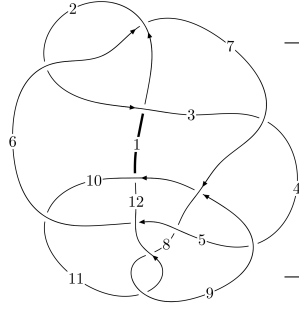
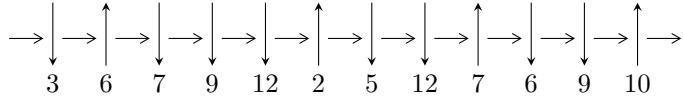


12n₀₂₈₅ (K12n₀₂₈₅)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle u^{16} + 4u^{15} + \dots + b - 1, -u^{16} - 3u^{15} + \dots + 2a - 3, u^{17} + 5u^{16} + \dots - 3u - 2 \rangle$$

$$I_2^u = \langle -u^9 + 2u^8 - 4u^7 + 4u^6 - 6u^5 + 4u^4 - 5u^3 + 2u^2 + b - 2u + 1, \\ -2u^9 + 3u^8 - 6u^7 + 4u^6 - 8u^5 + 4u^4 - 7u^3 + u^2 + a - 3u + 2, \\ u^{10} - 2u^9 + 4u^8 - 4u^7 + 6u^6 - 5u^5 + 6u^4 - 3u^3 + 3u^2 - 2u + 1 \rangle$$

$$I_3^u = \langle -u^5 + u^4 + u^2a - au - u^2 + b - u + 1, u^5a + 2u^5 + u^4 - u^3 + a^2 + 3au + u^2 + 4u + 4, \\ u^6 - u^5 + u^4 + 2u^2 - u + 1 \rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 39 representations.

¹The 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>).

²All coefficients of polynomials are rational numbers. But the coefficients are sometimes approximated in decimal forms when there is not enough margin.

$$I_1^u = \langle u^{16} + 4u^{15} + \dots + b - 1, -u^{16} - 3u^{15} + \dots + 2a - 3, u^{17} + 5u^{16} + \dots - 3u - 2 \rangle$$

I.

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u^4 + u^2 + 1 \\ u^4 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} \frac{1}{2}u^{16} + \frac{3}{2}u^{15} + \dots - \frac{1}{2}u + \frac{3}{2} \\ -u^{16} - 4u^{15} + \dots - u + 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} \frac{1}{2}u^{16} + \frac{3}{2}u^{15} + \dots - \frac{1}{2}u + \frac{3}{2} \\ u^{16} + 3u^{15} + \dots - 3u - 1 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^2 + 1 \\ -u^4 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} \frac{3}{2}u^{16} + \frac{15}{2}u^{15} + \dots - \frac{7}{2}u - \frac{5}{2} \\ 2u^{15} + 7u^{14} + \dots - 4u - 3 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} \frac{3}{2}u^{16} + \frac{15}{2}u^{15} + \dots - \frac{7}{2}u - \frac{5}{2} \\ 2u^{16} + 9u^{15} + \dots - 4u - 3 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} \frac{1}{2}u^{16} + \frac{3}{2}u^{15} + \dots - \frac{1}{2}u + \frac{1}{2} \\ -u^{16} - 6u^{15} + \dots + 3u + 3 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -\frac{5}{2}u^{16} - \frac{27}{2}u^{15} + \dots + \frac{13}{2}u + \frac{13}{2} \\ -2u^{16} - 12u^{15} + \dots + 6u + 7 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $-u^{16} - 6u^{15} - 20u^{14} - 43u^{13} - 71u^{12} - 91u^{11} - 94u^{10} - 58u^9 + 66u^7 + 87u^6 + 92u^5 + 60u^4 + 46u^3 + 17u^2 + 17u - 4$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{17} + 5u^{16} + \dots - 35u - 4$
c_2, c_6	$u^{17} - 5u^{16} + \dots - 3u + 2$
c_3	$u^{17} + 5u^{16} + \dots + 201u + 74$
c_4, c_{10}	$u^{17} + 13u^{15} + \dots + 4u + 1$
c_5, c_7	$u^{17} - u^{16} + \dots + 2u + 1$
c_8, c_{11}	$u^{17} - 10u^{16} + \dots + 27u - 4$
c_9, c_{12}	$u^{17} + 3u^{16} + \dots - 8u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{17} + 17y^{16} + \dots + 49y - 16$
c_2, c_6	$y^{17} + 5y^{16} + \dots - 35y - 4$
c_3	$y^{17} + 29y^{16} + \dots - 126395y - 5476$
c_4, c_{10}	$y^{17} + 26y^{16} + \dots - 10y - 1$
c_5, c_7	$y^{17} - 25y^{16} + \dots + 4y - 1$
c_8, c_{11}	$y^{17} + 2y^{16} + \dots - 143y - 16$
c_9, c_{12}	$y^{17} - 15y^{16} + \dots + 16y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.999402$ $a = 0.387652$ $b = -0.774608$	-3.45333	-1.57930
$u = -0.225183 + 0.839513I$ $a = 0.457066 - 0.305622I$ $b = 0.260858 - 0.479622I$	$-0.515123 - 1.230730I$	$-4.57965 + 6.11157I$
$u = -0.225183 - 0.839513I$ $a = 0.457066 + 0.305622I$ $b = 0.260858 + 0.479622I$	$-0.515123 + 1.230730I$	$-4.57965 - 6.11157I$
$u = -0.902975 + 0.779498I$ $a = -0.37268 + 1.47715I$ $b = -1.18710 + 0.79283I$	$5.52032 - 2.59660I$	$-1.98291 + 2.57071I$
$u = -0.902975 - 0.779498I$ $a = -0.37268 - 1.47715I$ $b = -1.18710 - 0.79283I$	$5.52032 + 2.59660I$	$-1.98291 - 2.57071I$
$u = -1.013990 + 0.825716I$ $a = 1.04491 - 1.15054I$ $b = 1.67420 + 0.11880I$	$2.66130 + 5.14311I$	$-3.31224 - 2.06906I$
$u = -1.013990 - 0.825716I$ $a = 1.04491 + 1.15054I$ $b = 1.67420 - 0.11880I$	$2.66130 - 5.14311I$	$-3.31224 + 2.06906I$
$u = -0.792289 + 1.041050I$ $a = -1.139370 + 0.603283I$ $b = -1.78949 + 0.05972I$	$4.68149 - 3.71646I$	$-2.79518 + 2.82261I$
$u = -0.792289 - 1.041050I$ $a = -1.139370 - 0.603283I$ $b = -1.78949 - 0.05972I$	$4.68149 + 3.71646I$	$-2.79518 - 2.82261I$
$u = 0.065367 + 0.651578I$ $a = 0.870762 - 0.440011I$ $b = -0.015136 - 0.797710I$	$-0.691744 - 1.119700I$	$-6.04337 + 5.63794I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.065367 - 0.651578I$		
$a = 0.870762 + 0.440011I$	$-0.691744 + 1.119700I$	$-6.04337 - 5.63794I$
$b = -0.015136 + 0.797710I$		
$u = 0.354914 + 0.549103I$		
$a = -0.916291 + 0.819903I$	$0.02980 + 3.01264I$	$-7.09672 + 0.35044I$
$b = 0.934133 + 0.713219I$		
$u = 0.354914 - 0.549103I$		
$a = -0.916291 - 0.819903I$	$0.02980 - 3.01264I$	$-7.09672 - 0.35044I$
$b = 0.934133 - 0.713219I$		
$u = 0.398162 + 1.288650I$		
$a = -0.300696 - 0.167666I$	$-7.74200 + 4.95608I$	$-4.59429 - 5.14858I$
$b = -0.720067 + 0.510972I$		
$u = 0.398162 - 1.288650I$		
$a = -0.300696 + 0.167666I$	$-7.74200 - 4.95608I$	$-4.59429 + 5.14858I$
$b = -0.720067 - 0.510972I$		
$u = -0.883711 + 1.061310I$		
$a = 0.91247 - 1.36079I$	$1.89495 - 12.06910I$	$-4.30600 + 6.19242I$
$b = 2.22990 - 0.92943I$		
$u = -0.883711 - 1.061310I$		
$a = 0.91247 + 1.36079I$	$1.89495 + 12.06910I$	$-4.30600 - 6.19242I$
$b = 2.22990 + 0.92943I$		

II.

$$I_2^u = \langle -u^9 + 2u^8 + \dots + b + 1, -2u^9 + 3u^8 + \dots + a + 2, u^{10} - 2u^9 + \dots - 2u + 1 \rangle$$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u^4 + u^2 + 1 \\ u^4 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 2u^9 - 3u^8 + 6u^7 - 4u^6 + 8u^5 - 4u^4 + 7u^3 - u^2 + 3u - 2 \\ u^9 - 2u^8 + 4u^7 - 4u^6 + 6u^5 - 4u^4 + 5u^3 - 2u^2 + 2u - 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 2u^9 - 3u^8 + 6u^7 - 4u^6 + 8u^5 - 4u^4 + 7u^3 - u^2 + 3u - 2 \\ u^9 - 2u^8 + 4u^7 - 4u^6 + 6u^5 - 5u^4 + 5u^3 - 3u^2 + 2u - 2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^2 + 1 \\ -u^4 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 2u^9 - 3u^8 + 6u^7 - 5u^6 + 9u^5 - 6u^4 + 8u^3 - 3u^2 + 4u - 3 \\ u^9 - 2u^8 + 4u^7 - 5u^6 + 7u^5 - 6u^4 + 6u^3 - 4u^2 + 3u - 2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -2u^9 + 3u^8 - 6u^7 + 5u^6 - 9u^5 + 6u^4 - 8u^3 + 3u^2 - 4u + 3 \\ -u^9 + u^8 - 2u^7 + u^6 - 3u^5 + u^4 - 3u^3 + u^2 - 2u + 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -3u^9 + 5u^8 - 10u^7 + 8u^6 - 14u^5 + 10u^4 - 13u^3 + 4u^2 - 6u + 5 \\ -u^9 + 2u^8 - 4u^7 + 3u^6 - 5u^5 + 4u^4 - 5u^3 + u^2 - 2u + 2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 6u^9 - 9u^8 + 18u^7 - 14u^6 + 26u^5 - 16u^4 + 23u^3 - 7u^2 + 11u - 8 \\ 3u^9 - 4u^8 + 8u^7 - 6u^6 + 12u^5 - 6u^4 + 10u^3 - 3u^2 + 5u - 3 \end{pmatrix}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes = $-u^9 + 4u^8 - 5u^7 + 5u^6 - 2u^5 + u^4 + 3u^3 - 4u^2 + 5u - 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{10} - 4u^9 + 12u^8 - 24u^7 + 38u^6 - 41u^5 + 34u^4 - 19u^3 + 9u^2 - 2u + 1$
c_2	$u^{10} - 2u^9 + 4u^8 - 4u^7 + 6u^6 - 5u^5 + 6u^4 - 3u^3 + 3u^2 - 2u + 1$
c_3	$u^{10} + 2u^9 + 8u^8 + 4u^7 + 10u^5 + u^4 - 6u^3 + 16u^2 - 10u + 5$
c_4, c_{10}	$u^{10} + u^8 + 4u^7 - 11u^6 - 5u^5 + 18u^4 - 6u^3 - 2u + 1$
c_5, c_7	$u^{10} + u^9 - 4u^8 - 5u^7 - 3u^6 + u^5 + 15u^4 + 15u^3 + 11u^2 + 4u + 1$
c_6	$u^{10} + 2u^9 + 4u^8 + 4u^7 + 6u^6 + 5u^5 + 6u^4 + 3u^3 + 3u^2 + 2u + 1$
c_8	$u^{10} - 7u^9 + 19u^8 - 24u^7 + 9u^6 + 16u^5 - 27u^4 + 13u^3 + 6u^2 - 10u + 5$
c_9, c_{12}	$u^{10} - 3u^9 + u^8 + 4u^7 - 5u^6 + 6u^4 - u^3 - u^2 + 2u + 1$
c_{11}	$u^{10} + 7u^9 + 19u^8 + 24u^7 + 9u^6 - 16u^5 - 27u^4 - 13u^3 + 6u^2 + 10u + 5$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{10} + 8y^9 + \dots + 14y + 1$
c_2, c_6	$y^{10} + 4y^9 + 12y^8 + 24y^7 + 38y^6 + 41y^5 + 34y^4 + 19y^3 + 9y^2 + 2y + 1$
c_3	$y^{10} + 12y^9 + \dots + 60y + 25$
c_4, c_{10}	$y^{10} + 2y^9 + \dots - 4y + 1$
c_5, c_7	$y^{10} - 9y^9 + \dots + 6y + 1$
c_8, c_{11}	$y^{10} - 11y^9 + \dots - 40y + 25$
c_9, c_{12}	$y^{10} - 7y^9 + \dots - 6y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.378370 + 0.962478I$		
$a = 0.467882 + 0.091620I$	$-0.560424 - 0.074153I$	$-4.22332 - 0.05050I$
$b = 0.034500 + 0.828197I$		
$u = -0.378370 - 0.962478I$		
$a = 0.467882 - 0.091620I$	$-0.560424 + 0.074153I$	$-4.22332 + 0.05050I$
$b = 0.034500 - 0.828197I$		
$u = -0.549385 + 0.711068I$		
$a = -0.483620 - 0.417086I$	$0.35639 - 3.68459I$	$-1.74176 + 8.84832I$
$b = 0.789580 - 0.577598I$		
$u = -0.549385 - 0.711068I$		
$a = -0.483620 + 0.417086I$	$0.35639 + 3.68459I$	$-1.74176 - 8.84832I$
$b = 0.789580 + 0.577598I$		
$u = 0.485122 + 1.143680I$		
$a = 0.522993 - 0.643782I$	$-8.64742 + 3.94137I$	$-8.44290 - 2.10467I$
$b = 0.836616 - 0.985073I$		
$u = 0.485122 - 1.143680I$		
$a = 0.522993 + 0.643782I$	$-8.64742 - 3.94137I$	$-8.44290 + 2.10467I$
$b = 0.836616 + 0.985073I$		
$u = 0.946362 + 0.955964I$		
$a = -0.97616 - 1.25675I$	$10.15450 + 3.46808I$	$1.22554 - 2.41931I$
$b = -2.01415 - 0.37924I$		
$u = 0.946362 - 0.955964I$		
$a = -0.97616 + 1.25675I$	$10.15450 - 3.46808I$	$1.22554 + 2.41931I$
$b = -2.01415 + 0.37924I$		
$u = 0.496271 + 0.410325I$		
$a = -1.53110 + 1.96143I$	$-6.23787 + 0.27295I$	$-4.31756 + 1.10366I$
$b = -0.646542 + 0.815887I$		
$u = 0.496271 - 0.410325I$		
$a = -1.53110 - 1.96143I$	$-6.23787 - 0.27295I$	$-4.31756 - 1.10366I$
$b = -0.646542 - 0.815887I$		

$$\text{III. } I_3^u = \langle -u^5 + u^4 + u^2a - au - u^2 + b - u + 1, u^5a + 2u^5 + u^4 - u^3 + a^2 + 3au + u^2 + 4u + 4, u^6 - u^5 + u^4 + 2u^2 - u + 1 \rangle$$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u^4 + u^2 + 1 \\ u^4 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} a \\ u^5 - u^4 - u^2a + au + u^2 + u - 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} a \\ u^5 - u^4 + au + u^2 + u - 1 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^2 + 1 \\ -u^4 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u^4a + u^5 - u^3a - u^4 + u^2a + u^3 + a + u \\ u^4a + 2u^5 - u^3a - 2u^4 + u^3 + au + u^2 + 2u - 1 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -u^4a - u^5 + u^3a + u^4 - u^2a - u^3 - a - 2u \\ -u^4a - 2u^5 + u^3a + 2u^4 - u^2a - 2u^3 - a - 4u + 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -3u^5 + 3u^4 - u^2a - 2u^3 + au + u^2 - a - 7u + 3 \\ -u^4a - 4u^5 + u^3a + 4u^4 - 2u^2a - 3u^3 + au + u^2 - 2a - 8u + 3 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -2u^4a - 3u^5 + 2u^3a + 2u^4 - 2u^2a - 2u^3 - 3a - 5u \\ -2u^4a - 6u^5 + 2u^3a + 5u^4 - u^2a - 3u^3 - au - u^2 - 2a - 10u + 3 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $-4u^5 - 4u^2 - 8u - 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u^6 + u^5 + 5u^4 + 4u^3 + 6u^2 + 3u + 1)^2$
c_2, c_6	$(u^6 + u^5 + u^4 + 2u^2 + u + 1)^2$
c_3	$(u^6 - u^5 + 9u^4 + 20u^2 - u + 5)^2$
c_4, c_{10}	$u^{12} + u^{11} + \dots - 30u + 187$
c_5, c_7	$u^{12} + u^{11} + \dots - 12u + 1$
c_8, c_{11}	$(u^6 + 3u^5 - u^4 - 8u^3 - 2u^2 + 5u + 3)^2$
c_9, c_{12}	$u^{12} + 3u^{11} + \dots + 184u + 41$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$(y^6 + 9y^5 + 29y^4 + 40y^3 + 22y^2 + 3y + 1)^2$
c_2, c_6	$(y^6 + y^5 + 5y^4 + 4y^3 + 6y^2 + 3y + 1)^2$
c_3	$(y^6 + 17y^5 + 121y^4 + 368y^3 + 490y^2 + 199y + 25)^2$
c_4, c_{10}	$y^{12} + 11y^{11} + \dots + 67916y + 34969$
c_5, c_7	$y^{12} - 9y^{11} + \dots + 48y + 1$
c_8, c_{11}	$(y^6 - 11y^5 + 45y^4 - 84y^3 + 78y^2 - 37y + 9)^2$
c_9, c_{12}	$y^{12} - 9y^{11} + \dots + 92y + 1681$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.716019 + 0.809696I$ $a = 0.235532 - 0.660644I$ $b = 1.31075 - 1.14824I$	$-1.93691 - 2.65597I$	$-6.41885 + 3.39809I$
$u = -0.716019 + 0.809696I$ $a = 1.232850 - 0.459046I$ $b = 0.342200 + 0.700158I$	$-1.93691 - 2.65597I$	$-6.41885 + 3.39809I$
$u = -0.716019 - 0.809696I$ $a = 0.235532 + 0.660644I$ $b = 1.31075 + 1.14824I$	$-1.93691 + 2.65597I$	$-6.41885 - 3.39809I$
$u = -0.716019 - 0.809696I$ $a = 1.232850 + 0.459046I$ $b = 0.342200 - 0.700158I$	$-1.93691 + 2.65597I$	$-6.41885 - 3.39809I$
$u = 0.283231 + 0.633899I$ $a = -0.83956 + 1.55687I$ $b = -1.80934 + 1.85329I$	$-6.83783 + 1.10871I$	$-11.53615 - 6.18117I$
$u = 0.283231 + 0.633899I$ $a = -0.14932 - 3.37698I$ $b = -0.035938 - 0.941207I$	$-6.83783 + 1.10871I$	$-11.53615 - 6.18117I$
$u = 0.283231 - 0.633899I$ $a = -0.83956 - 1.55687I$ $b = -1.80934 - 1.85329I$	$-6.83783 - 1.10871I$	$-11.53615 + 6.18117I$
$u = 0.283231 - 0.633899I$ $a = -0.14932 + 3.37698I$ $b = -0.035938 + 0.941207I$	$-6.83783 - 1.10871I$	$-11.53615 + 6.18117I$
$u = 0.932789 + 0.951611I$ $a = -0.94860 - 1.12119I$ $b = -1.61310 - 0.56686I$	$8.77474 + 3.42721I$	$-6.04500 - 2.25224I$
$u = 0.932789 + 0.951611I$ $a = 0.96910 + 1.38183I$ $b = 2.30544 + 0.27711I$	$8.77474 + 3.42721I$	$-6.04500 - 2.25224I$

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.932789 - 0.951611I$	$8.77474 - 3.42721I$	$-6.04500 + 2.25224I$
$a = -0.94860 + 1.12119I$		
$b = -1.61310 + 0.56686I$		
$u = 0.932789 - 0.951611I$	$8.77474 - 3.42721I$	$-6.04500 + 2.25224I$
$a = 0.96910 - 1.38183I$		
$b = 2.30544 - 0.27711I$		

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^6 + u^5 + 5u^4 + 4u^3 + 6u^2 + 3u + 1)^2$ $\cdot (u^{10} - 4u^9 + 12u^8 - 24u^7 + 38u^6 - 41u^5 + 34u^4 - 19u^3 + 9u^2 - 2u + 1)$ $\cdot (u^{17} + 5u^{16} + \dots - 35u - 4)$
c_2	$(u^6 + u^5 + u^4 + 2u^2 + u + 1)^2$ $\cdot (u^{10} - 2u^9 + 4u^8 - 4u^7 + 6u^6 - 5u^5 + 6u^4 - 3u^3 + 3u^2 - 2u + 1)$ $\cdot (u^{17} - 5u^{16} + \dots - 3u + 2)$
c_3	$(u^6 - u^5 + 9u^4 + 20u^2 - u + 5)^2$ $\cdot (u^{10} + 2u^9 + 8u^8 + 4u^7 + 10u^5 + u^4 - 6u^3 + 16u^2 - 10u + 5)$ $\cdot (u^{17} + 5u^{16} + \dots + 201u + 74)$
c_4, c_{10}	$(u^{10} + u^8 + 4u^7 - 11u^6 - 5u^5 + 18u^4 - 6u^3 - 2u + 1)$ $\cdot (u^{12} + u^{11} + \dots - 30u + 187)(u^{17} + 13u^{15} + \dots + 4u + 1)$
c_5, c_7	$(u^{10} + u^9 - 4u^8 - 5u^7 - 3u^6 + u^5 + 15u^4 + 15u^3 + 11u^2 + 4u + 1)$ $\cdot (u^{12} + u^{11} + \dots - 12u + 1)(u^{17} - u^{16} + \dots + 2u + 1)$
c_6	$(u^6 + u^5 + u^4 + 2u^2 + u + 1)^2$ $\cdot (u^{10} + 2u^9 + 4u^8 + 4u^7 + 6u^6 + 5u^5 + 6u^4 + 3u^3 + 3u^2 + 2u + 1)$ $\cdot (u^{17} - 5u^{16} + \dots - 3u + 2)$
c_8	$(u^6 + 3u^5 - u^4 - 8u^3 - 2u^2 + 5u + 3)^2$ $\cdot (u^{10} - 7u^9 + 19u^8 - 24u^7 + 9u^6 + 16u^5 - 27u^4 + 13u^3 + 6u^2 - 10u + 5)$ $\cdot (u^{17} - 10u^{16} + \dots + 27u - 4)$
c_9, c_{12}	$(u^{10} - 3u^9 + u^8 + 4u^7 - 5u^6 + 6u^4 - u^3 - u^2 + 2u + 1)$ $\cdot (u^{12} + 3u^{11} + \dots + 184u + 41)(u^{17} + 3u^{16} + \dots - 8u + 1)$
c_{11}	$(u^6 + 3u^5 - u^4 - 8u^3 - 2u^2 + 5u + 3)^2$ $\cdot (u^{10} + 7u^9 + 19u^8 + 24u^7 + 9u^6 - 16u^5 - 27u^4 - 13u^3 + 6u^2 + 10u + 5)$ $\cdot (u^{17} - 10u^{16} + \dots + 27u - 4)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^6 + 9y^5 + \dots + 3y + 1)^2)(y^{10} + 8y^9 + \dots + 14y + 1)$ $\cdot (y^{17} + 17y^{16} + \dots + 49y - 16)$
c_2, c_6	$(y^6 + y^5 + 5y^4 + 4y^3 + 6y^2 + 3y + 1)^2$ $\cdot (y^{10} + 4y^9 + 12y^8 + 24y^7 + 38y^6 + 41y^5 + 34y^4 + 19y^3 + 9y^2 + 2y + 1)$ $\cdot (y^{17} + 5y^{16} + \dots - 35y - 4)$
c_3	$(y^6 + 17y^5 + 121y^4 + 368y^3 + 490y^2 + 199y + 25)^2$ $\cdot (y^{10} + 12y^9 + \dots + 60y + 25)(y^{17} + 29y^{16} + \dots - 126395y - 5476)$
c_4, c_{10}	$(y^{10} + 2y^9 + \dots - 4y + 1)(y^{12} + 11y^{11} + \dots + 67916y + 34969)$ $\cdot (y^{17} + 26y^{16} + \dots - 10y - 1)$
c_5, c_7	$(y^{10} - 9y^9 + \dots + 6y + 1)(y^{12} - 9y^{11} + \dots + 48y + 1)$ $\cdot (y^{17} - 25y^{16} + \dots + 4y - 1)$
c_8, c_{11}	$(y^6 - 11y^5 + 45y^4 - 84y^3 + 78y^2 - 37y + 9)^2$ $\cdot (y^{10} - 11y^9 + \dots - 40y + 25)(y^{17} + 2y^{16} + \dots - 143y - 16)$
c_9, c_{12}	$(y^{10} - 7y^9 + \dots - 6y + 1)(y^{12} - 9y^{11} + \dots + 92y + 1681)$ $\cdot (y^{17} - 15y^{16} + \dots + 16y - 1)$