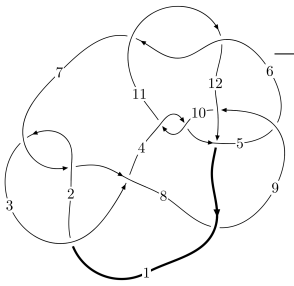
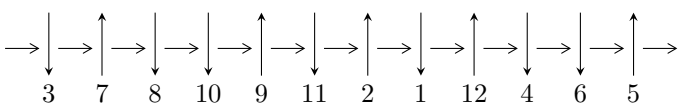
$12a_{0530}$ $(K12a_{0530})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 41u^{43} + 223u^{42} + \cdots + 4b + 100,\ -57u^{43} - 353u^{42} + \cdots + 8a - 44,\ u^{44} + 7u^{43} + \cdots + 68u + 8\rangle$$

$$\begin{aligned} I_2^u = \langle & 9.53658 \times 10^{33}a^5u^{14} + 2.36260 \times 10^{34}a^4u^{14} + \cdots - 9.99117 \times 10^{34}a + 8.92448 \times 10^{34}, \\ & 3u^{14}a^4 - 10u^{14}a^3 + \cdots - 4a - 5, \\ & u^{15} - u^{14} + 4u^{13} - 3u^{12} + 8u^{11} - 6u^{10} + 10u^9 - 7u^8 + 8u^7 - 6u^6 + 6u^5 - 4u^4 + 4u^3 - 2u^2 + 2u - 1\rangle \end{aligned}$$

$$I_3^u = \langle -3u^{25} - u^{24} + \cdots + b + 2,\ u^{25} - 2u^{24} + \cdots + a - 4,\ u^{26} + 7u^{24} + \cdots + 3u^2 + 1\rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 160 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. $I_1^u = \langle 41u^{43} + 223u^{42} + \cdots + 4b + 100,\ -57u^{43} - 353u^{42} + \cdots + 8a - 44,\ u^{44} + 7u^{43} + \cdots + 68u + 8 \rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u^3 \\ u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u^8 + u^6 + u^4 + 1 \\ u^{10} + 2u^8 + 3u^6 + 2u^4 + u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 7.12500u^{43} + 44.1250u^{42} + \cdots + 65.2500u + 5.50000 \\ -\frac{41}{4}u^{43} - \frac{223}{4}u^{42} + \cdots - 193u - 25 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} \frac{67}{8}u^{43} + \frac{351}{8}u^{42} + \cdots - \frac{459}{4}u - 16 \\ \frac{17}{4}u^{43} + \frac{161}{4}u^{42} + \cdots + \frac{1549}{2}u + 101 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} \frac{37}{8}u^{43} + \frac{215}{8}u^{42} + \cdots + \frac{167}{2}u + 12 \\ -4u^{43} - \frac{49}{2}u^{42} + \cdots - \frac{329}{2}u - 21 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -\frac{59}{8}u^{43} - \frac{351}{8}u^{42} + \cdots - \frac{757}{4}u - 23 \\ -\frac{3}{4}u^{43} - \frac{55}{4}u^{42} + \cdots - \frac{939}{2}u - 63 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.875000u^{43} + 4.12500u^{42} + \cdots + 349.250u + 45.5000 \\ -\frac{37}{4}u^{43} - \frac{239}{4}u^{42} + \cdots - 463u - 55 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -7u^{43} - 47u^{42} + \cdots - 416u - 62$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{44}+21u^{43}+\cdots+112u+64$
c_2, c_7	$u^{44}+7u^{43}+\cdots+68u+8$
c_3	$u^{44}-7u^{43}+\cdots-15900u+2088$
c_4, c_6, c_{10} c_{11}	$u^{44}+20u^{42}+\cdots+3u+1$
c_5, c_{12}	$u^{44}-u^{43}+\cdots-2u+1$
c_8	$u^{44}+35u^{43}+\cdots+9095124u+659432$
c_9	$u^{44}+44u^{43}+\cdots+819200u+32768$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{44} + 5y^{43} + \cdots + 2816y + 4096$
c_2, c_7	$y^{44} + 21y^{43} + \cdots + 112y + 64$
c_3	$y^{44} - 5y^{43} + \cdots - 12038544y + 4359744$
c_4, c_6, c_{10} c_{11}	$y^{44} + 40y^{43} + \cdots - 19y + 1$
c_5, c_{12}	$y^{44} - 9y^{43} + \cdots - 64y^2 + 1$
c_8	$y^{44} + 25y^{43} + \cdots + 6217463314032y + 434850562624$
c_9	$y^{44} - 6y^{43} + \cdots - 6442450944y + 1073741824$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.771961 + 0.602327I$ $a = 0.784201 + 0.917922I$ $b = -0.229630 - 0.588406I$	$11.6828 + 10.3282I$	$5.41388 - 6.57609I$
$u = 0.771961 - 0.602327I$ $a = 0.784201 - 0.917922I$ $b = -0.229630 + 0.588406I$	$11.6828 - 10.3282I$	$5.41388 + 6.57609I$
$u = -0.878878 + 0.399261I$ $a = -0.520182 - 0.463224I$ $b = -0.90418 + 1.33398I$	$8.51993 + 4.44435I$	$10.30662 - 5.37023I$
$u = -0.878878 - 0.399261I$ $a = -0.520182 + 0.463224I$ $b = -0.90418 - 1.33398I$	$8.51993 - 4.44435I$	$10.30662 + 5.37023I$
$u = 0.805721 + 0.663985I$ $a = -0.763958 - 0.526627I$ $b = 0.296805 + 0.406761I$	$10.14630 + 0.67163I$	$10.77089 + 0.I$
$u = 0.805721 - 0.663985I$ $a = -0.763958 + 0.526627I$ $b = 0.296805 - 0.406761I$	$10.14630 - 0.67163I$	$10.77089 + 0.I$
$u = -0.825811 + 0.399312I$ $a = 0.764760 + 0.689805I$ $b = 1.38844 - 1.66573I$	$10.5319 + 13.5470I$	$4.42171 - 6.43618I$
$u = -0.825811 - 0.399312I$ $a = 0.764760 - 0.689805I$ $b = 1.38844 + 1.66573I$	$10.5319 - 13.5470I$	$4.42171 + 6.43618I$
$u = -0.251030 + 1.084220I$ $a = 1.178010 + 0.266520I$ $b = -0.503510 - 0.887089I$	$-3.62681 + 1.22923I$	$-9.94128 + 0.I$
$u = -0.251030 - 1.084220I$ $a = 1.178010 - 0.266520I$ $b = -0.503510 + 0.887089I$	$-3.62681 - 1.22923I$	$-9.94128 + 0.I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.528484 + 0.991235I$ $a = 0.049966 + 0.348359I$ $b = 0.077091 - 0.202845I$	$0.42486 + 2.54152I$	0
$u = 0.528484 - 0.991235I$ $a = 0.049966 - 0.348359I$ $b = 0.077091 + 0.202845I$	$0.42486 - 2.54152I$	0
$u = -0.353895 + 1.083280I$ $a = -1.36755 + 0.92675I$ $b = 1.44320 + 0.38079I$	$-4.55447 - 1.96039I$	$-10.29608 + 0.I$
$u = -0.353895 - 1.083280I$ $a = -1.36755 - 0.92675I$ $b = 1.44320 - 0.38079I$	$-4.55447 + 1.96039I$	$-10.29608 + 0.I$
$u = 0.604521 + 0.571054I$ $a = 0.260116 - 0.443639I$ $b = -0.203569 + 0.147021I$	$1.65990 + 1.95709I$	$-0.58811 - 2.61893I$
$u = 0.604521 - 0.571054I$ $a = 0.260116 + 0.443639I$ $b = -0.203569 - 0.147021I$	$1.65990 - 1.95709I$	$-0.58811 + 2.61893I$
$u = -0.132961 + 1.170640I$ $a = -1.16316 + 1.55025I$ $b = 1.54309 - 0.27524I$	$5.21956 + 11.00520I$	0
$u = -0.132961 - 1.170640I$ $a = -1.16316 - 1.55025I$ $b = 1.54309 + 0.27524I$	$5.21956 - 11.00520I$	0
$u = -0.813214 + 0.089482I$ $a = -0.277438 + 0.262138I$ $b = -0.38381 + 1.45806I$	$3.95344 + 5.94910I$	$3.39079 - 6.28501I$
$u = -0.813214 - 0.089482I$ $a = -0.277438 - 0.262138I$ $b = -0.38381 - 1.45806I$	$3.95344 - 5.94910I$	$3.39079 + 6.28501I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.704448 + 0.960389I$ $a = -0.845199 - 0.047081I$ $b = 0.457004 + 0.238192I$	$9.25750 + 4.95114I$	0
$u = 0.704448 - 0.960389I$ $a = -0.845199 + 0.047081I$ $b = 0.457004 - 0.238192I$	$9.25750 - 4.95114I$	0
$u = -0.494271 + 1.091860I$ $a = -1.83138 + 0.39862I$ $b = 1.49231 + 1.12163I$	$-3.61088 - 5.26891I$	0
$u = -0.494271 - 1.091860I$ $a = -1.83138 - 0.39862I$ $b = 1.49231 - 1.12163I$	$-3.61088 + 5.26891I$	0
$u = 0.660554 + 1.000590I$ $a = 0.961092 - 0.250231I$ $b = -0.603096 - 0.116175I$	$10.49750 - 4.93338I$	0
$u = 0.660554 - 1.000590I$ $a = 0.961092 + 0.250231I$ $b = -0.603096 + 0.116175I$	$10.49750 + 4.93338I$	0
$u = -0.716710 + 0.346180I$ $a = -0.020035 - 0.488746I$ $b = -0.853904 - 0.168551I$	$0.62836 + 3.74210I$	$-3.41810 - 3.14319I$
$u = -0.716710 - 0.346180I$ $a = -0.020035 + 0.488746I$ $b = -0.853904 + 0.168551I$	$0.62836 - 3.74210I$	$-3.41810 + 3.14319I$
$u = 0.240552 + 0.734610I$ $a = 0.708960 + 0.258355I$ $b = -0.194536 - 0.354720I$	$-0.292714 + 1.270550I$	$-2.89377 - 5.36729I$
$u = 0.240552 - 0.734610I$ $a = 0.708960 - 0.258355I$ $b = -0.194536 + 0.354720I$	$-0.292714 - 1.270550I$	$-2.89377 + 5.36729I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.557436+1.108860I$ $a=\ \ 0.625340-1.061380I$ $b=-1.256840+0.245380I$	$-1.59229-8.61061I$	0
$u=-0.557436-1.108860I$ $a=\ \ 0.625340+1.061380I$ $b=-1.256840-0.245380I$	$-1.59229+8.61061I$	0
$u=-0.366767+1.214540I$ $a=-0.31007-1.60906I$ $b=-0.83625+1.26669I$	$-0.06974+1.87494I$	0
$u=-0.366767-1.214540I$ $a=-0.31007+1.60906I$ $b=-0.83625-1.26669I$	$-0.06974-1.87494I$	0
$u=-0.477226+1.182400I$ $a=\ \ 1.61627+1.09507I$ $b=-0.33602-1.89598I$	$0.69334-10.58120I$	0
$u=-0.477226-1.182400I$ $a=\ \ 1.61627-1.09507I$ $b=-0.33602+1.89598I$	$0.69334+10.58120I$	0
$u=-0.131279+1.268580I$ $a=\ \ 0.420628-1.134570I$ $b=-0.874900+0.491913I$	$2.77015+1.49845I$	0
$u=-0.131279-1.268580I$ $a=\ \ 0.420628+1.134570I$ $b=-0.874900-0.491913I$	$2.77015-1.49845I$	0
$u=-0.611031+1.124960I$ $a=-2.67560+0.20316I$ $b=\ \ 2.10236+1.97702I$	$8.3623-18.9020I$	0
$u=-0.611031-1.124960I$ $a=-2.67560-0.20316I$ $b=\ \ 2.10236-1.97702I$	$8.3623+18.9020I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.632273+1.140160I$ $a=\ \ 1.91318-0.02296I$ $b=-1.44122-1.50281I$	$6.28900-10.01230I$	0
$u=-0.632273-1.140160I$ $a=\ \ 1.91318+0.02296I$ $b=-1.44122+1.50281I$	$6.28900+10.01230I$	0
$u=-0.573459+0.202063I$ $a=\ \ 0.742047+0.156983I$ $b=\ \ 0.821175-0.529483I$	$-1.22290+1.05754I$	$-4.87264-3.36875I$
$u=-0.573459-0.202063I$ $a=\ \ 0.742047-0.156983I$ $b=\ \ 0.821175+0.529483I$	$-1.22290-1.05754I$	$-4.87264+3.36875I$

II. $\boldsymbol{I_2^u = \langle 9.54 \times 10^{33} a^5 u^{14} + 2.36 \times 10^{34} a^4 u^{14} + \cdots - 9.99 \times 10^{34} a + 8.92 \times 10^{34},\ 3u^{14}a^4 - 10u^{14}a^3 + \cdots - 4a - 5,\ u^{15} - u^{14} + \cdots + 2u - 1\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u^3 \\ u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u^8 + u^6 + u^4 + 1 \\ u^{10} + 2u^8 + 3u^6 + 2u^4 + u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} a \\ -0.0854987a^5u^{14} - 0.211815a^4u^{14} + \cdots + 0.895743a - 0.800111 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.209507a^5u^{14} + 0.276316a^4u^{14} + \cdots - 0.462222a - 2.00165 \\ -0.146946a^5u^{14} - 0.572407a^4u^{14} + \cdots + 2.04664a - 0.429965 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.0840752a^5u^{14} + 0.390687a^4u^{14} + \cdots - 3.11449a + 4.18804 \\ 0.676411a^5u^{14} + 1.24879a^4u^{14} + \cdots - 0.707745a - 1.12050 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.0277234a^5u^{14} - 0.151646a^4u^{14} + \cdots - 3.44125a - 1.92141 \\ -0.150719a^5u^{14} - 0.395079a^4u^{14} + \cdots + 2.67683a + 0.0983859 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.0946863a^5u^{14} - 0.100970a^4u^{14} + \cdots + 1.69746a + 0.622719 \\ -0.126657a^5u^{14} - 0.357588a^4u^{14} + \cdots + 1.45430a - 0.523499 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.256222a^5u^{14} - 0.295492a^4u^{14} + \cdots - 7.25786a - 2.41631$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u^{15}+7u^{14}+\cdots+4u^2-1)^6$
c_2, c_7	$(u^{15}-u^{14}+\cdots+2u-1)^6$
c_3	$(u^{15}+u^{14}+\cdots-4u-1)^6$
c_4, c_6, c_{10} c_{11}	$u^{90}-u^{89}+\cdots+462430u+196657$
c_5, c_{12}	$u^{90}-3u^{89}+\cdots-78508u+9713$
c_8	$(u^{15}-5u^{14}+\cdots+12u^3-1)^6$
c_9	$(u^3-u^2+1)^{30}$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$(y^{15}+3y^{14}+\cdots+8y-1)^6$
c_2, c_7	$(y^{15}+7y^{14}+\cdots+4y^2-1)^6$
c_3	$(y^{15}-y^{14}+\cdots+16y-1)^6$
c_4, c_6, c_{10} c_{11}	$y^{90}+75y^{89}+\cdots-18280277704y+38673975649$
c_5, c_{12}	$y^{90}-25y^{89}+\cdots-3696637176y+94342369$
c_8	$(y^{15}+11y^{14}+\cdots-84y^2-1)^6$
c_9	$(y^3-y^2+2y-1)^{30}$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.385605+0.867795I$ $a=\ \ 1.39356-0.27234I$ $b=-0.39588-1.73424I$	$1.55950+1.16728I$	$2.00066+0.98460I$
$u=-0.385605+0.867795I$ $a=-1.11988-1.14279I$ $b=-0.00931+2.32258I$	$1.55950-4.48897I$	$2.00066+6.94350I$
$u=-0.385605+0.867795I$ $a=-1.40402-1.01795I$ $b=\ \ 0.035932-0.206750I$	$5.69708-1.66084I$	$8.52993+3.96405I$
$u=-0.385605+0.867795I$ $a=\ \ 1.80466-0.76880I$ $b=-1.59033+0.71496I$	$5.69708-1.66084I$	$8.52993+3.96405I$
$u=-0.385605+0.867795I$ $a=-2.82748-0.45062I$ $b=\ \ 0.58840+1.43483I$	$1.55950-4.48897I$	$2.00066+6.94350I$
$u=-0.385605+0.867795I$ $a=\ \ 2.85623+0.51697I$ $b=-1.35659-1.63953I$	$1.55950+1.16728I$	$2.00066+0.98460I$
$u=-0.385605-0.867795I$ $a=\ \ 1.39356+0.27234I$ $b=-0.39588+1.73424I$	$1.55950-1.16728I$	$2.00066-0.98460I$
$u=-0.385605-0.867795I$ $a=-1.11988+1.14279I$ $b=-0.00931-2.32258I$	$1.55950+4.48897I$	$2.00066-6.94350I$
$u=-0.385605-0.867795I$ $a=-1.40402+1.01795I$ $b=\ \ 0.035932+0.206750I$	$5.69708+1.66084I$	$8.52993-3.96405I$
$u=-0.385605-0.867795I$ $a=\ \ 1.80466+0.76880I$ $b=-1.59033-0.71496I$	$5.69708+1.66084I$	$8.52993-3.96405I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.385605-0.867795I$ $a=-2.82748+0.45062I$ $b=\ 0.58840-1.43483I$	$1.55950+4.48897I$	$2.00066-6.94350I$
$u=-0.385605-0.867795I$ $a=\ 2.85623-0.51697I$ $b=-1.35659+1.63953I$	$1.55950-1.16728I$	$2.00066-0.98460I$
$u=\ 0.146928+1.062740I$ $a=\ 0.845731+0.455155I$ $b=-0.758939+1.001010I$	$0.08992-4.90214I$	$-3.33798+5.65067I$
$u=\ 0.146928+1.062740I$ $a=\ 0.244032-0.733403I$ $b=\ 0.082293-0.199938I$	$0.089924+0.754105I$	$-3.33798-0.30823I$
$u=\ 0.146928+1.062740I$ $a=\ 1.213950+0.311169I$ $b=-1.039850-0.209665I$	$0.089924+0.754105I$	$-3.33798-0.30823I$
$u=\ 0.146928+1.062740I$ $a=\ 1.46969+1.40857I$ $b=-1.92743+0.11527I$	$4.22751-2.07402I$	$3.19129+2.67122I$
$u=\ 0.146928+1.062740I$ $a=-2.36213-0.52233I$ $b=\ 1.53477-0.30619I$	$0.08992-4.90214I$	$-3.33798+5.65067I$
$u=\ 0.146928+1.062740I$ $a=-1.54708-2.05690I$ $b=\ 1.68670+0.26256I$	$4.22751-2.07402I$	$3.19129+2.67122I$
$u=\ 0.146928-1.062740I$ $a=\ 0.845731-0.455155I$ $b=-0.758939-1.001010I$	$0.08992+4.90214I$	$-3.33798-5.65067I$
$u=\ 0.146928-1.062740I$ $a=\ 0.244032+0.733403I$ $b=\ 0.082293+0.199938I$	$0.089924-0.754105I$	$-3.33798+0.30823I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.146928 - 1.062740I$ $a = 1.213950 - 0.311169I$ $b = -1.039850 + 0.209665I$	$0.089924 - 0.754105I$	$-3.33798 + 0.30823I$
$u = 0.146928 - 1.062740I$ $a = 1.46969 - 1.40857I$ $b = -1.92743 - 0.11527I$	$4.22751 + 2.07402I$	$3.19129 - 2.67122I$
$u = 0.146928 - 1.062740I$ $a = -2.36213 + 0.52233I$ $b = 1.53477 + 0.30619I$	$0.08992 + 4.90214I$	$-3.33798 - 5.65067I$
$u = 0.146928 - 1.062740I$ $a = -1.54708 + 2.05690I$ $b = 1.68670 - 0.26256I$	$4.22751 + 2.07402I$	$3.19129 - 2.67122I$
$u = -0.715401 + 0.518352I$ $a = 0.506703 - 1.023280I$ $b = -0.007263 + 1.157640I$	$9.58164 - 1.50523I$	$11.17084 + 2.74048I$
$u = -0.715401 + 0.518352I$ $a = -0.786437 - 0.319557I$ $b = -0.932520 + 0.393953I$	$5.44406 + 1.32289I$	$4.64158 - 0.23897I$
$u = -0.715401 + 0.518352I$ $a = 0.074786 - 1.202470I$ $b = -1.19118 + 0.94425I$	$5.44406 + 1.32289I$	$4.64158 - 0.23897I$
$u = -0.715401 + 0.518352I$ $a = 0.268686 - 0.125191I$ $b = 1.293500 + 0.181955I$	$5.44406 - 4.33335I$	$4.64158 + 5.71992I$
$u = -0.715401 + 0.518352I$ $a = -1.20243 + 1.21904I$ $b = 0.426945 - 0.162765I$	$9.58164 - 1.50523I$	$11.17084 + 2.74048I$
$u = -0.715401 + 0.518352I$ $a = -0.08222 + 1.79499I$ $b = 1.147010 - 0.769151I$	$5.44406 - 4.33335I$	$4.64158 + 5.71992I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.715401-0.518352I$ $a=\ \ 0.506703+1.023280I$ $b=-0.007263-1.157640I$	$9.58164+1.50523I$	$11.17084-2.74048I$
$u=-0.715401-0.518352I$ $a=-0.786437+0.319557I$ $b=-0.932520-0.393953I$	$5.44406-1.32289I$	$4.64158+0.23897I$
$u=-0.715401-0.518352I$ $a=\ \ 0.074786+1.202470I$ $b=-1.19118-0.94425I$	$5.44406-1.32289I$	$4.64158+0.23897I$
$u=-0.715401-0.518352I$ $a=\ \ 0.268686+0.125191I$ $b=\ \ 1.293500-0.181955I$	$5.44406+4.33335I$	$4.64158-5.71992I$
$u=-0.715401-0.518352I$ $a=-1.20243-1.21904I$ $b=\ \ 0.426945+0.162765I$	$9.58164+1.50523I$	$11.17084-2.74048I$
$u=-0.715401-0.518352I$ $a=-0.08222-1.79499I$ $b=\ \ 1.147010+0.769151I$	$5.44406+4.33335I$	$4.64158-5.71992I$
$u=\ \ 0.758945+0.422629I$ $a=\ \ 0.246369-1.004030I$ $b=\ \ 0.611721+1.055930I$	$4.92757-1.26387I$	$3.53451+0.17150I$
$u=\ \ 0.758945+0.422629I$ $a=\ \ 0.735819-0.752840I$ $b=\ \ 1.54405+1.84732I$	$9.06515-4.09199I$	$10.06378+3.15094I$
$u=\ \ 0.758945+0.422629I$ $a=-0.577307-0.317344I$ $b=-0.629308-0.402043I$	$4.92757-1.26387I$	$3.53451+0.17150I$
$u=\ \ 0.758945+0.422629I$ $a=-1.31979+0.80102I$ $b=-1.26774-1.79419I$	$9.06515-4.09199I$	$10.06378+3.15094I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.758945 + 0.422629I$ $a = -0.45532 + 1.53780I$ $b = -1.42772 - 1.00598I$	$4.92757 - 6.92011I$	$3.53451 + 6.13039I$
$u = 0.758945 + 0.422629I$ $a = 0.345436 - 0.180063I$ $b = 1.65389 + 0.39221I$	$4.92757 - 6.92011I$	$3.53451 + 6.13039I$
$u = 0.758945 - 0.422629I$ $a = 0.246369 + 1.004030I$ $b = 0.611721 - 1.055930I$	$4.92757 + 1.26387I$	$3.53451 - 0.17150I$
$u = 0.758945 - 0.422629I$ $a = 0.735819 + 0.752840I$ $b = 1.54405 - 1.84732I$	$9.06515 + 4.09199I$	$10.06378 - 3.15094I$
$u = 0.758945 - 0.422629I$ $a = -0.577307 + 0.317344I$ $b = -0.629308 + 0.402043I$	$4.92757 + 1.26387I$	$3.53451 - 0.17150I$
$u = 0.758945 - 0.422629I$ $a = -1.31979 - 0.80102I$ $b = -1.26774 + 1.79419I$	$9.06515 + 4.09199I$	$10.06378 - 3.15094I$
$u = 0.758945 - 0.422629I$ $a = -0.45532 - 1.53780I$ $b = -1.42772 + 1.00598I$	$4.92757 + 6.92011I$	$3.53451 - 6.13039I$
$u = 0.758945 - 0.422629I$ $a = 0.345436 + 0.180063I$ $b = 1.65389 - 0.39221I$	$4.92757 + 6.92011I$	$3.53451 - 6.13039I$
$u = 0.426893 + 1.085670I$ $a = -0.360764 - 1.264230I$ $b = 1.012290 - 0.008853I$	$-2.29749 + 0.77528I$	$-5.67348 - 1.49727I$
$u = 0.426893 + 1.085670I$ $a = 1.43808 + 0.24695I$ $b = -0.78296 + 1.34819I$	$-2.29749 + 6.43153I$	$-5.67348 - 7.45617I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.426893 + 1.085670I$ $a = 1.34979 + 0.97420I$ $b = -1.66027 - 0.16387I$	$-2.29749 + 0.77528I$	$-5.67348 - 1.49727I$
$u = 0.426893 + 1.085670I$ $a = -2.28204 + 0.34468I$ $b = 1.45212 - 1.39219I$	$-2.29749 + 6.43153I$	$-5.67348 - 7.45617I$
$u = 0.426893 + 1.085670I$ $a = 1.56592 - 1.89697I$ $b = 0.61352 + 2.21467I$	$1.84009 + 3.60340I$	$0.85579 - 4.47672I$
$u = 0.426893 + 1.085670I$ $a = -1.37375 + 2.29651I$ $b = -0.58547 - 2.50177I$	$1.84009 + 3.60340I$	$0.85579 - 4.47672I$
$u = 0.426893 - 1.085670I$ $a = -0.360764 + 1.264230I$ $b = 1.012290 + 0.008853I$	$-2.29749 - 0.77528I$	$-5.67348 + 1.49727I$
$u = 0.426893 - 1.085670I$ $a = 1.43808 - 0.24695I$ $b = -0.78296 - 1.34819I$	$-2.29749 - 6.43153I$	$-5.67348 + 7.45617I$
$u = 0.426893 - 1.085670I$ $a = 1.34979 - 0.97420I$ $b = -1.66027 + 0.16387I$	$-2.29749 - 0.77528I$	$-5.67348 + 1.49727I$
$u = 0.426893 - 1.085670I$ $a = -2.28204 - 0.34468I$ $b = 1.45212 + 1.39219I$	$-2.29749 - 6.43153I$	$-5.67348 + 7.45617I$
$u = 0.426893 - 1.085670I$ $a = 1.56592 + 1.89697I$ $b = 0.61352 - 2.21467I$	$1.84009 - 3.60340I$	$0.85579 + 4.47672I$
$u = 0.426893 - 1.085670I$ $a = -1.37375 - 2.29651I$ $b = -0.58547 + 2.50177I$	$1.84009 - 3.60340I$	$0.85579 + 4.47672I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.594997+1.040830I$ $a=\ \ 0.957853-0.988756I$ $b=-1.43936-0.69293I$	$3.89372-6.34664I$	$2.20327+5.56972I$
$u=-0.594997+1.040830I$ $a=-0.536209+0.198387I$ $b=\ \ 0.806559-0.874865I$	$8.03130-3.51852I$	$8.73253+2.59027I$
$u=-0.594997+1.040830I$ $a=\ \ 1.51064+0.90579I$ $b=-0.543239-0.683890I$	$8.03130-3.51852I$	$8.73253+2.59027I$
$u=-0.594997+1.040830I$ $a=-1.59885+0.80930I$ $b=\ \ 2.27503+0.14919I$	$3.89372-0.69040I$	$2.20327-0.38918I$
$u=-0.594997+1.040830I$ $a=-0.56621+1.84268I$ $b=\ \ 1.399940-0.133497I$	$3.89372-0.69040I$	$2.20327-0.38918I$
$u=-0.594997+1.040830I$ $a=\ \ 1.94278-0.82970I$ $b=-2.03684-0.49943I$	$3.89372-6.34664I$	$2.20327+5.56972I$
$u=-0.594997-1.040830I$ $a=\ \ 0.957853+0.988756I$ $b=-1.43936+0.69293I$	$3.89372+6.34664I$	$2.20327-5.56972I$
$u=-0.594997-1.040830I$ $a=-0.536209-0.198387I$ $b=\ \ 0.806559+0.874865I$	$8.03130+3.51852I$	$8.73253-2.59027I$
$u=-0.594997-1.040830I$ $a=\ \ 1.51064-0.90579I$ $b=-0.543239+0.683890I$	$8.03130+3.51852I$	$8.73253-2.59027I$
$u=-0.594997-1.040830I$ $a=-1.59885-0.80930I$ $b=\ \ 2.27503-0.14919I$	$3.89372+0.69040I$	$2.20327+0.38918I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.594997-1.040830I$ $a=-0.56621-1.84268I$ $b=\ \ 1.399940+0.133497I$	$3.89372+0.69040I$	$2.20327+0.38918I$
$u=-0.594997-1.040830I$ $a=\ \ 1.94278+0.82970I$ $b=-2.03684+0.49943I$	$3.89372+6.34664I$	$2.20327-5.56972I$
$u=\ \ 0.594032+1.095620I$ $a=\ \ 0.824511+0.540339I$ $b=-0.741965+0.769330I$	$2.93698+6.38968I$	$0.34485-4.41190I$
$u=\ \ 0.594032+1.095620I$ $a=-1.64476+0.05084I$ $b=\ \ 1.38586-0.86842I$	$2.93698+6.38968I$	$0.34485-4.41190I$
$u=\ \ 0.594032+1.095620I$ $a=-1.59275-1.59922I$ $b=\ \ 1.98971-0.52935I$	$2.93698+12.04590I$	$0.34485-10.37079I$
$u=\ \ 0.594032+1.095620I$ $a=\ \ 2.18034+0.77640I$ $b=-2.56791+0.82953I$	$2.93698+12.04590I$	$0.34485-10.37079I$
$u=\ \ 0.594032+1.095620I$ $a=\ \ 2.79694+0.07274I$ $b=-2.21149+2.34261I$	$7.07456+9.21780I$	$6.87411-7.39135I$
$u=\ \ 0.594032+1.095620I$ $a=-3.10516-0.37961I$ $b=\ \ 2.29852-2.07623I$	$7.07456+9.21780I$	$6.87411-7.39135I$
$u=\ \ 0.594032-1.095620I$ $a=\ \ 0.824511-0.540339I$ $b=-0.741965-0.769330I$	$2.93698-6.38968I$	$0.34485+4.41190I$
$u=\ \ 0.594032-1.095620I$ $a=-1.64476-0.05084I$ $b=\ \ 1.38586+0.86842I$	$2.93698-6.38968I$	$0.34485+4.41190I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.594032 - 1.095620I$ $a = -1.59275 + 1.59922I$ $b = 1.98971 + 0.52935I$	$2.93698 - 12.04590I$	$0.34485 + 10.37079I$
$u = 0.594032 - 1.095620I$ $a = 2.18034 - 0.77640I$ $b = -2.56791 - 0.82953I$	$2.93698 - 12.04590I$	$0.34485 + 10.37079I$
$u = 0.594032 - 1.095620I$ $a = 2.79694 - 0.07274I$ $b = -2.21149 - 2.34261I$	$7.07456 - 9.21780I$	$6.87411 + 7.39135I$
$u = 0.594032 - 1.095620I$ $a = -3.10516 + 0.37961I$ $b = 2.29852 + 2.07623I$	$7.07456 - 9.21780I$	$6.87411 + 7.39135I$
$u = 0.538411$ $a = 0.749650 + 0.385618I$ $b = 0.655215 - 0.882369I$	$0.48639 + 2.82812I$	$-2.07315 - 2.97945I$
$u = 0.538411$ $a = 0.749650 - 0.385618I$ $b = 0.655215 + 0.882369I$	$0.48639 - 2.82812I$	$-2.07315 + 2.97945I$
$u = 0.538411$ $a = -0.46055 + 1.37138I$ $b = -0.756394 + 0.267456I$	$0.48639 + 2.82812I$	$-2.07315 - 2.97945I$
$u = 0.538411$ $a = -0.46055 - 1.37138I$ $b = -0.756394 - 0.267456I$	$0.48639 - 2.82812I$	$-2.07315 + 2.97945I$
$u = 0.538411$ $a = 0.38298 + 1.40881I$ $b = -0.13403 + 1.64328I$	4.62398	$4.45612 + 0.I$
$u = 0.538411$ $a = 0.38298 - 1.40881I$ $b = -0.13403 - 1.64328I$	4.62398	$4.45612 + 0.I$

III.

$\boldsymbol{I_3^u = \langle -3u^{25}-u^{24}+\cdots+b+2,\ u^{25}-2u^{24}+\cdots+a-4,\ u^{26}+7u^{24}+\cdots+3u^2+1\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} u \\ u^3+u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u^3 \\ u^3+u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^3 \\ u^5+u^3+u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u^8+u^6+u^4+1 \\ u^{10}+2u^8+3u^6+2u^4+u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^{25}+2u^{24}+\cdots+2u+4 \\ 3u^{25}+u^{24}+\cdots+2u-2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -2u^{25}-u^{24}+\cdots-5u+1 \\ u^{24}+u^{23}+\cdots+2u+2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -u^{25}+3u^{24}+\cdots+u+3 \\ 2u^{25}+13u^{23}+\cdots+u-2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^{24}-2u^{23}+\cdots-2u^2-4u \\ -u^{25}+u^{24}+\cdots+u+2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u^{25}+u^{24}+\cdots+2u+3 \\ 3u^{25}+u^{24}+\cdots+2u-1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 8u^{25}+8u^{24}+52u^{23}+45u^{22}+171u^{21}+130u^{20}+355u^{19}+230u^{18}+507u^{17}+270u^{16}+524u^{15}+228u^{14}+428u^{13}+174u^{12}+316u^{11}+159u^{10}+232u^9+132u^8+133u^7+70u^6+52u^5+20u^4+8u^3+9u^2+6u+1$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{26} - 14u^{25} + \cdots - 6u + 1$
c_2	$u^{26} + 7u^{24} + \cdots + 3u^2 + 1$
c_3	$u^{26} - 2u^{24} + \cdots - 2u + 1$
c_4, c_{11}	$u^{26} + 13u^{24} + \cdots - u + 1$
c_5, c_{12}	$u^{26} - u^{25} + \cdots + 2u + 1$
c_6, c_{10}	$u^{26} + 13u^{24} + \cdots + u + 1$
c_7	$u^{26} + 7u^{24} + \cdots + 3u^2 + 1$
c_8	$u^{26} + 7u^{24} + \cdots + 3u^2 + 1$
c_9	$u^{26} + 7u^{25} + \cdots - 4u^2 + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{26} + 2y^{25} + \cdots + 10y + 1$
c_2, c_7	$y^{26} + 14y^{25} + \cdots + 6y + 1$
c_3	$y^{26} - 4y^{25} + \cdots + 6y + 1$
c_4, c_6, c_{10} c_{11}	$y^{26} + 26y^{25} + \cdots + 19y + 1$
c_5, c_{12}	$y^{26} - 7y^{25} + \cdots - 2y + 1$
c_8	$y^{26} + 14y^{25} + \cdots + 6y + 1$
c_9	$y^{26} - 5y^{25} + \cdots - 8y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.359440+0.910887I$ $a=\ 1.56618+0.26862I$ $b=-0.862450+0.400507I$	$5.10436-1.47433I$	$-7.05374-0.92833I$
$u=-0.359440-0.910887I$ $a=\ 1.56618-0.26862I$ $b=-0.862450-0.400507I$	$5.10436+1.47433I$	$-7.05374+0.92833I$
$u=\ 0.402070+1.012970I$ $a=-2.19445+1.70140I$ $b=\ 0.00051-2.57273I$	$0.19383+5.11284I$	$-4.31585-8.46349I$
$u=\ 0.402070-1.012970I$ $a=-2.19445-1.70140I$ $b=\ 0.00051+2.57273I$	$0.19383-5.11284I$	$-4.31585+8.46349I$
$u=\ 0.789971+0.415474I$ $a=-0.781487+0.606884I$ $b=-1.13923-1.51688I$	$7.57489-3.71076I$	$3.24837+0.96954I$
$u=\ 0.789971-0.415474I$ $a=-0.781487-0.606884I$ $b=-1.13923+1.51688I$	$7.57489+3.71076I$	$3.24837-0.96954I$
$u=-0.699594+0.550884I$ $a=-0.907068+0.915280I$ $b=\ 0.266153-0.584489I$	$8.41284-1.01125I$	$3.87939-0.08794I$
$u=-0.699594-0.550884I$ $a=-0.907068-0.915280I$ $b=\ 0.266153+0.584489I$	$8.41284+1.01125I$	$3.87939+0.08794I$
$u=\ 0.510275+1.047840I$ $a=\ 0.60513-2.04696I$ $b=\ 1.21970+1.77160I$	$1.00464+1.24764I$	$-0.638665-0.006398I$
$u=\ 0.510275-1.047840I$ $a=\ 0.60513+2.04696I$ $b=\ 1.21970-1.77160I$	$1.00464-1.24764I$	$-0.638665+0.006398I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.339378+1.125810I$ $a=\ \ 0.376376+0.395893I$ $b=-0.357297-0.084276I$	$-1.72686+0.90484I$	$-3.78242-2.96504I$
$u=-0.339378-1.125810I$ $a=\ \ 0.376376-0.395893I$ $b=-0.357297+0.084276I$	$-1.72686-0.90484I$	$-3.78242+2.96504I$
$u=-0.585961+1.027330I$ $a=-1.005760-0.272668I$ $b=\ \ 0.637491-0.137812I$	$6.98807-3.93735I$	$0.51867+6.15974I$
$u=-0.585961-1.027330I$ $a=-1.005760+0.272668I$ $b=\ \ 0.637491+0.137812I$	$6.98807+3.93735I$	$0.51867-6.15974I$
$u=\ \ 0.131481+1.188190I$ $a=\ \ 0.66452+1.27426I$ $b=-1.097050-0.398827I$	$2.33267-1.32676I$	$-4.14910-0.80898I$
$u=\ \ 0.131481-1.188190I$ $a=\ \ 0.66452-1.27426I$ $b=-1.097050+0.398827I$	$2.33267+1.32676I$	$-4.14910+0.80898I$
$u=\ \ 0.212681+0.768560I$ $a=\ \ 2.44540+0.16272I$ $b=-0.95827+1.49565I$	$1.38754-2.26974I$	$-0.04281+6.48249I$
$u=\ \ 0.212681-0.768560I$ $a=\ \ 2.44540-0.16272I$ $b=-0.95827-1.49565I$	$1.38754+2.26974I$	$-0.04281-6.48249I$
$u=-0.528659+1.117570I$ $a=-0.407474+0.070848I$ $b=\ \ 0.211681-0.167641I$	$-0.40252-8.55446I$	$0.18681+7.57743I$
$u=-0.528659-1.117570I$ $a=-0.407474-0.070848I$ $b=\ \ 0.211681+0.167641I$	$-0.40252+8.55446I$	$0.18681-7.57743I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.605745 + 1.102710I$ $a = 2.38383 + 0.24010I$ $b = -1.89158 + 1.74570I$	$5.54067 + 8.95210I$	$0.55413 - 5.52648I$
$u = 0.605745 - 1.102710I$ $a = 2.38383 - 0.24010I$ $b = -1.89158 - 1.74570I$	$5.54067 - 8.95210I$	$0.55413 + 5.52648I$
$u = -0.650503 + 0.273818I$ $a = -0.647303 + 0.420209I$ $b = 0.224517 - 0.235754I$	$1.99064 + 3.95173I$	$4.07496 - 4.85079I$
$u = -0.650503 - 0.273818I$ $a = -0.647303 - 0.420209I$ $b = 0.224517 + 0.235754I$	$1.99064 - 3.95173I$	$4.07496 + 4.85079I$
$u = 0.511312 + 0.470800I$ $a = -1.097890 - 0.795276I$ $b = 0.745837 - 1.171260I$	$2.72258 + 2.99412I$	$4.52024 - 3.90167I$
$u = 0.511312 - 0.470800I$ $a = -1.097890 + 0.795276I$ $b = 0.745837 + 1.171260I$	$2.72258 - 2.99412I$	$4.52024 + 3.90167I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^{15}+7u^{14}+\cdots+4u^2-1)^6)(u^{26}-14u^{25}+\cdots-6u+1)$ $\cdot(u^{44}+21u^{43}+\cdots+112u+64)$
c_2	$((u^{15}-u^{14}+\cdots+2u-1)^6)(u^{26}+7u^{24}+\cdots+3u^2+1)$ $\cdot(u^{44}+7u^{43}+\cdots+68u+8)$
c_3	$((u^{15}+u^{14}+\cdots-4u-1)^6)(u^{26}-2u^{24}+\cdots-2u+1)$ $\cdot(u^{44}-7u^{43}+\cdots-15900u+2088)$
c_4, c_{11}	$(u^{26}+13u^{24}+\cdots-u+1)(u^{44}+20u^{42}+\cdots+3u+1)$ $\cdot(u^{90}-u^{89}+\cdots+462430u+196657)$
c_5, c_{12}	$(u^{26}-u^{25}+\cdots+2u+1)(u^{44}-u^{43}+\cdots-2u+1)$ $\cdot(u^{90}-3u^{89}+\cdots-78508u+9713)$
c_6, c_{10}	$(u^{26}+13u^{24}+\cdots+u+1)(u^{44}+20u^{42}+\cdots+3u+1)$ $\cdot(u^{90}-u^{89}+\cdots+462430u+196657)$
c_7	$((u^{15}-u^{14}+\cdots+2u-1)^6)(u^{26}+7u^{24}+\cdots+3u^2+1)$ $\cdot(u^{44}+7u^{43}+\cdots+68u+8)$
c_8	$((u^{15}-5u^{14}+\cdots+12u^3-1)^6)(u^{26}+7u^{24}+\cdots+3u^2+1)$ $\cdot(u^{44}+35u^{43}+\cdots+9095124u+659432)$
c_9	$((u^3-u^2+1)^{30})(u^{26}+7u^{25}+\cdots-4u^2+1)$ $\cdot(u^{44}+44u^{43}+\cdots+819200u+32768)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^{15}+3y^{14}+\cdots+8y-1)^6)(y^{26}+2y^{25}+\cdots+10y+1)$ $\cdot(y^{44}+5y^{43}+\cdots+2816y+4096)$
c_2, c_7	$((y^{15}+7y^{14}+\cdots+4y^2-1)^6)(y^{26}+14y^{25}+\cdots+6y+1)$ $\cdot(y^{44}+21y^{43}+\cdots+112y+64)$
c_3	$((y^{15}-y^{14}+\cdots+16y-1)^6)(y^{26}-4y^{25}+\cdots+6y+1)$ $\cdot(y^{44}-5y^{43}+\cdots-12038544y+4359744)$
c_4, c_6, c_{10} c_{11}	$(y^{26}+26y^{25}+\cdots+19y+1)(y^{44}+40y^{43}+\cdots-19y+1)$ $\cdot(y^{90}+75y^{89}+\cdots-18280277704y+38673975649)$
c_5, c_{12}	$(y^{26}-7y^{25}+\cdots-2y+1)(y^{44}-9y^{43}+\cdots-64y^2+1)$ $\cdot(y^{90}-25y^{89}+\cdots-3696637176y+94342369)$
c_8	$((y^{15}+11y^{14}+\cdots-84y^2-1)^6)(y^{26}+14y^{25}+\cdots+6y+1)$ $\cdot(y^{44}+25y^{43}+\cdots+6217463314032y+434850562624)$
c_9	$((y^3-y^2+2y-1)^{30})(y^{26}-5y^{25}+\cdots-8y+1)$ $\cdot(y^{44}-6y^{43}+\cdots-6442450944y+1073741824)$