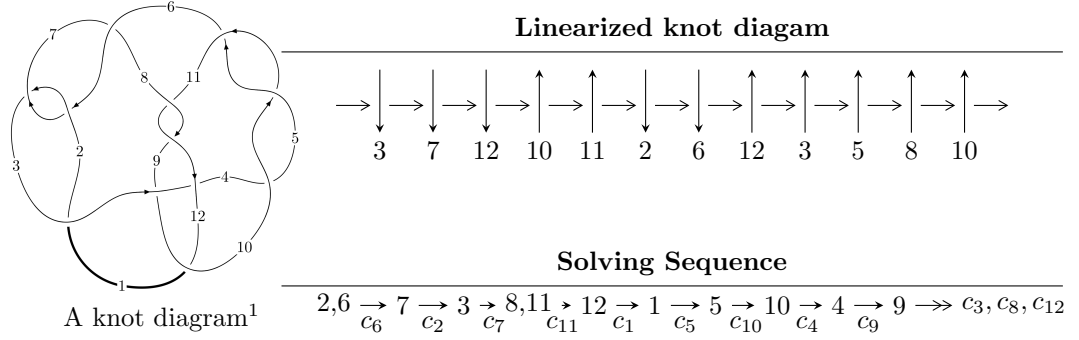


12n₀₅₆₉ (K12n₀₅₆₉)



Ideals for irreducible components² of X_{par}

$$I_1^u = \langle 8.11108 \times 10^{37} u^{57} + 4.91027 \times 10^{37} u^{56} + \dots + 5.66410 \times 10^{38} b - 1.34973 \times 10^{39}, \\ 1.29757 \times 10^{39} u^{57} + 3.25753 \times 10^{39} u^{56} + \dots + 5.66410 \times 10^{38} a - 5.91852 \times 10^{37}, u^{58} + 2u^{57} + \dots - 9u - 1 \rangle$$

$$I_2^u = \langle u^{15} + u^{14} - 3u^{13} - 4u^{12} + 7u^{11} + 10u^{10} - 10u^9 - 16u^8 + 11u^7 + 19u^6 - 8u^5 - 15u^4 + 4u^3 + 7u^2 + b - 2u - \\ - 2u^{16} - u^{15} + \dots + a + 1, u^{17} + u^{16} + \dots - 5u^2 + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 75 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.

$$I_1^u = \langle 8.11 \times 10^{37} u^{57} + 4.91 \times 10^{37} u^{56} + \dots + 5.66 \times 10^{38} b - 1.35 \times 10^{39}, 1.30 \times 10^{39} u^{57} + 3.26 \times 10^{39} u^{56} + \dots + 5.66 \times 10^{38} a - 5.92 \times 10^{37}, u^{58} + 2u^{57} + \dots - 9u - 1 \rangle$$

(i) Arc colorings

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

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

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

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

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

$$a_{11} = \begin{pmatrix} -2.29087u^{57} - 5.75119u^{56} + \dots - 44.7958u + 0.104492 \\ -0.143202u^{57} - 0.0866910u^{56} + \dots + 6.22932u + 2.38295 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -1.52712u^{57} - 4.39667u^{56} + \dots - 31.5613u + 3.08463 \\ -0.103380u^{57} + 0.538492u^{56} + \dots + 10.3860u + 2.75551 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} -1.60930u^{57} - 3.86858u^{56} + \dots - 1.74961u + 7.98100 \\ 1.09318u^{57} + 2.32144u^{56} + \dots + 8.84503u + 3.47131 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -1.14552u^{57} - 4.13737u^{56} + \dots - 72.7081u - 15.0427 \\ -0.129885u^{57} + 0.333506u^{56} + \dots - 3.41712u - 2.96099 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -2.16693u^{57} - 5.96581u^{56} + \dots - 57.6969u - 9.85977 \\ 0.892300u^{57} + 1.86393u^{56} + \dots + 9.09728u - 0.642831 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.697310u^{57} - 3.28572u^{56} + \dots - 62.1886u - 13.9750 \\ -0.544392u^{57} - 0.342782u^{56} + \dots - 13.8913u - 4.07349 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $-4.70530u^{57} - 10.9734u^{56} + \dots - 119.055u + 7.76720$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{58} + 20u^{57} + \dots + 111u + 1$
c_2, c_6	$u^{58} - 2u^{57} + \dots + 9u - 1$
c_3	$u^{58} - 2u^{57} + \dots - 4u + 1$
c_4, c_5, c_{10}	$u^{58} + u^{57} + \dots - 148u - 43$
c_8, c_{11}	$u^{58} - 4u^{57} + \dots + 12848u - 2119$
c_9	$u^{58} - u^{57} + \dots + 2150u + 293$
c_{12}	$u^{58} + 2u^{57} + \dots + 44u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{58} + 44y^{57} + \dots - 6891y + 1$
c_2, c_6	$y^{58} - 20y^{57} + \dots - 111y + 1$
c_3	$y^{58} - 56y^{57} + \dots + 254y + 1$
c_4, c_5, c_{10}	$y^{58} - 57y^{57} + \dots + 10690y + 1849$
c_8, c_{11}	$y^{58} - 34y^{57} + \dots - 42707330y + 4490161$
c_9	$y^{58} + 55y^{57} + \dots - 1142832y + 85849$
c_{12}	$y^{58} + 50y^{57} + \dots + 2238y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.649208 + 0.777185I$ $a = -1.311830 - 0.015356I$ $b = 1.41367 - 0.24080I$	$8.99829 - 0.85807I$	$7.14206 + 0.I$
$u = -0.649208 - 0.777185I$ $a = -1.311830 + 0.015356I$ $b = 1.41367 + 0.24080I$	$8.99829 + 0.85807I$	$7.14206 + 0.I$
$u = -0.192605 + 0.952386I$ $a = 1.59370 + 0.08023I$ $b = -1.374660 - 0.179161I$	$1.95932 + 3.47319I$	$7.38337 - 3.16681I$
$u = -0.192605 - 0.952386I$ $a = 1.59370 - 0.08023I$ $b = -1.374660 + 0.179161I$	$1.95932 - 3.47319I$	$7.38337 + 3.16681I$
$u = 0.704542 + 0.759694I$ $a = -2.20492 - 0.44914I$ $b = 1.66369 + 0.08603I$	$9.70913 + 0.22811I$	$5.29825 + 0.I$
$u = 0.704542 - 0.759694I$ $a = -2.20492 + 0.44914I$ $b = 1.66369 - 0.08603I$	$9.70913 - 0.22811I$	$5.29825 + 0.I$
$u = -0.844133 + 0.459005I$ $a = -0.88197 + 1.28310I$ $b = 0.794410 + 0.348082I$	$0.18156 + 3.43068I$	$3.97292 - 8.38855I$
$u = -0.844133 - 0.459005I$ $a = -0.88197 - 1.28310I$ $b = 0.794410 - 0.348082I$	$0.18156 - 3.43068I$	$3.97292 + 8.38855I$
$u = -0.785206 + 0.690856I$ $a = -1.51273 + 0.86981I$ $b = 0.940956 + 0.796608I$	$0.04805 + 2.72947I$	$6.00584 - 3.68019I$
$u = -0.785206 - 0.690856I$ $a = -1.51273 - 0.86981I$ $b = 0.940956 - 0.796608I$	$0.04805 - 2.72947I$	$6.00584 + 3.68019I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.675145 + 0.804414I$ $a = 0.143408 - 0.529642I$ $b = 0.449289 + 0.991573I$	$-1.36150 + 3.46891I$	$4.09542 - 2.58287I$
$u = 0.675145 - 0.804414I$ $a = 0.143408 + 0.529642I$ $b = 0.449289 - 0.991573I$	$-1.36150 - 3.46891I$	$4.09542 + 2.58287I$
$u = -1.06579$ $a = -0.471638$ $b = -1.49871$	4.21383	-2.91260
$u = -0.797269 + 0.746574I$ $a = -2.49041 + 1.51484I$ $b = 1.313240 - 0.095807I$	$0.640941 - 0.368761I$	0
$u = -0.797269 - 0.746574I$ $a = -2.49041 - 1.51484I$ $b = 1.313240 + 0.095807I$	$0.640941 + 0.368761I$	0
$u = -1.093130 + 0.112916I$ $a = -0.372147 - 0.718737I$ $b = -0.097432 - 0.849324I$	$-7.71465 + 3.17136I$	$0. - 3.24101I$
$u = -1.093130 - 0.112916I$ $a = -0.372147 + 0.718737I$ $b = -0.097432 + 0.849324I$	$-7.71465 - 3.17136I$	$0. + 3.24101I$
$u = 0.897438 + 0.025837I$ $a = 0.83649 + 1.36225I$ $b = -1.246550 + 0.521890I$	$-4.22900 - 1.73682I$	$-1.19489 + 1.04559I$
$u = 0.897438 - 0.025837I$ $a = 0.83649 - 1.36225I$ $b = -1.246550 - 0.521890I$	$-4.22900 + 1.73682I$	$-1.19489 - 1.04559I$
$u = 0.865118 + 0.692108I$ $a = -0.329927 - 0.483809I$ $b = -0.099466 - 0.733477I$	$3.97645 - 2.66265I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.865118 - 0.692108I$ $a = -0.329927 + 0.483809I$ $b = -0.099466 + 0.733477I$	$3.97645 + 2.66265I$	0
$u = 1.12004$ $a = -0.852945$ $b = -1.22513$	3.22886	2.00000
$u = -0.927826 + 0.684508I$ $a = 0.367169 - 0.609308I$ $b = -1.072260 + 0.836652I$	$-0.38663 + 2.57641I$	0
$u = -0.927826 - 0.684508I$ $a = 0.367169 + 0.609308I$ $b = -1.072260 - 0.836652I$	$-0.38663 - 2.57641I$	0
$u = -0.671464 + 0.950623I$ $a = 1.75527 - 0.30187I$ $b = -1.53135 + 0.36764I$	$5.01980 - 8.36674I$	0
$u = -0.671464 - 0.950623I$ $a = 1.75527 + 0.30187I$ $b = -1.53135 - 0.36764I$	$5.01980 + 8.36674I$	0
$u = 0.813233 + 0.191671I$ $a = 0.451115 + 0.585998I$ $b = 0.221008 + 0.395351I$	$-1.37591 - 0.60280I$	$-3.98558 + 1.14738I$
$u = 0.813233 - 0.191671I$ $a = 0.451115 - 0.585998I$ $b = 0.221008 - 0.395351I$	$-1.37591 + 0.60280I$	$-3.98558 - 1.14738I$
$u = -0.938275 + 0.718133I$ $a = 2.51455 - 0.78526I$ $b = -1.40735 - 0.18115I$	$0.20384 + 5.94515I$	0
$u = -0.938275 - 0.718133I$ $a = 2.51455 + 0.78526I$ $b = -1.40735 + 0.18115I$	$0.20384 - 5.94515I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.400647 + 0.687623I$ $a = 0.654871 + 0.604463I$ $b = 0.179950 - 0.417028I$	$-3.03619 - 1.14742I$	$1.89413 + 2.71155I$
$u = 0.400647 - 0.687623I$ $a = 0.654871 - 0.604463I$ $b = 0.179950 + 0.417028I$	$-3.03619 + 1.14742I$	$1.89413 - 2.71155I$
$u = 1.068030 + 0.569719I$ $a = -1.042390 + 0.124560I$ $b = 0.140212 - 0.417001I$	$-4.94353 - 3.70127I$	0
$u = 1.068030 - 0.569719I$ $a = -1.042390 - 0.124560I$ $b = 0.140212 + 0.417001I$	$-4.94353 + 3.70127I$	0
$u = -0.899742 + 0.819342I$ $a = 0.385454 - 0.035512I$ $b = 0.037648 - 0.622247I$	$4.54646 + 3.06184I$	0
$u = -0.899742 - 0.819342I$ $a = 0.385454 + 0.035512I$ $b = 0.037648 + 0.622247I$	$4.54646 - 3.06184I$	0
$u = 0.998592 + 0.706419I$ $a = 1.64774 + 1.70115I$ $b = -1.63453 + 0.16359I$	$8.81746 - 5.81212I$	0
$u = 0.998592 - 0.706419I$ $a = 1.64774 - 1.70115I$ $b = -1.63453 - 0.16359I$	$8.81746 + 5.81212I$	0
$u = -1.029770 + 0.700716I$ $a = 1.01570 - 1.60259I$ $b = -1.311010 - 0.312734I$	$7.85730 + 6.47303I$	0
$u = -1.029770 - 0.700716I$ $a = 1.01570 + 1.60259I$ $b = -1.311010 + 0.312734I$	$7.85730 - 6.47303I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.018850 + 0.717395I$ $a = 1.035050 + 0.243093I$ $b = -0.380419 + 1.097530I$	$-2.39802 - 9.20313I$	0
$u = 1.018850 - 0.717395I$ $a = 1.035050 - 0.243093I$ $b = -0.380419 - 1.097530I$	$-2.39802 + 9.20313I$	0
$u = 0.853820 + 0.915715I$ $a = 1.68680 + 0.32381I$ $b = -1.367730 - 0.197646I$	$9.17939 - 0.17615I$	0
$u = 0.853820 - 0.915715I$ $a = 1.68680 - 0.32381I$ $b = -1.367730 + 0.197646I$	$9.17939 + 0.17615I$	0
$u = 1.245010 + 0.220439I$ $a = -0.109370 - 0.713094I$ $b = 1.355710 - 0.323925I$	$-3.11278 - 7.32391I$	0
$u = 1.245010 - 0.220439I$ $a = -0.109370 + 0.713094I$ $b = 1.355710 + 0.323925I$	$-3.11278 + 7.32391I$	0
$u = 0.979010 + 0.852448I$ $a = -1.77380 - 1.22586I$ $b = 1.340370 - 0.264461I$	$8.77545 - 6.33818I$	0
$u = 0.979010 - 0.852448I$ $a = -1.77380 + 1.22586I$ $b = 1.340370 + 0.264461I$	$8.77545 + 6.33818I$	0
$u = -1.212290 + 0.502784I$ $a = -0.308235 + 0.936072I$ $b = 1.265380 - 0.139334I$	$-1.33691 + 1.73049I$	0
$u = -1.212290 - 0.502784I$ $a = -0.308235 - 0.936072I$ $b = 1.265380 + 0.139334I$	$-1.33691 - 1.73049I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.606543 + 0.302471I$ $a = 1.286880 - 0.357784I$ $b = -0.620734 - 0.064910I$	$0.958498 + 0.031162I$	$9.31326 - 1.44144I$
$u = -0.606543 - 0.302471I$ $a = 1.286880 + 0.357784I$ $b = -0.620734 + 0.064910I$	$0.958498 - 0.031162I$	$9.31326 + 1.44144I$
$u = -1.079880 + 0.772455I$ $a = -1.65559 + 1.44153I$ $b = 1.53699 + 0.42805I$	$3.7392 + 14.6910I$	0
$u = -1.079880 - 0.772455I$ $a = -1.65559 - 1.44153I$ $b = 1.53699 - 0.42805I$	$3.7392 - 14.6910I$	0
$u = 0.453560 + 0.034976I$ $a = 3.14159 + 1.95342I$ $b = 0.810649 - 0.339207I$	$-2.55565 - 1.59256I$	$-2.14433 + 3.75237I$
$u = 0.453560 - 0.034976I$ $a = 3.14159 - 1.95342I$ $b = 0.810649 + 0.339207I$	$-2.55565 + 1.59256I$	$-2.14433 - 3.75237I$
$u = -0.435557$ $a = 1.52560$ $b = -0.476437$	0.883998	12.6720
$u = -0.109994$ $a = 3.75403$ $b = 1.56091$	7.69349	17.3580

$$I_2^u = \langle u^{15} + u^{14} + \dots + b - 2, -2u^{16} - u^{15} + \dots + a + 1, u^{17} + u^{16} + \dots - 5u^2 + 1 \rangle \quad \text{II.}$$

(i) Arc colorings

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

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

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

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

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

$$a_{11} = \begin{pmatrix} 2u^{16} + u^{15} + \dots - 2u - 1 \\ -u^{15} - u^{14} + \dots + 2u + 2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} u^{16} - 3u^{14} + \dots + u - 1 \\ -u^{15} - u^{14} + \dots + 3u + 2 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} -u^{16} + 4u^{14} + \dots - 3u - 1 \\ -u^{16} - u^{15} + \dots + 4u + 1 \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} -u^{16} + 3u^{14} + \dots - 3u + 2 \\ u^{15} + u^{14} + \dots - 2u - 2 \end{pmatrix}$$

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

(ii) Obstruction class = 1

$$\text{(iii) Cusp Shapes} = -2u^{16} + 4u^{15} + 8u^{14} - 9u^{13} - 25u^{12} + 22u^{11} + 46u^{10} - 26u^9 - 69u^8 + 31u^7 + 73u^6 - 19u^5 - 62u^4 + 15u^3 + 32u^2 - 5u - 10$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{17} - 7u^{16} + \dots + 10u - 1$
c_2	$u^{17} - u^{16} + \dots + 5u^2 - 1$
c_3	$u^{17} + 3u^{16} + \dots + 5u - 1$
c_4, c_5	$u^{17} - 10u^{15} + \dots - 5u - 1$
c_6	$u^{17} + u^{16} + \dots - 5u^2 + 1$
c_7	$u^{17} + 7u^{16} + \dots + 10u + 1$
c_8	$u^{17} - 3u^{16} + \dots + u + 1$
c_9	$u^{17} + 4u^{15} + \dots - 5u - 1$
c_{10}	$u^{17} - 10u^{15} + \dots - 5u + 1$
c_{11}	$u^{17} + 3u^{16} + \dots + u - 1$
c_{12}	$u^{17} - u^{16} + \dots - 3u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{17} + 13y^{16} + \dots + 6y - 1$
c_2, c_6	$y^{17} - 7y^{16} + \dots + 10y - 1$
c_3	$y^{17} - 11y^{16} + \dots + 85y - 1$
c_4, c_5, c_{10}	$y^{17} - 20y^{16} + \dots + 21y - 1$
c_8, c_{11}	$y^{17} - 9y^{16} + \dots - 7y - 1$
c_9	$y^{17} + 8y^{16} + \dots + 7y - 1$
c_{12}	$y^{17} + 7y^{16} + \dots + 9y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.06231$ $a = -0.790966$ $b = -1.44148$	4.98345	8.53260
$u = -1.041520 + 0.456686I$ $a = -0.162038 + 0.210070I$ $b = 0.925549 + 0.313937I$	$-3.48692 + 4.50075I$	$2.82410 - 4.82928I$
$u = -1.041520 - 0.456686I$ $a = -0.162038 - 0.210070I$ $b = 0.925549 - 0.313937I$	$-3.48692 - 4.50075I$	$2.82410 + 4.82928I$
$u = -0.781537 + 0.841435I$ $a = -1.83272 + 0.28651I$ $b = 1.54958 - 0.17210I$	$11.09800 + 0.42854I$	$10.90013 - 2.04793I$
$u = -0.781537 - 0.841435I$ $a = -1.83272 - 0.28651I$ $b = 1.54958 + 0.17210I$	$11.09800 - 0.42854I$	$10.90013 + 2.04793I$
$u = 0.625681 + 0.562777I$ $a = 2.71785 + 1.10655I$ $b = -1.041450 + 0.419962I$	$-1.55933 - 2.45596I$	$2.34776 + 4.55656I$
$u = 0.625681 - 0.562777I$ $a = 2.71785 - 1.10655I$ $b = -1.041450 - 0.419962I$	$-1.55933 + 2.45596I$	$2.34776 - 4.55656I$
$u = 1.054550 + 0.525536I$ $a = -0.812965 - 1.099150I$ $b = 1.056020 + 0.333361I$	$-3.00027 - 1.96632I$	$0.48389 + 2.00939I$
$u = 1.054550 - 0.525536I$ $a = -0.812965 + 1.099150I$ $b = 1.056020 - 0.333361I$	$-3.00027 + 1.96632I$	$0.48389 - 2.00939I$
$u = -0.817244$ $a = 1.31700$ $b = -0.218613$	0.403753	-6.40080

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.894942 + 0.792445I$ $a = -0.222477 - 0.373187I$ $b = -0.060430 - 0.491411I$	$5.24194 - 2.98033I$	$10.80588 + 2.40227I$
$u = 0.894942 - 0.792445I$ $a = -0.222477 + 0.373187I$ $b = -0.060430 + 0.491411I$	$5.24194 + 2.98033I$	$10.80588 - 2.40227I$
$u = -0.628631 + 0.430544I$ $a = -1.289760 - 0.576771I$ $b = -0.903071 + 0.410573I$	$-2.04052 - 0.75125I$	$3.45772 - 1.80188I$
$u = -0.628631 - 0.430544I$ $a = -1.289760 + 0.576771I$ $b = -0.903071 - 0.410573I$	$-2.04052 + 0.75125I$	$3.45772 + 1.80188I$
$u = -1.002690 + 0.779560I$ $a = 1.57786 - 1.54150I$ $b = -1.49772 - 0.20521I$	$10.41440 + 5.64550I$	$10.01176 - 3.44000I$
$u = -1.002690 - 0.779560I$ $a = 1.57786 + 1.54150I$ $b = -1.49772 + 0.20521I$	$10.41440 - 5.64550I$	$10.01176 + 3.44000I$
$u = 0.513320$ $a = -1.47754$ $b = 1.60313$	7.33620	-5.79430

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{17} - 7u^{16} + \dots + 10u - 1)(u^{58} + 20u^{57} + \dots + 111u + 1)$
c_2	$(u^{17} - u^{16} + \dots + 5u^2 - 1)(u^{58} - 2u^{57} + \dots + 9u - 1)$
c_3	$(u^{17} + 3u^{16} + \dots + 5u - 1)(u^{58} - 2u^{57} + \dots - 4u + 1)$
c_4, c_5	$(u^{17} - 10u^{15} + \dots - 5u - 1)(u^{58} + u^{57} + \dots - 148u - 43)$
c_6	$(u^{17} + u^{16} + \dots - 5u^2 + 1)(u^{58} - 2u^{57} + \dots + 9u - 1)$
c_7	$(u^{17} + 7u^{16} + \dots + 10u + 1)(u^{58} + 20u^{57} + \dots + 111u + 1)$
c_8	$(u^{17} - 3u^{16} + \dots + u + 1)(u^{58} - 4u^{57} + \dots + 12848u - 2119)$
c_9	$(u^{17} + 4u^{15} + \dots - 5u - 1)(u^{58} - u^{57} + \dots + 2150u + 293)$
c_{10}	$(u^{17} - 10u^{15} + \dots - 5u + 1)(u^{58} + u^{57} + \dots - 148u - 43)$
c_{11}	$(u^{17} + 3u^{16} + \dots + u - 1)(u^{58} - 4u^{57} + \dots + 12848u - 2119)$
c_{12}	$(u^{17} - u^{16} + \dots - 3u - 1)(u^{58} + 2u^{57} + \dots + 44u + 1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7	$(y^{17} + 13y^{16} + \dots + 6y - 1)(y^{58} + 44y^{57} + \dots - 6891y + 1)$
c_2, c_6	$(y^{17} - 7y^{16} + \dots + 10y - 1)(y^{58} - 20y^{57} + \dots - 111y + 1)$
c_3	$(y^{17} - 11y^{16} + \dots + 85y - 1)(y^{58} - 56y^{57} + \dots + 254y + 1)$
c_4, c_5, c_{10}	$(y^{17} - 20y^{16} + \dots + 21y - 1)(y^{58} - 57y^{57} + \dots + 10690y + 1849)$
c_8, c_{11}	$(y^{17} - 9y^{16} + \dots - 7y - 1)$ $\cdot (y^{58} - 34y^{57} + \dots - 42707330y + 4490161)$
c_9	$(y^{17} + 8y^{16} + \dots + 7y - 1)(y^{58} + 55y^{57} + \dots - 1142832y + 85849)$
c_{12}	$(y^{17} + 7y^{16} + \dots + 9y - 1)(y^{58} + 50y^{57} + \dots + 2238y + 1)$