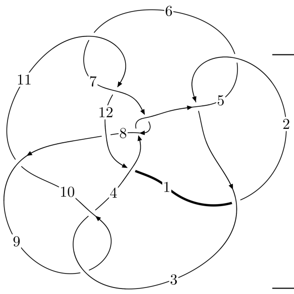
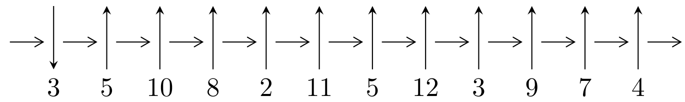
$12n_{0528}$ $(K12n_{0528})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -4.69351 \times 10^{67} u^{41} + 3.55947 \times 10^{66} u^{40} + \cdots + 1.96775 \times 10^{68} b - 6.12388 \times 10^{68},$$
$$8.52173 \times 10^{68} u^{41} + 2.62218 \times 10^{67} u^{40} + \cdots + 2.16453 \times 10^{69} a - 5.80462 \times 10^{68},\ u^{42} - u^{41} + \cdots + 7u - 11\rangle$$
$$I_2^u = \langle -u^{23} + 6u^{21} + \cdots + b + 1,\ 2u^{23} - 13u^{21} + \cdots + a - 8,\ u^{24} - 7u^{22} + \cdots + 2u + 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 66 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.
$\boldsymbol{I_1^u = \langle -4.69\times10^{67}u^{41}+3.56\times10^{66}u^{40}+\cdots+1.97\times10^{68}b-6.12\times10^{68},\ 8.52\times10^{68}u^{41}+2.62\times10^{67}u^{40}+\cdots+2.16\times10^{69}a-5.80\times10^{68},\ u^{42}-u^{41}+\cdots+7u-11\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u \\ -u^3+u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -0.393699u^{41} - 0.0121143u^{40} + \cdots + 3.32268u + 0.268170 \\ 0.238522u^{41} - 0.0180890u^{40} + \cdots - 1.02660u + 3.11212 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0.0278896u^{41} - 0.0937965u^{40} + \cdots + 3.36008u + 4.84817 \\ 0.449875u^{41} + 0.0226937u^{40} + \cdots - 3.24732u + 3.95315 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -0.270147u^{41} - 0.104563u^{40} + \cdots + 1.82540u - 2.97138 \\ -0.123129u^{41} + 0.000949344u^{40} + \cdots - 2.15974u - 3.88780 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -0.173180u^{41} - 0.00979843u^{40} + \cdots + 0.668036u - 2.62647 \\ 0.153388u^{41} - 0.142217u^{40} + \cdots + 7.32309u + 5.63335 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 0.0278896u^{41} - 0.0937965u^{40} + \cdots + 3.36008u + 4.84817 \\ 0.296249u^{41} + 0.0542077u^{40} + \cdots - 2.47919u + 3.22817 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -0.413508u^{41} + 0.339840u^{40} + \cdots - 8.97780u - 9.77944 \\ -0.0992743u^{41} - 0.0250768u^{40} + \cdots + 3.47552u + 1.40486 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0.363292u^{41} - 0.398230u^{40} + \cdots + 9.99588u + 9.98935 \\ 0.236749u^{41} - 0.0235247u^{40} + \cdots - 2.79328u + 0.767418 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^2+1 \\ -u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 3.35147u^{41} - 0.742817u^{40} + \cdots + 14.9249u + 57.1841$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{42} + 64u^{41} + \cdots - 29237998u + 1857769$
c_2, c_5	$u^{42} + 2u^{41} + \cdots - 2362u - 1363$
c_3, c_9	$u^{42} + u^{41} + \cdots - 7u - 11$
c_4, c_7	$u^{42} + 3u^{41} + \cdots + 10u + 1$
c_6, c_{11}	$u^{42} - u^{41} + \cdots + 237u - 367$
c_8	$u^{42} + u^{40} + \cdots - 458u + 59$
c_{10}	$u^{42} - 9u^{41} + \cdots - 1765u + 121$
c_{12}	$u^{42} + 6u^{41} + \cdots + 144391u - 29237$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{42} - 180y^{41} + \cdots + 171645687681114y + 3451305657361$
c_2, c_5	$y^{42} + 64y^{41} + \cdots - 29237998y + 1857769$
c_3, c_9	$y^{42} - 9y^{41} + \cdots - 1765y + 121$
c_4, c_7	$y^{42} + 37y^{41} + \cdots + 386y + 1$
c_6, c_{11}	$y^{42} + 9y^{41} + \cdots - 699887y + 134689$
c_8	$y^{42} + 2y^{41} + \cdots - 127282y + 3481$
c_{10}	$y^{42} + 63y^{41} + \cdots - 706841y + 14641$
c_{12}	$y^{42} + 66y^{41} + \cdots - 9618536811y + 854802169$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.976940 + 0.189570I$ $a = 0.671991 - 0.140780I$ $b = -0.640713 + 0.564843I$	$0.096118 - 0.719363I$	$11.90225 + 0.52877I$
$u = -0.976940 - 0.189570I$ $a = 0.671991 + 0.140780I$ $b = -0.640713 - 0.564843I$	$0.096118 + 0.719363I$	$11.90225 - 0.52877I$
$u = 0.996611 + 0.295480I$ $a = -1.090500 - 0.450071I$ $b = 0.717959 + 0.455088I$	$0.95171 + 5.32146I$	$14.6843 - 4.3710I$
$u = 0.996611 - 0.295480I$ $a = -1.090500 + 0.450071I$ $b = 0.717959 - 0.455088I$	$0.95171 - 5.32146I$	$14.6843 + 4.3710I$
$u = -0.271254 + 0.920102I$ $a = -0.032414 + 0.826443I$ $b = -0.107773 + 1.208280I$	$-3.16398 - 3.11599I$	$6.81507 + 2.35566I$
$u = -0.271254 - 0.920102I$ $a = -0.032414 - 0.826443I$ $b = -0.107773 - 1.208280I$	$-3.16398 + 3.11599I$	$6.81507 - 2.35566I$
$u = 0.742652 + 0.598949I$ $a = 0.581796 - 1.131730I$ $b = -0.114376 - 0.798928I$	$-1.67032 + 2.18141I$	$6.55140 - 5.10092I$
$u = 0.742652 - 0.598949I$ $a = 0.581796 + 1.131730I$ $b = -0.114376 + 0.798928I$	$-1.67032 - 2.18141I$	$6.55140 + 5.10092I$
$u = 0.901422 + 0.608862I$ $a = 0.41986 - 1.91727I$ $b = -0.595052 - 1.146190I$	$-4.01965 + 5.81935I$	$2.88718 - 6.41779I$
$u = 0.901422 - 0.608862I$ $a = 0.41986 + 1.91727I$ $b = -0.595052 + 1.146190I$	$-4.01965 - 5.81935I$	$2.88718 + 6.41779I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.026110 + 0.457658I$ $a = -0.89076 - 1.58817I$ $b = 1.201650 - 0.209885I$	$3.18164 - 4.85238I$	$16.3570 + 7.8732I$
$u = -1.026110 - 0.457658I$ $a = -0.89076 + 1.58817I$ $b = 1.201650 + 0.209885I$	$3.18164 + 4.85238I$	$16.3570 - 7.8732I$
$u = 0.762100 + 0.321278I$ $a = 3.04433 - 0.63560I$ $b = 0.139498 - 0.544927I$	$-4.53677 - 1.72545I$	$2.47718 - 1.65314I$
$u = 0.762100 - 0.321278I$ $a = 3.04433 + 0.63560I$ $b = 0.139498 + 0.544927I$	$-4.53677 + 1.72545I$	$2.47718 + 1.65314I$
$u = 0.709703 + 0.385831I$ $a = -1.34330 + 1.34754I$ $b = 1.088080 + 0.084929I$	$3.75865 + 0.52675I$	$15.2045 - 4.6516I$
$u = 0.709703 - 0.385831I$ $a = -1.34330 - 1.34754I$ $b = 1.088080 - 0.084929I$	$3.75865 - 0.52675I$	$15.2045 + 4.6516I$
$u = 0.055992 + 0.739207I$ $a = -0.59055 - 1.78054I$ $b = 0.966097 - 0.562046I$	$-5.24825 - 1.98551I$	$5.33983 + 2.52760I$
$u = 0.055992 - 0.739207I$ $a = -0.59055 + 1.78054I$ $b = 0.966097 + 0.562046I$	$-5.24825 + 1.98551I$	$5.33983 - 2.52760I$
$u = -0.928890 + 0.877770I$ $a = 0.52280 + 1.42327I$ $b = -0.086373 + 0.854209I$	$-9.64609 - 3.25422I$	$-3.44885 + 0.I$
$u = -0.928890 - 0.877770I$ $a = 0.52280 - 1.42327I$ $b = -0.086373 - 0.854209I$	$-9.64609 + 3.25422I$	$-3.44885 + 0.I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.110845 + 0.666061I$ $a = -0.619219 - 0.873228I$ $b = -1.045990 - 0.541356I$	$0.96220 + 1.18700I$	$9.79126 - 0.55178I$
$u = -0.110845 - 0.666061I$ $a = -0.619219 + 0.873228I$ $b = -1.045990 + 0.541356I$	$0.96220 - 1.18700I$	$9.79126 + 0.55178I$
$u = 0.626245 + 0.157018I$ $a = 1.13195 - 0.98921I$ $b = -0.984773 - 0.837523I$	$-0.58346 + 4.36237I$	$9.67579 - 7.91348I$
$u = 0.626245 - 0.157018I$ $a = 1.13195 + 0.98921I$ $b = -0.984773 + 0.837523I$	$-0.58346 - 4.36237I$	$9.67579 + 7.91348I$
$u = -0.666149 + 1.210860I$ $a = -0.050312 - 1.150930I$ $b = 0.87990 - 1.25839I$	$-6.84658 - 4.87263I$	$10.00000 + 0.I$
$u = -0.666149 - 1.210860I$ $a = -0.050312 + 1.150930I$ $b = 0.87990 + 1.25839I$	$-6.84658 + 4.87263I$	$10.00000 + 0.I$
$u = -0.530306 + 0.145723I$ $a = -0.925303 + 0.897460I$ $b = -1.388070 - 0.265720I$	$1.33067 + 1.52042I$	$12.91104 - 5.67422I$
$u = -0.530306 - 0.145723I$ $a = -0.925303 - 0.897460I$ $b = -1.388070 + 0.265720I$	$1.33067 - 1.52042I$	$12.91104 + 5.67422I$
$u = -0.99651 + 1.16113I$ $a = 0.510029 + 0.364618I$ $b = 1.30183 + 1.39531I$	$-16.7577 - 4.3210I$	0
$u = -0.99651 - 1.16113I$ $a = 0.510029 - 0.364618I$ $b = 1.30183 - 1.39531I$	$-16.7577 + 4.3210I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.461304$ $a=\ \ 0.359897$ $b=-0.288008$	0.654622	15.3870
$u=\ \ 1.56280$ $a=-0.170963$ $b=-0.172890$	7.95511	0
$u=-1.17709+1.02908I$ $a=\ \ 0.669839+1.234860I$ $b=-1.49268+1.06354I$	$-16.1321-3.7400I$	0
$u=-1.17709-1.02908I$ $a=\ \ 0.669839-1.234860I$ $b=-1.49268-1.06354I$	$-16.1321+3.7400I$	0
$u=\ \ 1.23722+0.98615I$ $a=-0.674732+1.221550I$ $b=\ \ 1.28035+1.24557I$	$-16.5397+14.0085I$	0
$u=\ \ 1.23722-0.98615I$ $a=-0.674732-1.221550I$ $b=\ \ 1.28035-1.24557I$	$-16.5397-14.0085I$	0
$u=-1.44741+0.67124I$ $a=-0.550696-0.105785I$ $b=-0.154517-1.136070I$	$-4.06097-2.48143I$	0
$u=-1.44741-0.67124I$ $a=-0.550696+0.105785I$ $b=-0.154517+1.136070I$	$-4.06097+2.48143I$	0
$u=\ \ 0.91039+1.31239I$ $a=-0.494881+0.556209I$ $b=-1.04089+1.47723I$	$-17.7875-5.7506I$	0
$u=\ \ 0.91039-1.31239I$ $a=-0.494881-0.556209I$ $b=-1.04089-1.47723I$	$-17.7875+5.7506I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.13842 + 1.22014I$ $a = -0.338929 + 0.751534I$ $b = 0.306293 + 1.180910I$	$-11.22360 + 4.40183I$	0
$u = 1.13842 - 1.22014I$ $a = -0.338929 - 0.751534I$ $b = 0.306293 - 1.180910I$	$-11.22360 - 4.40183I$	0

II.
$$\boldsymbol{I^u_2 = \langle -u^{23}+6u^{21}+\cdots+b+1,\ 2u^{23}-13u^{21}+\cdots+a-8,\ u^{24}-7u^{22}+\cdots+2u+1\rangle}$$

(i) Arc colorings

$$a_3 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_9 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_4 = \begin{pmatrix}u\\-u^3+u\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}-2u^{23}+13u^{21}+\cdots+7u+8\\u^{23}-6u^{21}+\cdots+u^3-1\end{pmatrix}$$
$$a_1 = \begin{pmatrix}u^{23}-u^{22}+\cdots+5u+8\\3u^{23}-u^{22}+\cdots-u-2\end{pmatrix}$$
$$a_8 = \begin{pmatrix}2u^{23}-11u^{21}+\cdots-6u-8\\-2u^{21}+2u^{20}+\cdots+u+3\end{pmatrix}$$
$$a_5 = \begin{pmatrix}-5u^{23}+u^{22}+\cdots+8u-2\\6u^{23}-u^{22}+\cdots+3u+10\end{pmatrix}$$
$$a_2 = \begin{pmatrix}u^{23}-u^{22}+\cdots+5u+8\\3u^{23}-u^{22}+\cdots-u^2-1\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-2u^{23}+3u^{22}+\cdots+57u^2-11\\10u^{23}-5u^{22}+\cdots+2u+11\end{pmatrix}$$
$$a_7 = \begin{pmatrix}u^{23}+u^{22}+\cdots-u-11\\6u^{23}-4u^{22}+\cdots+3u+8\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-u^2+1\\-u^2\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= 7u^{23}-2u^{22}-35u^{21}+15u^{20}+93u^{19}-35u^{18}-173u^{17}+60u^{16}+216u^{15}-55u^{14}-151u^{13}-21u^{12}-17u^{11}+202u^{10}+137u^9-350u^8-118u^7+346u^6+38u^5-193u^4+7u^3+69u^2-3u-1$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{24}-19u^{23}+\cdots-13u+1$
c_2	$u^{24}+u^{23}+\cdots-u-1$
c_3	$u^{24}-7u^{22}+\cdots-2u+1$
c_4	$u^{24}+4u^{23}+\cdots+u+1$
c_5	$u^{24}-u^{23}+\cdots+u-1$
c_6	$u^{24}-4u^{22}+\cdots-2u-1$
c_7	$u^{24}-4u^{23}+\cdots-u+1$
c_8	$u^{24}+3u^{23}+\cdots+3u-1$
c_9	$u^{24}-7u^{22}+\cdots+2u+1$
c_{10}	$u^{24}-14u^{23}+\cdots-18u+1$
c_{11}	$u^{24}-4u^{22}+\cdots+2u-1$
c_{12}	$u^{24}+u^{23}+\cdots+46u-103$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{24} - 37y^{23} + \cdots + 17y + 1$
c_2, c_5	$y^{24} + 19y^{23} + \cdots + 13y + 1$
c_3, c_9	$y^{24} - 14y^{23} + \cdots - 18y + 1$
c_4, c_7	$y^{24} + 8y^{23} + \cdots + 17y + 1$
c_6, c_{11}	$y^{24} - 8y^{23} + \cdots - 16y + 1$
c_8	$y^{24} - 11y^{23} + \cdots - 19y + 1$
c_{10}	$y^{24} + 6y^{23} + \cdots - 26y + 1$
c_{12}	$y^{24} + 5y^{23} + \cdots - 49084y + 10609$

(vi) Complex Volumes and Cusp Shapes

Solutions to I^u_2	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.801340 + 0.736116I$ $a = 0.21096 - 1.56855I$ $b = -0.605197 - 1.263280I$	$-3.00301 + 5.73538I$	$10.39480 - 5.83398I$
$u = 0.801340 - 0.736116I$ $a = 0.21096 + 1.56855I$ $b = -0.605197 + 1.263280I$	$-3.00301 - 5.73538I$	$10.39480 + 5.83398I$
$u = -1.030300 + 0.360014I$ $a = -1.118250 - 0.241019I$ $b = 0.802224 - 0.589756I$	$0.37671 - 6.12039I$	$9.63076 + 10.31907I$
$u = -1.030300 - 0.360014I$ $a = -1.118250 + 0.241019I$ $b = 0.802224 + 0.589756I$	$0.37671 + 6.12039I$	$9.63076 - 10.31907I$
$u = -1.033250 + 0.446927I$ $a = -1.21979 - 1.90987I$ $b = 1.346880 - 0.258537I$	$2.46070 - 4.50580I$	$6.63131 + 3.28501I$
$u = -1.033250 - 0.446927I$ $a = -1.21979 + 1.90987I$ $b = 1.346880 + 0.258537I$	$2.46070 + 4.50580I$	$6.63131 - 3.28501I$
$u = 0.601908 + 0.599038I$ $a = 0.182147 - 0.835112I$ $b = -1.33970 - 0.50009I$	$0.31347 + 2.55641I$	$8.68969 - 4.76226I$
$u = 0.601908 - 0.599038I$ $a = 0.182147 + 0.835112I$ $b = -1.33970 + 0.50009I$	$0.31347 - 2.55641I$	$8.68969 + 4.76226I$
$u = 1.063590 + 0.527317I$ $a = -0.632358 + 0.883549I$ $b = 1.219720 - 0.405042I$	$1.85831 + 1.96827I$	$9.06368 - 2.03092I$
$u = 1.063590 - 0.527317I$ $a = -0.632358 - 0.883549I$ $b = 1.219720 + 0.405042I$	$1.85831 - 1.96827I$	$9.06368 + 2.03092I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.745990+0.297929I$ $a=\ \ 0.433446+0.100374I$ $b=-1.000640-0.751291I$	$-0.72691+3.28719I$	$7.46239-1.13118I$
$u=-0.745990-0.297929I$ $a=\ \ 0.433446-0.100374I$ $b=-1.000640+0.751291I$	$-0.72691-3.28719I$	$7.46239+1.13118I$
$u=\ \ 1.171030+0.265644I$ $a=\ \ 0.443531-0.797924I$ $b=\ \ 0.460708+0.162456I$	$-2.23108+3.70583I$	$9.26047-4.04767I$
$u=\ \ 1.171030-0.265644I$ $a=\ \ 0.443531+0.797924I$ $b=\ \ 0.460708-0.162456I$	$-2.23108-3.70583I$	$9.26047+4.04767I$
$u=\ \ 0.758754+0.127493I$ $a=\ \ 3.92397-0.99022I$ $b=-0.605895+0.289636I$	$-3.98670-2.05045I$	$14.4656+4.5172I$
$u=\ \ 0.758754-0.127493I$ $a=\ \ 3.92397+0.99022I$ $b=-0.605895-0.289636I$	$-3.98670+2.05045I$	$14.4656-4.5172I$
$u=\ \ 0.975256+0.756613I$ $a=\ \ 0.899803-0.590281I$ $b=\ \ 0.164458-1.085950I$	$-2.47930-0.06362I$	$6.51040+0.07327I$
$u=\ \ 0.975256-0.756613I$ $a=\ \ 0.899803+0.590281I$ $b=\ \ 0.164458+1.085950I$	$-2.47930+0.06362I$	$6.51040-0.07327I$
$u=-0.652424+0.390106I$ $a=-0.956679-0.190508I$ $b=-1.47282-0.31238I$	$1.09474+0.91656I$	$7.73888+4.66446I$
$u=-0.652424-0.390106I$ $a=-0.956679+0.190508I$ $b=-1.47282+0.31238I$	$1.09474-0.91656I$	$7.73888-4.66446I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.926976 + 0.934269I$ $a = 0.304797 + 1.251840I$ $b = -0.150225 + 0.737433I$	$-9.18549 - 3.41839I$	$12.55837 + 4.87301I$
$u = -0.926976 - 0.934269I$ $a = 0.304797 - 1.251840I$ $b = -0.150225 - 0.737433I$	$-9.18549 + 3.41839I$	$12.55837 - 4.87301I$
$u = -1.54033$ $a = 0.0892248$ $b = 0.322461$	8.03261	65.8590
$u = -0.425538$ $a = 2.96764$ $b = -0.961500$	3.24533	7.32810

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{24} - 19u^{23} + \cdots - 13u + 1)$ $\cdot (u^{42} + 64u^{41} + \cdots - 29237998u + 1857769)$
c_2	$(u^{24} + u^{23} + \cdots - u - 1)(u^{42} + 2u^{41} + \cdots - 2362u - 1363)$
c_3	$(u^{24} - 7u^{22} + \cdots - 2u + 1)(u^{42} + u^{41} + \cdots - 7u - 11)$
c_4	$(u^{24} + 4u^{23} + \cdots + u + 1)(u^{42} + 3u^{41} + \cdots + 10u + 1)$
c_5	$(u^{24} - u^{23} + \cdots + u - 1)(u^{42} + 2u^{41} + \cdots - 2362u - 1363)$
c_6	$(u^{24} - 4u^{22} + \cdots - 2u - 1)(u^{42} - u^{41} + \cdots + 237u - 367)$
c_7	$(u^{24} - 4u^{23} + \cdots - u + 1)(u^{42} + 3u^{41} + \cdots + 10u + 1)$
c_8	$(u^{24} + 3u^{23} + \cdots + 3u - 1)(u^{42} + u^{40} + \cdots - 458u + 59)$
c_9	$(u^{24} - 7u^{22} + \cdots + 2u + 1)(u^{42} + u^{41} + \cdots - 7u - 11)$
c_{10}	$(u^{24} - 14u^{23} + \cdots - 18u + 1)(u^{42} - 9u^{41} + \cdots - 1765u + 121)$
c_{11}	$(u^{24} - 4u^{22} + \cdots + 2u - 1)(u^{42} - u^{41} + \cdots + 237u - 367)$
c_{12}	$(u^{24} + u^{23} + \cdots + 46u - 103)(u^{42} + 6u^{41} + \cdots + 144391u - 29237)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{24} - 37y^{23} + \cdots + 17y + 1)$ $\cdot (y^{42} - 180y^{41} + \cdots + 171645687681114y + 3451305657361)$
c_2, c_5	$(y^{24} + 19y^{23} + \cdots + 13y + 1)$ $\cdot (y^{42} + 64y^{41} + \cdots - 29237998y + 1857769)$
c_3, c_9	$(y^{24} - 14y^{23} + \cdots - 18y + 1)(y^{42} - 9y^{41} + \cdots - 1765y + 121)$
c_4, c_7	$(y^{24} + 8y^{23} + \cdots + 17y + 1)(y^{42} + 37y^{41} + \cdots + 386y + 1)$
c_6, c_{11}	$(y^{24} - 8y^{23} + \cdots - 16y + 1)(y^{42} + 9y^{41} + \cdots - 699887y + 134689)$
c_8	$(y^{24} - 11y^{23} + \cdots - 19y + 1)(y^{42} + 2y^{41} + \cdots - 127282y + 3481)$
c_{10}	$(y^{24} + 6y^{23} + \cdots - 26y + 1)(y^{42} + 63y^{41} + \cdots - 706841y + 14641)$
c_{12}	$(y^{24} + 5y^{23} + \cdots - 49084y + 10609)$ $\cdot (y^{42} + 66y^{41} + \cdots - 9618536811y + 854802169)$