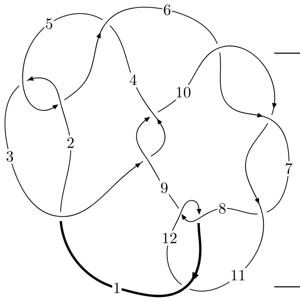
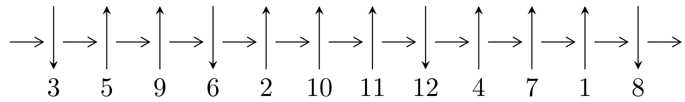
$12a_{0172}$ ($K12a_{0172}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle &-1.45180 \times 10^{120} u^{73} + 4.03952 \times 10^{120} u^{72} + \cdots + 1.30235 \times 10^{121} b - 4.34074 \times 10^{120},\\
&6.05606 \times 10^{120} u^{73} - 3.93278 \times 10^{121} u^{72} + \cdots + 2.21400 \times 10^{122} a + 2.14853 \times 10^{123},\\
&u^{74} - 3u^{73} + \cdots - 105u - 34\rangle\\
I_2^u = \langle &b^2 - b + 1,\ a + 1,\ u^5 - u^4 - 2u^3 + u^2 + u + 1\rangle
\end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 84 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. $I_1^u = \langle -1.45 \times 10^{120}u^{73} + 4.04 \times 10^{120}u^{72} + \cdots + 1.30 \times 10^{121}b - 4.34 \times 10^{120},\ 6.06 \times 10^{120}u^{73} - 3.93 \times 10^{121}u^{72} + \cdots + 2.21 \times 10^{122}a + 2.15 \times 10^{123},\ u^{74} - 3u^{73} + \cdots - 105u - 34 \rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.0273534u^{73} + 0.177632u^{72} + \cdots - 9.08897u - 9.70429 \\ 0.111475u^{73} - 0.310170u^{72} + \cdots + 0.717542u + 0.333299 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u^2 + 1 \\ u^4 - 2u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.0451659u^{73} - 0.400611u^{72} + \cdots - 29.8846u - 4.08994 \\ -0.0475614u^{73} + 0.362089u^{72} + \cdots + 24.0421u + 8.35798 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.331234u^{73} + 1.03101u^{72} + \cdots + 4.46259u + 4.44330 \\ 0.239159u^{73} - 0.574819u^{72} + \cdots - 2.80721u - 9.58086 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.210920u^{73} + 0.849732u^{72} + \cdots + 23.6544u + 14.0350 \\ -0.147525u^{73} + 0.442629u^{72} + \cdots + 7.67513u + 1.20613 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.00239555u^{73} - 0.0385226u^{72} + \cdots - 5.84249u + 4.26805 \\ -0.0475614u^{73} + 0.362089u^{72} + \cdots + 24.0421u + 8.35798 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.0354744u^{73} + 0.253948u^{72} + \cdots + 6.90667u - 3.95032 \\ 0.217027u^{73} - 0.765655u^{72} + \cdots - 22.3956u - 12.1871 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.361662u^{73} + 1.35032u^{72} + \cdots + 39.2427u + 19.9087 \\ -0.0399039u^{73} + 0.190967u^{72} + \cdots + 4.64937u - 3.21561 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.0808785u^{73} + 0.245428u^{72} + \cdots - 15.6772u - 2.16608$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{74} + 22u^{73} + \cdots + 13u + 1$
c_2, c_5	$u^{74} + 6u^{73} + \cdots + 5u + 1$
c_3, c_9	$u^{74} + u^{73} + \cdots + 3072u^2 - 1024$
c_6, c_7, c_{10}	$u^{74} - 3u^{73} + \cdots - 105u - 34$
c_8, c_{12}	$u^{74} + 3u^{73} + \cdots - 2u - 1$
c_{11}	$u^{74} - 43u^{73} + \cdots + 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{74} + 66y^{73} + \cdots + 1221y + 1$
c_2, c_5	$y^{74} + 22y^{73} + \cdots + 13y + 1$
c_3, c_9	$y^{74} - 55y^{73} + \cdots - 6291456y + 1048576$
c_6, c_7, c_{10}	$y^{74} - 85y^{73} + \cdots + 17603y + 1156$
c_8, c_{12}	$y^{74} + 43y^{73} + \cdots - 2y + 1$
c_{11}	$y^{74} - 21y^{73} + \cdots - 54y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.792276 + 0.579163I$ $a = -0.405399 - 0.850260I$ $b = 0.218212 - 1.039340I$	$0.15163 - 5.92978I$	0
$u = -0.792276 - 0.579163I$ $a = -0.405399 + 0.850260I$ $b = 0.218212 + 1.039340I$	$0.15163 + 5.92978I$	0
$u = 0.141074 + 1.026160I$ $a = 0.741246 - 0.573106I$ $b = -0.754093 - 0.901400I$	$2.82540 + 5.08946I$	0
$u = 0.141074 - 1.026160I$ $a = 0.741246 + 0.573106I$ $b = -0.754093 + 0.901400I$	$2.82540 - 5.08946I$	0
$u = 0.247837 + 1.018910I$ $a = 0.476613 + 0.271184I$ $b = -0.759452 + 0.862977I$	$2.94401 - 0.64407I$	0
$u = 0.247837 - 1.018910I$ $a = 0.476613 - 0.271184I$ $b = -0.759452 - 0.862977I$	$2.94401 + 0.64407I$	0
$u = 0.738891 + 0.770167I$ $a = 1.42413 - 0.69452I$ $b = -0.768564 - 0.958680I$	$4.37578 + 6.45349I$	0
$u = 0.738891 - 0.770167I$ $a = 1.42413 + 0.69452I$ $b = -0.768564 + 0.958680I$	$4.37578 - 6.45349I$	0
$u = 0.819080 + 0.694478I$ $a = 0.395577 - 0.433900I$ $b = -0.809713 + 0.803977I$	$4.85168 + 0.52465I$	0
$u = 0.819080 - 0.694478I$ $a = 0.395577 + 0.433900I$ $b = -0.809713 - 0.803977I$	$4.85168 - 0.52465I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.833315 + 0.399088I$ $a = -2.05047 - 0.63615I$ $b = 0.684280 + 0.914822I$	$2.91943 + 5.78714I$	0
$u = 0.833315 - 0.399088I$ $a = -2.05047 + 0.63615I$ $b = 0.684280 - 0.914822I$	$2.91943 - 5.78714I$	0
$u = -0.833568 + 0.293621I$ $a = -0.491785 + 0.392953I$ $b = 0.641432 - 0.143331I$	$3.80185 - 3.25281I$	$12.99162 + 5.07017I$
$u = -0.833568 - 0.293621I$ $a = -0.491785 - 0.392953I$ $b = 0.641432 + 0.143331I$	$3.80185 + 3.25281I$	$12.99162 - 5.07017I$
$u = 0.536029 + 0.688679I$ $a = 1.157520 - 0.586197I$ $b = -0.016192 - 0.798494I$	$-1.03766 + 2.07310I$	$0. - 3.44701I$
$u = 0.536029 - 0.688679I$ $a = 1.157520 + 0.586197I$ $b = -0.016192 + 0.798494I$	$-1.03766 - 2.07310I$	$0. + 3.44701I$
$u = 0.749591 + 0.262619I$ $a = -2.06221 + 0.99351I$ $b = 0.705257 - 0.788110I$	$3.31170 + 0.45778I$	$9.93937 - 0.85994I$
$u = 0.749591 - 0.262619I$ $a = -2.06221 - 0.99351I$ $b = 0.705257 + 0.788110I$	$3.31170 - 0.45778I$	$9.93937 + 0.85994I$
$u = 1.273940 + 0.124542I$ $a = 1.174220 - 0.094574I$ $b = -0.227543 - 0.656454I$	$2.04447 + 1.01310I$	0
$u = 1.273940 - 0.124542I$ $a = 1.174220 + 0.094574I$ $b = -0.227543 + 0.656454I$	$2.04447 - 1.01310I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.059070 + 0.761879I$ $a = 1.57349 + 0.43998I$ $b = -0.764665 + 0.986007I$	$6.38008 - 11.03360I$	0
$u = -1.059070 - 0.761879I$ $a = 1.57349 - 0.43998I$ $b = -0.764665 - 0.986007I$	$6.38008 + 11.03360I$	0
$u = -0.645813 + 0.255567I$ $a = -0.114178 + 1.091410I$ $b = -0.851584 - 0.841956I$	$9.27124 + 2.13858I$	$13.72041 - 2.59497I$
$u = -0.645813 - 0.255567I$ $a = -0.114178 - 1.091410I$ $b = -0.851584 + 0.841956I$	$9.27124 - 2.13858I$	$13.72041 + 2.59497I$
$u = -1.113290 + 0.685903I$ $a = 0.659749 + 0.554990I$ $b = -0.825354 - 0.765471I$	$7.05334 - 5.07352I$	0
$u = -1.113290 - 0.685903I$ $a = 0.659749 - 0.554990I$ $b = -0.825354 + 0.765471I$	$7.05334 + 5.07352I$	0
$u = -0.089649 + 0.672839I$ $a = 0.88456 + 1.13933I$ $b = 0.095134 + 0.862320I$	$-1.96073 + 1.64413I$	$-2.06231 - 4.26426I$
$u = -0.089649 - 0.672839I$ $a = 0.88456 - 1.13933I$ $b = 0.095134 - 0.862320I$	$-1.96073 - 1.64413I$	$-2.06231 + 4.26426I$
$u = 0.358555 + 0.536553I$ $a = -0.04644 + 1.41724I$ $b = 0.197597 + 0.943333I$	$-1.56670 + 2.15882I$	$-0.36505 - 4.88726I$
$u = 0.358555 - 0.536553I$ $a = -0.04644 - 1.41724I$ $b = 0.197597 - 0.943333I$	$-1.56670 - 2.15882I$	$-0.36505 + 4.88726I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.545628 + 0.285450I$ $a = 2.12519 + 1.41592I$ $b = -0.813472 + 0.950753I$	$8.93340 - 4.05613I$	$13.18636 + 2.67213I$
$u = -0.545628 - 0.285450I$ $a = 2.12519 - 1.41592I$ $b = -0.813472 - 0.950753I$	$8.93340 + 4.05613I$	$13.18636 - 2.67213I$
$u = -0.538990 + 0.296954I$ $a = -1.66267 + 0.63971I$ $b = 0.413810 + 1.006280I$	$1.269800 + 0.465685I$	$10.92617 + 0.56708I$
$u = -0.538990 - 0.296954I$ $a = -1.66267 - 0.63971I$ $b = 0.413810 - 1.006280I$	$1.269800 - 0.465685I$	$10.92617 - 0.56708I$
$u = -1.392270 + 0.138352I$ $a = 1.157120 - 0.037316I$ $b = -0.289785 - 0.621402I$	$5.70309 - 3.30850I$	0
$u = -1.392270 - 0.138352I$ $a = 1.157120 + 0.037316I$ $b = -0.289785 + 0.621402I$	$5.70309 + 3.30850I$	0
$u = 0.590098$ $a = 0.115562$ $b = 0.437328$	1.09942	9.14060
$u = 0.275924 + 0.441037I$ $a = 1.129560 - 0.072563I$ $b = -0.142548 + 0.140247I$	$0.50148 + 1.32272I$	$5.11712 - 4.95919I$
$u = 0.275924 - 0.441037I$ $a = 1.129560 + 0.072563I$ $b = -0.142548 - 0.140247I$	$0.50148 - 1.32272I$	$5.11712 + 4.95919I$
$u = -1.48500 + 0.26000I$ $a = 1.120910 + 0.102882I$ $b = -0.255453 + 0.705274I$	$5.45005 - 5.59065I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.48500 - 0.26000I$ $a = 1.120910 - 0.102882I$ $b = -0.255453 - 0.705274I$	$5.45005 + 5.59065I$	0
$u = -0.463679 + 0.155250I$ $a = -2.37623 + 0.65762I$ $b = 0.614271 - 0.862447I$	$0.59794 - 2.40390I$	$1.78729 + 3.32649I$
$u = -0.463679 - 0.155250I$ $a = -2.37623 - 0.65762I$ $b = 0.614271 + 0.862447I$	$0.59794 + 2.40390I$	$1.78729 - 3.32649I$
$u = -1.51959 + 0.08438I$ $a = -0.789869 - 0.291182I$ $b = 0.306865 - 1.151720I$	$4.67990 - 3.98112I$	0
$u = -1.51959 - 0.08438I$ $a = -0.789869 + 0.291182I$ $b = 0.306865 + 1.151720I$	$4.67990 + 3.98112I$	0
$u = -0.078329 + 0.427211I$ $a = -2.27926 + 0.07772I$ $b = 0.541612 - 0.940323I$	$0.26280 - 2.86416I$	$5.10786 - 1.03407I$
$u = -0.078329 - 0.427211I$ $a = -2.27926 - 0.07772I$ $b = 0.541612 + 0.940323I$	$0.26280 + 2.86416I$	$5.10786 + 1.03407I$
$u = 1.56928 + 0.03188I$ $a = -1.87634 - 0.78270I$ $b = 0.803759 + 0.892022I$	$7.70040 + 3.01101I$	0
$u = 1.56928 - 0.03188I$ $a = -1.87634 + 0.78270I$ $b = 0.803759 - 0.892022I$	$7.70040 - 3.01101I$	0
$u = 1.57468 + 0.06012I$ $a = -0.847918 - 0.235707I$ $b = 0.325364 - 1.160820I$	$8.54134 + 0.68666I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.57468 - 0.06012I$ $a = -0.847918 + 0.235707I$ $b = 0.325364 + 1.160820I$	$8.54134 - 0.68666I$	0
$u = -1.58471$ $a = -0.992474$ $b = 0.861914$	8.58805	0
$u = 1.58785 + 0.09233I$ $a = 1.94370 + 0.00627I$ $b = -0.811458 - 1.037490I$	$16.3498 + 5.4804I$	0
$u = 1.58785 - 0.09233I$ $a = 1.94370 - 0.00627I$ $b = -0.811458 + 1.037490I$	$16.3498 - 5.4804I$	0
$u = 1.62114 + 0.06754I$ $a = 1.07652 - 0.93449I$ $b = -0.933998 + 0.760204I$	$17.2245 - 0.9450I$	0
$u = 1.62114 - 0.06754I$ $a = 1.07652 + 0.93449I$ $b = -0.933998 - 0.760204I$	$17.2245 + 0.9450I$	0
$u = -1.62817 + 0.07722I$ $a = -1.86464 - 0.79697I$ $b = 0.816768 + 0.882730I$	$11.54420 - 1.76278I$	0
$u = -1.62817 - 0.07722I$ $a = -1.86464 + 0.79697I$ $b = 0.816768 - 0.882730I$	$11.54420 + 1.76278I$	0
$u = -1.62013 + 0.22649I$ $a = 1.87179 + 0.02364I$ $b = -0.800729 + 1.038330I$	$12.2115 - 10.1477I$	0
$u = -1.62013 - 0.22649I$ $a = 1.87179 - 0.02364I$ $b = -0.800729 - 1.038330I$	$12.2115 + 10.1477I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.63229 + 0.17241I$ $a = -0.729730 + 0.249243I$ $b = 0.294541 + 1.166160I$	$8.34692 + 8.79923I$	0
$u = 1.63229 - 0.17241I$ $a = -0.729730 - 0.249243I$ $b = 0.294541 - 1.166160I$	$8.34692 - 8.79923I$	0
$u = -1.64023 + 0.18527I$ $a = 1.055260 + 0.872816I$ $b = -0.925763 - 0.748096I$	$13.12460 - 3.78419I$	0
$u = -1.64023 - 0.18527I$ $a = 1.055260 - 0.872816I$ $b = -0.925763 + 0.748096I$	$13.12460 + 3.78419I$	0
$u = 1.64954 + 0.09451I$ $a = -1.024770 - 0.042625I$ $b = 0.877470 + 0.021197I$	$12.40730 + 4.81921I$	0
$u = 1.64954 - 0.09451I$ $a = -1.024770 + 0.042625I$ $b = 0.877470 - 0.021197I$	$12.40730 - 4.81921I$	0
$u = -1.64916 + 0.12208I$ $a = -1.86517 + 0.76861I$ $b = 0.808404 - 0.906622I$	$11.46920 - 7.83965I$	0
$u = -1.64916 - 0.12208I$ $a = -1.86517 - 0.76861I$ $b = 0.808404 + 0.906622I$	$11.46920 + 7.83965I$	0
$u = 0.011633 + 0.252597I$ $a = -1.48519 - 3.25207I$ $b = 0.486901 + 0.619078I$	$1.18181 + 1.37684I$	$10.23383 - 4.11434I$
$u = 0.011633 - 0.252597I$ $a = -1.48519 + 3.25207I$ $b = 0.486901 - 0.619078I$	$1.18181 - 1.37684I$	$10.23383 + 4.11434I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.73327 + 0.24468I$ $a = 1.83247 + 0.02129I$ $b = -0.798044 - 1.046890I$	$15.8035 + 15.1907I$	0
$u = 1.73327 - 0.24468I$ $a = 1.83247 - 0.02129I$ $b = -0.798044 + 1.046890I$	$15.8035 - 15.1907I$	0
$u = 1.73825 + 0.21069I$ $a = 1.096380 - 0.840577I$ $b = -0.932887 + 0.737413I$	$16.7780 + 8.8164I$	0
$u = 1.73825 - 0.21069I$ $a = 1.096380 + 0.840577I$ $b = -0.932887 - 0.737413I$	$16.7780 - 8.8164I$	0

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

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -1 \\ b \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u^2 + 1 \\ u^4 - 2u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -b + 1 \\ b - 1 \end{pmatrix}$$

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

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

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

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

$$a_{12} = \begin{pmatrix} -u^3 + 2u \\ -u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= u^4b - 2u^3b - 2u^2b - 4u^3 + 3bu + u^2 - 4b + 8u + 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4, c_5	$(u^2 - u + 1)^5$
c_2	$(u^2 + u + 1)^5$
c_3, c_9	u^{10}
c_6, c_7	$(u^5 - u^4 - 2u^3 + u^2 + u + 1)^2$
c_8	$(u^5 + u^4 + 2u^3 + u^2 + u + 1)^2$
c_{10}	$(u^5 + u^4 - 2u^3 - u^2 + u - 1)^2$
c_{11}	$(u^5 + 3u^4 + 4u^3 + u^2 - u - 1)^2$
c_{12}	$(u^5 - u^4 + 2u^3 - u^2 + u - 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4 c_5	$(y^2 + y + 1)^5$
c_3, c_9	y^{10}
c_6, c_7, c_{10}	$(y^5 - 5y^4 + 8y^3 - 3y^2 - y - 1)^2$
c_8, c_{12}	$(y^5 + 3y^4 + 4y^3 + y^2 - y - 1)^2$
c_{11}	$(y^5 - y^4 + 8y^3 - 3y^2 + 3y - 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.21774$ $a = -1.00000$ $b = \ \ 0.500000 + 0.866025I$	$2.40108 + 2.02988I$	$6.55976 - 4.16430I$
$u = -1.21774$ $a = -1.00000$ $b = \ \ 0.500000 - 0.866025I$	$2.40108 - 2.02988I$	$6.55976 + 4.16430I$
$u = -0.309916 + 0.549911I$ $a = -1.00000$ $b = \ \ 0.500000 + 0.866025I$	$0.329100 + 0.499304I$	$1.60756 + 0.92266I$
$u = -0.309916 + 0.549911I$ $a = -1.00000$ $b = \ \ 0.500000 - 0.866025I$	$0.32910 - 3.56046I$	$5.91654 + 9.74472I$
$u = -0.309916 - 0.549911I$ $a = -1.00000$ $b = \ \ 0.500000 + 0.866025I$	$0.32910 + 3.56046I$	$5.91654 - 9.74472I$
$u = -0.309916 - 0.549911I$ $a = -1.00000$ $b = \ \ 0.500000 - 0.866025I$	$0.329100 - 0.499304I$	$1.60756 - 0.92266I$
$u = \ \ 1.41878 + 0.21917I$ $a = -1.00000$ $b = \ \ 0.500000 + 0.866025I$	$5.87256 + 6.43072I$	$10.62344 - 8.02599I$
$u = \ \ 1.41878 + 0.21917I$ $a = -1.00000$ $b = \ \ 0.500000 - 0.866025I$	$5.87256 + 2.37095I$	$9.29269 + 1.50431I$
$u = \ \ 1.41878 - 0.21917I$ $a = -1.00000$ $b = \ \ 0.500000 + 0.866025I$	$5.87256 - 2.37095I$	$9.29269 - 1.50431I$
$u = \ \ 1.41878 - 0.21917I$ $a = -1.00000$ $b = \ \ 0.500000 - 0.866025I$	$5.87256 - 6.43072I$	$10.62344 + 8.02599I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_4	$((u^2 - u + 1)^5)(u^{74} + 22u^{73} + \cdots + 13u + 1)$
c_2	$((u^2 + u + 1)^5)(u^{74} + 6u^{73} + \cdots + 5u + 1)$
c_3, c_9	$u^{10}(u^{74} + u^{73} + \cdots + 3072u^2 - 1024)$
c_5	$((u^2 - u + 1)^5)(u^{74} + 6u^{73} + \cdots + 5u + 1)$
c_6, c_7	$((u^5 - u^4 - 2u^3 + u^2 + u + 1)^2)(u^{74} - 3u^{73} + \cdots - 105u - 34)$
c_8	$((u^5 + u^4 + 2u^3 + u^2 + u + 1)^2)(u^{74} + 3u^{73} + \cdots - 2u - 1)$
c_{10}	$((u^5 + u^4 - 2u^3 - u^2 + u - 1)^2)(u^{74} - 3u^{73} + \cdots - 105u - 34)$
c_{11}	$((u^5 + 3u^4 + 4u^3 + u^2 - u - 1)^2)(u^{74} - 43u^{73} + \cdots + 2u + 1)$
c_{12}	$((u^5 - u^4 + 2u^3 - u^2 + u - 1)^2)(u^{74} + 3u^{73} + \cdots - 2u - 1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$((y^2+y+1)^5)(y^{74}+66y^{73}+\cdots+1221y+1)$
c_2, c_5	$((y^2+y+1)^5)(y^{74}+22y^{73}+\cdots+13y+1)$
c_3, c_9	$y^{10}(y^{74}-55y^{73}+\cdots-6291456y+1048576)$
c_6, c_7, c_{10}	$((y^5-5y^4+8y^3-3y^2-y-1)^2)(y^{74}-85y^{73}+\cdots+17603y+1156)$
c_8, c_{12}	$((y^5+3y^4+4y^3+y^2-y-1)^2)(y^{74}+43y^{73}+\cdots-2y+1)$
c_{11}	$((y^5-y^4+8y^3-3y^2+3y-1)^2)(y^{74}-21y^{73}+\cdots-54y+1)$