = 0.771634 + 0.765297I$	$2.62252 + 1.43772I$	$-1.92916 - 3.83462I$
$u = 0.685313 + 0.553849I$ $a = -0.67132 + 1.35014I$ $b = -0.896052 - 0.725197I$	$2.82813 - 3.37856I$	$-0.87863 + 2.72445I$
$u = 0.685313 - 0.553849I$ $a = -0.67132 - 1.35014I$ $b = -0.896052 + 0.725197I$	$2.82813 + 3.37856I$	$-0.87863 - 2.72445I$
$u = -0.210657 + 1.099830I$ $a = 0.227640 + 1.282450I$ $b = 0.747845 - 0.100142I$	$-0.354198 + 0.463146I$	0
$u = -0.210657 - 1.099830I$ $a = 0.227640 - 1.282450I$ $b = 0.747845 + 0.100142I$	$-0.354198 - 0.463146I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.634423 + 0.925822I$ $a = -0.136818 + 0.495445I$ $b = 0.939159 - 0.735967I$	$-3.43259 + 4.27319I$	0
$u = 0.634423 - 0.925822I$ $a = -0.136818 - 0.495445I$ $b = 0.939159 + 0.735967I$	$-3.43259 - 4.27319I$	0
$u = 0.696261 + 0.218895I$ $a = 1.85017 + 0.05497I$ $b = 1.039610 + 0.156898I$	$-10.84640 - 4.13320I$	$-13.21141 + 4.39737I$
$u = 0.696261 - 0.218895I$ $a = 1.85017 - 0.05497I$ $b = 1.039610 - 0.156898I$	$-10.84640 + 4.13320I$	$-13.21141 - 4.39737I$
$u = 0.042531 + 1.303050I$ $a = -0.259174 + 0.846936I$ $b = -1.051340 - 0.358180I$	$2.32426 - 1.84830I$	0
$u = 0.042531 - 1.303050I$ $a = -0.259174 - 0.846936I$ $b = -1.051340 + 0.358180I$	$2.32426 + 1.84830I$	0
$u = -0.543909 + 0.434620I$ $a = -0.224764 + 0.261112I$ $b = -0.162639 + 0.576900I$	$-7.07962 + 1.85589I$	$-6.10075 - 3.40773I$
$u = -0.543909 - 0.434620I$ $a = -0.224764 - 0.261112I$ $b = -0.162639 - 0.576900I$	$-7.07962 - 1.85589I$	$-6.10075 + 3.40773I$
$u = 0.046525 + 1.337050I$ $a = -1.26413 - 2.52442I$ $b = 0.872078 + 0.710596I$	$-5.01392 - 2.72133I$	0
$u = 0.046525 - 1.337050I$ $a = -1.26413 + 2.52442I$ $b = 0.872078 - 0.710596I$	$-5.01392 + 2.72133I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.179831+1.357410I$ $a=\ 0.400953+0.852353I$ $b=\ 1.104970-0.245801I$	$1.60426+5.26138I$	0
$u=-0.179831-1.357410I$ $a=\ 0.400953-0.852353I$ $b=\ 1.104970+0.245801I$	$1.60426-5.26138I$	0
$u=\ 0.129798+1.375160I$ $a=\ 0.191467+0.722569I$ $b=\ 1.111650-0.471770I$	$-3.93915+0.11450I$	0
$u=\ 0.129798-1.375160I$ $a=\ 0.191467-0.722569I$ $b=\ 1.111650+0.471770I$	$-3.93915-0.11450I$	0
$u=-0.589848+0.142876I$ $a=-1.71897+0.20675I$ $b=-0.945800+0.132751I$	$-3.13502+2.54263I$	$-12.19167-6.47264I$
$u=-0.589848-0.142876I$ $a=-1.71897-0.20675I$ $b=-0.945800-0.132751I$	$-3.13502-2.54263I$	$-12.19167+6.47264I$
$u=\ 0.26288+1.39636I$ $a=-0.486577+0.820787I$ $b=-1.156320-0.188953I$	$-5.67735-7.60097I$	0
$u=\ 0.26288-1.39636I$ $a=-0.486577-0.820787I$ $b=-1.156320+0.188953I$	$-5.67735+7.60097I$	0
$u=\ 0.05852+1.42211I$ $a=-0.020754+0.973316I$ $b=-0.067011-0.763857I$	$5.50108-1.93754I$	0
$u=\ 0.05852-1.42211I$ $a=-0.020754-0.973316I$ $b=-0.067011+0.763857I$	$5.50108+1.93754I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.17975 + 1.44172I$ $a = 0.063972 + 0.963885I$ $b = 0.192321 - 0.811399I$	$-1.08595 + 4.44930I$	0
$u = -0.17975 - 1.44172I$ $a = 0.063972 - 0.963885I$ $b = 0.192321 + 0.811399I$	$-1.08595 - 4.44930I$	0
$u = -0.10818 + 1.48887I$ $a = 0.53625 - 1.98157I$ $b = -0.926383 + 0.789415I$	$4.95976 + 3.21067I$	0
$u = -0.10818 - 1.48887I$ $a = 0.53625 + 1.98157I$ $b = -0.926383 - 0.789415I$	$4.95976 - 3.21067I$	0
$u = 0.499570$ $a = 1.32716$ $b = 0.807460$	-1.30268	-6.90340
$u = 0.04216 + 1.51719I$ $a = 0.87256 - 1.55666I$ $b = -0.847474 + 0.830941I$	$5.21368 + 2.83714I$	0
$u = 0.04216 - 1.51719I$ $a = 0.87256 + 1.55666I$ $b = -0.847474 - 0.830941I$	$5.21368 - 2.83714I$	0
$u = 0.35569 + 1.47673I$ $a = 0.29387 - 2.00895I$ $b = 1.050800 + 0.751869I$	$0.5934 - 14.1941I$	0
$u = 0.35569 - 1.47673I$ $a = 0.29387 + 2.00895I$ $b = 1.050800 - 0.751869I$	$0.5934 + 14.1941I$	0
$u = -0.32039 + 1.49216I$ $a = -0.995709 - 0.809498I$ $b = 0.677206 + 0.890530I$	$1.74717 + 8.10835I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.32039 - 1.49216I$ $a = -0.995709 + 0.809498I$ $b = 0.677206 - 0.890530I$	$1.74717 - 8.10835I$	0
$u = -0.29726 + 1.49890I$ $a = -0.10605 - 2.00465I$ $b = -1.025040 + 0.769571I$	$8.28669 + 11.14520I$	0
$u = -0.29726 - 1.49890I$ $a = -0.10605 + 2.00465I$ $b = -1.025040 - 0.769571I$	$8.28669 - 11.14520I$	0
$u = 0.22688 + 1.51321I$ $a = -0.11620 - 1.98583I$ $b = 0.991790 + 0.785678I$	$9.55198 - 6.67114I$	0
$u = 0.22688 - 1.51321I$ $a = -0.11620 + 1.98583I$ $b = 0.991790 - 0.785678I$	$9.55198 + 6.67114I$	0
$u = 0.24946 + 1.51401I$ $a = 0.995693 - 0.981031I$ $b = -0.725795 + 0.880563I$	$9.21413 - 5.02177I$	0
$u = 0.24946 - 1.51401I$ $a = 0.995693 + 0.981031I$ $b = -0.725795 - 0.880563I$	$9.21413 + 5.02177I$	0
$u = -0.17017 + 1.52793I$ $a = -0.96695 - 1.18510I$ $b = 0.776005 + 0.866492I$	$10.22350 + 0.53227I$	0
$u = -0.17017 - 1.52793I$ $a = -0.96695 + 1.18510I$ $b = 0.776005 - 0.866492I$	$10.22350 - 0.53227I$	0
$u = 0.244758 + 0.351804I$ $a = 0.155281 + 0.307568I$ $b = 0.120495 + 0.345871I$	$-0.138519 - 0.946103I$	$-2.87476 + 7.19365I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.244758 - 0.351804I$ $a = 0.155281 - 0.307568I$ $b = 0.120495 - 0.345871I$	$-0.138519 + 0.946103I$	$-2.87476 - 7.19365I$
$u = 0.282593 + 0.153006I$ $a = -4.08925 - 1.68114I$ $b = -0.949049 + 0.506277I$	$-8.95062 + 1.80203I$	$-12.10355 - 2.75353I$
$u = 0.282593 - 0.153006I$ $a = -4.08925 + 1.68114I$ $b = -0.949049 - 0.506277I$	$-8.95062 - 1.80203I$	$-12.10355 + 2.75353I$
$u = -0.180687 + 0.202078I$ $a = 0.02811 + 3.86747I$ $b = 0.881222 - 0.565760I$	$-0.97228 + 2.21380I$	$-11.07503 - 3.04073I$
$u = -0.180687 - 0.202078I$ $a = 0.02811 - 3.86747I$ $b = 0.881222 + 0.565760I$	$-0.97228 - 2.21380I$	$-11.07503 + 3.04073I$

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

(i) Arc colorings

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

$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} a \\ \frac{1}{2}a^3u + a^2u + \cdots + 2a + \frac{1}{2} \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -\frac{1}{2}a^3u - \frac{3}{2}a^2u + \cdots - \frac{1}{2}a^2 - \frac{1}{2}a \\ \frac{3}{2}a^2u + 2au + \cdots + \frac{1}{2}a + \frac{1}{2} \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -\frac{1}{2}a^3u + \frac{3}{2}au + \cdots - \frac{3}{2}a^2 + \frac{1}{2} \\ \frac{3}{2}a^2u + 2au + \cdots + \frac{1}{2}a + \frac{1}{2} \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} \frac{1}{2}a^3u - \frac{3}{2}au + \cdots + \frac{3}{2}a^2 - \frac{1}{2} \\ -a + 2u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} \frac{3}{2}a^2u - \frac{1}{2}u + \cdots + \frac{3}{2}a + \frac{1}{2} \\ \frac{1}{2}a^3u + a^2u + \cdots + 2a + \frac{1}{2} \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -\frac{3}{2}a^2u + \frac{1}{2}u + \cdots - \frac{3}{2}a + \frac{1}{2} \\ -\frac{3}{2}a^2u + au + \cdots - \frac{3}{2}a + \frac{1}{2} \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -\frac{1}{2}a^3u + \frac{3}{2}au + \cdots - \frac{3}{2}a^2 + \frac{1}{2} \\ -\frac{1}{2}a^3u + \frac{3}{2}a^2u + \cdots + \frac{1}{2}a + 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 2a^3 - 6a^2u + 4a^2 - 8au - 2a - 2u - 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u^2 - u + 1)^4$
c_2, c_7	$(u^4 - u^2 + 1)^2$
c_3, c_4, c_9	$(u^2 + 1)^4$
c_5, c_6, c_{11} c_{12}	$(u^4 + 3u^2 + 1)^2$
c_8	$(u^2 + u + 1)^4$
c_{10}	$(u^2 + u - 1)^4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8	$(y^2 + y + 1)^4$
c_2, c_7	$(y^2 - y + 1)^4$
c_3, c_4, c_9	$(y + 1)^8$
c_5, c_6, c_{11} c_{12}	$(y^2 + 3y + 1)^4$
c_{10}	$(y^2 - 3y + 1)^4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.000000I$ $a = -0.809017 - 0.401259I$ $b = -0.866025 - 0.500000I$	$-7.23771 - 2.02988I$	$-6.00000 + 3.46410I$
$u = 1.000000I$ $a = 0.309017 + 0.464767I$ $b = 0.866025 - 0.500000I$	$0.65797 + 2.02988I$	$-6.00000 - 3.46410I$
$u = 1.000000I$ $a = 0.30902 + 1.53523I$ $b = -0.866025 - 0.500000I$	$0.65797 - 2.02988I$	$-6.00000 + 3.46410I$
$u = 1.000000I$ $a = -0.80902 + 2.40126I$ $b = 0.866025 - 0.500000I$	$-7.23771 + 2.02988I$	$-6.00000 - 3.46410I$
$u = -1.000000I$ $a = -0.809017 + 0.401259I$ $b = -0.866025 + 0.500000I$	$-7.23771 + 2.02988I$	$-6.00000 - 3.46410I$
$u = -1.000000I$ $a = 0.309017 - 0.464767I$ $b = 0.866025 + 0.500000I$	$0.65797 - 2.02988I$	$-6.00000 + 3.46410I$
$u = -1.000000I$ $a = 0.30902 - 1.53523I$ $b = -0.866025 + 0.500000I$	$0.65797 + 2.02988I$	$-6.00000 - 3.46410I$
$u = -1.000000I$ $a = -0.80902 - 2.40126I$ $b = 0.866025 + 0.500000I$	$-7.23771 - 2.02988I$	$-6.00000 + 3.46410I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^2-u+1)^4)(u^{65}+21u^{64}+\cdots-19u+25)$
c_2, c_7	$((u^4-u^2+1)^2)(u^{65}+u^{64}+\cdots+9u+5)$
c_3, c_4, c_9	$((u^2+1)^4)(u^{65}+u^{64}+\cdots+12u+4)$
c_5, c_6, c_{11} c_{12}	$((u^4+3u^2+1)^2)(u^{65}-u^{64}+\cdots-11u+1)$
c_8	$((u^2+u+1)^4)(u^{65}+21u^{64}+\cdots-19u+25)$
c_{10}	$((u^2+u-1)^4)(u^{65}-15u^{64}+\cdots+14637u-579)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_8	$((y^2 + y + 1)^4)(y^{65} + 51y^{64} + \cdots + 23161y - 625)$
c_2, c_7	$((y^2 - y + 1)^4)(y^{65} - 21y^{64} + \cdots - 19y - 25)$
c_3, c_4, c_9	$((y + 1)^8)(y^{65} + 63y^{64} + \cdots + 40y - 16)$
c_5, c_6, c_{11} c_{12}	$((y^2 + 3y + 1)^4)(y^{65} + 75y^{64} + \cdots + 33y - 1)$
c_{10}	$((y^2 - 3y + 1)^4)(y^{65} + 15y^{64} + \cdots + 3.25052 \times 10^7 y - 335241)$