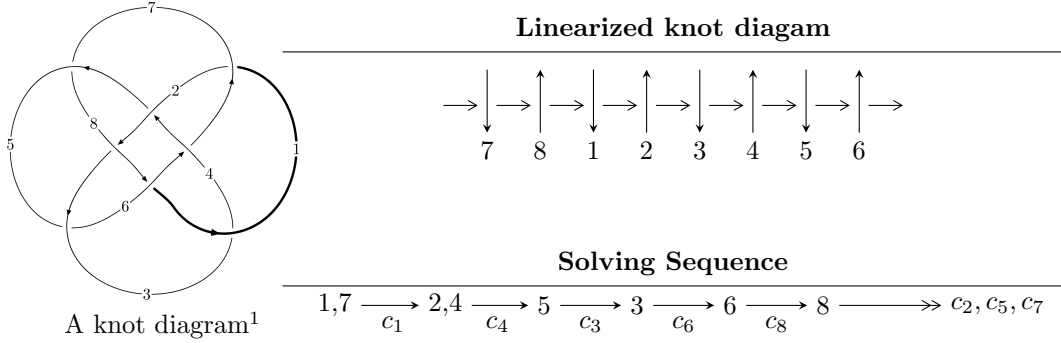


8₁₈ (K8a₁₂)



A knot diagram¹

Ideals for irreducible components² of X_{par}

$$\begin{aligned}
 I_1^u &= \langle b + u, -u^3 + u^2 + a - 2, u^4 - 2u^3 + u^2 + 2u - 1 \rangle \\
 I_2^u &= \langle -u^3 + 2u^2 + b - 3u + 1, 4u^3 - 9u^2 + 3a + 15u - 9, u^4 - 3u^3 + 6u^2 - 6u + 3 \rangle \\
 I_3^u &= \langle b + a + u + 1, a^2 + au + 1, u^2 + u + 1 \rangle \\
 I_4^u &= \langle b + u, 2u^3 + 4u^2 + a + 3u - 2, u^4 + u^3 - 2u + 1 \rangle \\
 I_5^u &= \langle -u^3 - 2u^2 + b - 2u + 1, 2u^3 + 3u^2 + a + 2u - 3, u^4 + u^3 - 2u + 1 \rangle \\
 I_6^u &= \langle b + u, a - u, u^2 + u + 1 \rangle \\
 I_7^u &= \langle b, a - 1, u - 1 \rangle \\
 I_8^u &= \langle b - 1, a, u + 1 \rangle \\
 I_9^u &= \langle b - 1, a - 1, u + 1 \rangle \\
 \\
 I_1^v &= \langle a, b + 1, v - 1 \rangle
 \end{aligned}$$

* 10 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 26 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.

$$\text{I. } I_1^u = \langle b + u, -u^3 + u^2 + a - 2, u^4 - 2u^3 + u^2 + 2u - 1 \rangle$$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u^3 - u^2 + 2 \\ -u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ -u^3 + 2u^2 - 1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^3 - u^2 - u + 2 \\ -u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^3 + 2u^2 - 2 \\ u^3 - u^2 + 1 \end{pmatrix}$$

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

(ii) Obstruction class = -1

(iii) Cusp Shapes = $4u^3 - 4u^2 + 4u + 4$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_5 c_7	$u^4 - 2u^3 + u^2 + 2u - 1$
c_2, c_4, c_6 c_8	$u^4 + 2u^3 + u^2 - 2u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3	
c_4, c_5, c_6	$y^4 - 2y^3 + 7y^2 - 6y + 1$
c_7, c_8	

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.883204$ $a = 0.531010$ $b = 0.883204$	-1.71901	-5.40880
$u = 0.468990$ $a = 1.88320$ $b = -0.468990$	1.71901	5.40880
$u = 1.20711 + 0.97832I$ $a = -0.207107 + 0.978318I$ $b = -1.20711 - 0.97832I$	-12.3509I	0. + 7.82655I
$u = 1.20711 - 0.97832I$ $a = -0.207107 - 0.978318I$ $b = -1.20711 + 0.97832I$	12.3509I	0. - 7.82655I

II.

$$I_2^u = \langle -u^3 + 2u^2 + b - 3u + 1, 4u^3 - 9u^2 + 3a + 15u - 9, u^4 - 3u^3 + 6u^2 - 6u + 3 \rangle$$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -\frac{4}{3}u^3 + 3u^2 - 5u + 3 \\ u^3 - 2u^2 + 3u - 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -\frac{1}{3}u^3 - 1 \\ -1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -\frac{1}{3}u^3 + u^2 - 2u + 2 \\ u^3 - 2u^2 + 3u - 1 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} \frac{4}{3}u^3 - 2u^2 + 4u - 1 \\ -u^2 + 2u - 2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -\frac{2}{3}u^3 + u^2 - 2u + 1 \\ -u^3 + 2u^2 - 2u + 1 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $8u^3 - 16u^2 + 24u - 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^4 - 3u^3 + 6u^2 - 6u + 3$
c_2, c_4, c_6 c_8	$u^4 - u^3 + 2u + 1$
c_3, c_7	$(u^2 + u + 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^4 + 3y^3 + 6y^2 + 9$
c_2, c_4, c_6 c_8	$y^4 - y^3 + 6y^2 - 4y + 1$
c_3, c_7	$(y^2 + y + 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.851597 + 0.632502I$		
$a = 0.25679 - 1.42811I$	$1.64493 - 4.05977I$	$6.00000 + 6.92820I$
$b = 0.500000 + 0.866025I$		
$u = 0.851597 - 0.632502I$		
$a = 0.25679 + 1.42811I$	$1.64493 + 4.05977I$	$6.00000 - 6.92820I$
$b = 0.500000 - 0.866025I$		
$u = 0.64840 + 1.49853I$		
$a = -0.256789 + 0.303939I$	$1.64493 + 4.05977I$	$6.00000 - 6.92820I$
$b = 0.500000 - 0.866025I$		
$u = 0.64840 - 1.49853I$		
$a = -0.256789 - 0.303939I$	$1.64493 - 4.05977I$	$6.00000 + 6.92820I$
$b = 0.500000 + 0.866025I$		

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

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} a \\ -a - u - 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} au + a - u - 1 \\ -1 \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} -au - a + u \\ au \end{pmatrix}$$

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

(ii) Obstruction class = -1

(iii) Cusp Shapes = $-8u + 2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$(u^2 + u + 1)^2$
c_2, c_4, c_6 c_8	$u^4 - u^3 + 2u + 1$
c_3, c_7	$u^4 - 3u^3 + 6u^2 - 6u + 3$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$(y^2 + y + 1)^2$
c_2, c_4, c_6 c_8	$y^4 - y^3 + 6y^2 - 4y + 1$
c_3, c_7	$y^4 + 3y^3 + 6y^2 + 9$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.500000 + 0.866025I$ $a = 0.148403 + 0.632502I$ $b = -0.64840 - 1.49853I$	$1.64493 + 4.05977I$	$6.00000 - 6.92820I$
$u = -0.500000 + 0.866025I$ $a = 0.35160 - 1.49853I$ $b = -0.851597 + 0.632502I$	$1.64493 + 4.05977I$	$6.00000 - 6.92820I$
$u = -0.500000 - 0.866025I$ $a = 0.148403 - 0.632502I$ $b = -0.64840 + 1.49853I$	$1.64493 - 4.05977I$	$6.00000 + 6.92820I$
$u = -0.500000 - 0.866025I$ $a = 0.35160 + 1.49853I$ $b = -0.851597 - 0.632502I$	$1.64493 - 4.05977I$	$6.00000 + 6.92820I$

$$\text{IV. } I_4^u = \langle b + u, 2u^3 + 4u^2 + a + 3u - 2, u^4 + u^3 - 2u + 1 \rangle$$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -2u^3 - 4u^2 - 3u + 2 \\ -u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^3 - 2u^2 - 2u \\ -1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -2u^3 - 4u^2 - 4u + 2 \\ -u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -5u^3 - 8u^2 - 4u + 8 \\ -u^3 - 2u^2 - u + 2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -4u^3 - 7u^2 - 5u + 5 \\ -u^3 - 2u^2 - u + 1 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $8u^3 + 16u^2 + 8u - 18$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_5 c_7	$u^4 + u^3 - 2u + 1$
c_2, c_6	$u^4 + 3u^3 + 6u^2 + 6u + 3$
c_4, c_8	$(u^2 - u + 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_5 c_7	$y^4 - y^3 + 6y^2 - 4y + 1$
c_2, c_6	$y^4 + 3y^3 + 6y^2 + 9$
c_4, c_8	$(y^2 + y + 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.621964 + 0.187730I$		
$a = -1.62196 - 1.91978I$	$-1.64493 - 4.05977I$	$-6.00000 + 6.92820I$
$b = -0.621964 - 0.187730I$		
$u = 0.621964 - 0.187730I$		
$a = -1.62196 + 1.91978I$	$-1.64493 + 4.05977I$	$-6.00000 - 6.92820I$
$b = -0.621964 + 0.187730I$		
$u = -1.12196 + 1.05376I$		
$a = 0.121964 + 0.678295I$	$-1.64493 + 4.05977I$	$-6.00000 - 6.92820I$
$b = 1.12196 - 1.05376I$		
$u = -1.12196 - 1.05376I$		
$a = 0.121964 - 0.678295I$	$-1.64493 - 4.05977I$	$-6.00000 + 6.92820I$
$b = 1.12196 + 1.05376I$		

$$\mathbf{V. } I_5^u = \langle -u^3 - 2u^2 + b - 2u + 1, 2u^3 + 3u^2 + a + 2u - 3, u^4 + u^3 - 2u + 1 \rangle$$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -2u^3 - 3u^2 - 2u + 3 \\ u^3 + 2u^2 + 2u - 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ 2u^3 + 4u^2 + 2u - 2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^3 - u^2 + 2 \\ u^3 + 2u^2 + 2u - 1 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u^3 + 2u^2 + 2u - 1 \\ u^3 + u^2 + u - 2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u \\ -2u^3 - 2u^2 - u + 2 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $8u^3 + 16u^2 + 8u - 18$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_5 c_7	$u^4 + u^3 - 2u + 1$
c_2, c_6	$(u^2 - u + 1)^2$
c_4, c_8	$u^4 + 3u^3 + 6u^2 + 6u + 3$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_5 c_7	$y^4 - y^3 + 6y^2 - 4y + 1$
c_2, c_6	$(y^2 + y + 1)^2$
c_4, c_8	$y^4 + 3y^3 + 6y^2 + 9$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_5^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.621964 + 0.187730I$		
$a = 0.35160 - 1.49853I$	$-1.64493 - 4.05977I$	$-6.00000 + 6.92820I$
$b = 1.12196 + 1.05376I$		
$u = 0.621964 - 0.187730I$		
$a = 0.35160 + 1.49853I$	$-1.64493 + 4.05977I$	$-6.00000 - 6.92820I$
$b = 1.12196 - 1.05376I$		
$u = -1.12196 + 1.05376I$		
$a = 0.148403 - 0.632502I$	$-1.64493 + 4.05977I$	$-6.00000 - 6.92820I$
$b = -0.621964 + 0.187730I$		
$u = -1.12196 - 1.05376I$		
$a = 0.148403 + 0.632502I$	$-1.64493 - 4.05977I$	$-6.00000 + 6.92820I$
$b = -0.621964 - 0.187730I$		

$$\text{VI. } I_6^u = \langle b + u, a - u, u^2 + u + 1 \rangle$$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} u \\ -u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0 \\ -u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -1 \\ u + 1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u \\ u \end{pmatrix}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes = $-8u - 4$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_5 c_7	$u^2 + u + 1$
c_2, c_4, c_6 c_8	$u^2 - u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3	$y^2 + y + 1$
c_4, c_5, c_6	
c_7, c_8	

(vi) Complex Volumes and Cusp Shapes

Solutions to I_6^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.500000 + 0.866025I$	$4.05977I$	$0. - 6.92820I$
$a = -0.500000 + 0.866025I$		
$b = 0.500000 - 0.866025I$		
$u = -0.500000 - 0.866025I$	$- 4.05977I$	$0. + 6.92820I$
$a = -0.500000 - 0.866025I$		
$b = 0.500000 + 0.866025I$		

VII. $I_7^u = \langle b, a - 1, u - 1 \rangle$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$

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

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

$$a_5 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$

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

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

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

(ii) Obstruction class = -1

(iii) Cusp Shapes = 6

(iv) **u-Polynomials at the component**

Crossings	u-Polynomials at each crossing
c_1, c_2, c_4 c_5, c_6, c_8	$u - 1$
c_3, c_7	u

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4 c_5, c_6, c_8	$y - 1$
c_3, c_7	y

(vi) Complex Volumes and Cusp Shapes

Solutions to I_7^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.00000$		
$a = 1.00000$	1.64493	6.00000
$b = 0$		

VIII. $I_8^u = \langle b - 1, a, u + 1 \rangle$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$

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

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

$$a_5 = \begin{pmatrix} 1 \\ 2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

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

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

(ii) Obstruction class = -1

(iii) Cusp Shapes = -6

(iv) **u-Polynomials at the component**

Crossings	u-Polynomials at each crossing
c_1, c_3, c_4 c_5, c_7, c_8	$u + 1$
c_2, c_6	u

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_4 c_5, c_7, c_8	$y - 1$
c_2, c_6	y

(vi) Complex Volumes and Cusp Shapes

Solutions to $I_{\mathfrak{g}}^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.00000$		
$a = 0$	-1.64493	-6.00000
$b = 1.00000$		

$$\text{IX. } I_9^u = \langle b - 1, a - 1, u + 1 \rangle$$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 2 \\ 1 \end{pmatrix}$$

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

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

(ii) Obstruction class = -1

(iii) Cusp Shapes = -6

(iv) **u-Polynomials at the component**

Crossings	u-Polynomials at each crossing
c_1, c_2, c_3 c_5, c_6, c_7	$u + 1$
c_4, c_8	u

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_5, c_6, c_7	$y - 1$
c_4, c_8	y

(vi) Complex Volumes and Cusp Shapes

Solutions to I_9^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.00000$		
$a = 1.00000$	-1.64493	-6.00000
$b = 1.00000$		

$$\mathbf{X. } I_1^v = \langle a, b + 1, v - 1 \rangle$$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

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

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

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

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

$$a_8 = \begin{pmatrix} 2 \\ 1 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = 6

(iv) **u-Polynomials at the component**

Crossings	u-Polynomials at each crossing
c_1, c_5	u
c_2, c_3, c_4 c_6, c_7, c_8	$u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	y
c_2, c_3, c_4 c_6, c_7, c_8	$y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$v = 1.00000$		
$a = 0$	1.64493	6.00000
$b = -1.00000$		

XI. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_3, c_5 c_7	$u(u-1)(u+1)^2(u^2+u+1)^3(u^4-3u^3+6u^2-6u+3)$ $\cdot (u^4-2u^3+u^2+2u-1)(u^4+u^3-2u+1)^2$
c_2, c_4, c_6 c_8	$u(u-1)^2(u+1)(u^2-u+1)^3(u^4-u^3+2u+1)^2$ $\cdot (u^4+2u^3+u^2-2u-1)(u^4+3u^3+6u^2+6u+3)$

XII. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_7, c_8	$y(y-1)^3(y^2+y+1)^3(y^4-2y^3+7y^2-6y+1)$ $\cdot (y^4-y^3+6y^2-4y+1)^2(y^4+3y^3+6y^2+9)$