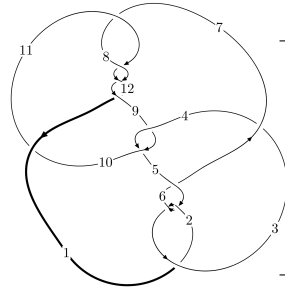
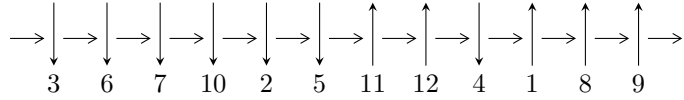


12a₀₂₃₄ (K12a₀₂₃₄)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle u^{74} + u^{73} + \dots + b - u, -10u^{74} - 43u^{73} + \dots + 2a - 15, u^{75} + 4u^{74} + \dots + 4u + 1 \rangle$$

$$I_2^u = \langle b, a^2 - au - u^2 + a + 2u - 1, u^3 - u^2 + 1 \rangle$$

$$I_3^u = \langle b - 1, a - 2, u - 1 \rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 82 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.

$$\langle u^{74} + u^{73} + \dots + b - u, -10u^{74} - 43u^{73} + \dots + 2a - 15, u^{75} + 4u^{74} + \dots + 4u + 1 \rangle$$

I. $I_1^u =$

(i) Arc colorings

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

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

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

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

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

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

$$a_{10} = \begin{pmatrix} 5u^{74} + \frac{43}{2}u^{73} + \dots + \frac{39}{2}u + \frac{15}{2} \\ -u^{74} - u^{73} + \dots + 4u^2 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} \frac{5}{2}u^{74} + 11u^{73} + \dots + \frac{13}{2}u + 3 \\ \frac{1}{2}u^{74} + \frac{5}{2}u^{73} + \dots + 4u + 1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u^7 - 2u^5 + 2u^3 - 2u \\ -u^7 + u^5 - 2u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 2u^{74} + \frac{5}{2}u^{73} + \dots - \frac{19}{2}u - \frac{5}{2} \\ 6u^{74} + 23u^{73} + \dots + 27u + 8 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -\frac{1}{2}u^{73} - u^{72} + \dots + \frac{5}{2}u + \frac{1}{2} \\ u^{26} - 4u^{24} + \dots - 4u^3 - 3u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} \frac{1}{2}u^{74} + u^{73} + \dots - \frac{13}{2}u^2 - \frac{7}{2}u \\ \frac{1}{2}u^{74} + \frac{5}{2}u^{73} + \dots + 4u + 1 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $-31u^{74} - \frac{187}{2}u^{73} + \dots - \frac{159}{2}u - 23$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{75} + 24u^{74} + \dots - 16u + 1$
c_2, c_5	$u^{75} + 4u^{74} + \dots + 4u + 1$
c_3	$u^{75} - 2u^{74} + \dots - 2768u + 1009$
c_4, c_9	$u^{75} - 2u^{74} + \dots + 32u - 64$
c_7, c_8, c_{11} c_{12}	$u^{75} - 3u^{74} + \dots - 7u - 1$
c_{10}	$u^{75} + 21u^{74} + \dots - 4045u + 239$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{75} + 56y^{74} + \dots + 160y - 1$
c_2, c_5	$y^{75} - 24y^{74} + \dots - 16y - 1$
c_3	$y^{75} - 4y^{74} + \dots - 1197196y - 1018081$
c_4, c_9	$y^{75} - 34y^{74} + \dots + 82944y - 4096$
c_7, c_8, c_{11} c_{12}	$y^{75} - 87y^{74} + \dots + 53y - 1$
c_{10}	$y^{75} - 3y^{74} + \dots + 27550093y - 57121$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.711207 + 0.731942I$ $a = 0.073783 + 0.958389I$ $b = -0.923873 - 0.439880I$	$3.44957 + 0.11709I$	0
$u = -0.711207 - 0.731942I$ $a = 0.073783 - 0.958389I$ $b = -0.923873 + 0.439880I$	$3.44957 - 0.11709I$	0
$u = -1.016490 + 0.108693I$ $a = 0.1180520 - 0.0250300I$ $b = -0.383356 - 1.026800I$	$5.05953 + 3.13748I$	0
$u = -1.016490 - 0.108693I$ $a = 0.1180520 + 0.0250300I$ $b = -0.383356 + 1.026800I$	$5.05953 - 3.13748I$	0
$u = -0.660509 + 0.785762I$ $a = -0.663561 - 0.985879I$ $b = 1.107580 + 0.521055I$	$-0.12076 - 2.74550I$	0
$u = -0.660509 - 0.785762I$ $a = -0.663561 + 0.985879I$ $b = 1.107580 - 0.521055I$	$-0.12076 + 2.74550I$	0
$u = -0.965638 + 0.051778I$ $a = -0.0394728 + 0.0390828I$ $b = 0.172922 + 0.877447I$	$-1.86895 + 1.44234I$	0
$u = -0.965638 - 0.051778I$ $a = -0.0394728 - 0.0390828I$ $b = 0.172922 - 0.877447I$	$-1.86895 - 1.44234I$	0
$u = 0.722226 + 0.744545I$ $a = 0.18997 + 1.79205I$ $b = -0.477443 - 0.900673I$	$3.49030 + 0.98913I$	0
$u = 0.722226 - 0.744545I$ $a = 0.18997 - 1.79205I$ $b = -0.477443 + 0.900673I$	$3.49030 - 0.98913I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.697965 + 0.783588I$ $a = -0.35474 - 1.96967I$ $b = 0.569105 + 1.003110I$	$11.08350 + 2.94021I$	0
$u = 0.697965 - 0.783588I$ $a = -0.35474 + 1.96967I$ $b = 0.569105 - 1.003110I$	$11.08350 - 2.94021I$	0
$u = 0.785691 + 0.697977I$ $a = 0.09437 - 1.44165I$ $b = 0.324972 + 0.756336I$	$2.20022 - 1.98773I$	0
$u = 0.785691 - 0.697977I$ $a = 0.09437 + 1.44165I$ $b = 0.324972 - 0.756336I$	$2.20022 + 1.98773I$	0
$u = -0.671002 + 0.820090I$ $a = 0.83769 + 1.20399I$ $b = -1.140810 - 0.631940I$	$1.38833 - 6.65529I$	0
$u = -0.671002 - 0.820090I$ $a = 0.83769 - 1.20399I$ $b = -1.140810 + 0.631940I$	$1.38833 + 6.65529I$	0
$u = 1.06726$ $a = 1.51914$ $b = 1.24765$	-1.46846	0
$u = 1.063370 + 0.091921I$ $a = -1.48543 + 0.57951I$ $b = -1.204920 - 0.351467I$	$-6.19357 - 2.44894I$	0
$u = 1.063370 - 0.091921I$ $a = -1.48543 - 0.57951I$ $b = -1.204920 + 0.351467I$	$-6.19357 + 2.44894I$	0
$u = -0.766146 + 0.749616I$ $a = 0.30396 - 1.44485I$ $b = 0.764353 + 0.496302I$	$12.27310 + 1.21172I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.766146 - 0.749616I$ $a = 0.30396 + 1.44485I$ $b = 0.764353 - 0.496302I$	$12.27310 - 1.21172I$	0
$u = 0.908509 + 0.580630I$ $a = -0.94613 + 1.40143I$ $b = -0.107565 - 0.998481I$	$7.57381 - 2.23045I$	0
$u = 0.908509 - 0.580630I$ $a = -0.94613 - 1.40143I$ $b = -0.107565 + 0.998481I$	$7.57381 + 2.23045I$	0
$u = 1.072730 + 0.131160I$ $a = 1.38515 - 0.78395I$ $b = 1.210390 + 0.505142I$	$-5.10143 - 6.45888I$	0
$u = 1.072730 - 0.131160I$ $a = 1.38515 + 0.78395I$ $b = 1.210390 - 0.505142I$	$-5.10143 + 6.45888I$	0
$u = -0.682230 + 0.841524I$ $a = -0.94322 - 1.37024I$ $b = 1.151480 + 0.720103I$	$9.20789 - 9.23314I$	0
$u = -0.682230 - 0.841524I$ $a = -0.94322 + 1.37024I$ $b = 1.151480 - 0.720103I$	$9.20789 + 9.23314I$	0
$u = -0.993937 + 0.434871I$ $a = 0.133903 - 0.616443I$ $b = -1.174540 - 0.467698I$	$4.04103 - 2.59869I$	0
$u = -0.993937 - 0.434871I$ $a = 0.133903 + 0.616443I$ $b = -1.174540 + 0.467698I$	$4.04103 + 2.59869I$	0
$u = -0.971580 + 0.501941I$ $a = 0.063789 + 0.774786I$ $b = 1.174790 + 0.276036I$	$-2.94814 - 0.18097I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.971580 - 0.501941I$ $a = 0.063789 - 0.774786I$ $b = 1.174790 - 0.276036I$	$-2.94814 + 0.18097I$	0
$u = 1.081740 + 0.163201I$ $a = -1.30157 + 0.93027I$ $b = -1.210650 - 0.632851I$	$2.40082 - 9.12230I$	0
$u = 1.081740 - 0.163201I$ $a = -1.30157 - 0.93027I$ $b = -1.210650 + 0.632851I$	$2.40082 + 9.12230I$	0
$u = 0.888282$ $a = -3.24544$ $b = -0.629954$	7.31928	-10.6220
$u = -0.982759 + 0.562329I$ $a = -0.216181 - 1.041120I$ $b = -1.209770 - 0.100303I$	$-3.43339 + 3.68758I$	0
$u = -0.982759 - 0.562329I$ $a = -0.216181 + 1.041120I$ $b = -1.209770 + 0.100303I$	$-3.43339 - 3.68758I$	0
$u = -0.499811 + 0.691420I$ $a = 0.744111 - 0.062254I$ $b = -1.178410 - 0.102990I$	$3.70237 - 1.18565I$	$0.324301 + 0.368937I$
$u = -0.499811 - 0.691420I$ $a = 0.744111 + 0.062254I$ $b = -1.178410 + 0.102990I$	$3.70237 + 1.18565I$	$0.324301 - 0.368937I$
$u = 0.836198 + 0.792398I$ $a = 0.716749 + 1.015140I$ $b = -0.683410 - 0.394873I$	$4.26586 - 3.75101I$	0
$u = 0.836198 - 0.792398I$ $a = 0.716749 - 1.015140I$ $b = -0.683410 + 0.394873I$	$4.26586 + 3.75101I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.937039 + 0.676923I$ $a = 1.012900 - 0.915123I$ $b = -0.211047 + 0.866238I$	$1.72641 - 3.30860I$	0
$u = 0.937039 - 0.676923I$ $a = 1.012900 + 0.915123I$ $b = -0.211047 - 0.866238I$	$1.72641 + 3.30860I$	0
$u = 0.826326 + 0.828687I$ $a = -1.00165 - 1.24716I$ $b = 0.907683 + 0.488606I$	$11.80470 - 5.23133I$	0
$u = 0.826326 - 0.828687I$ $a = -1.00165 + 1.24716I$ $b = 0.907683 - 0.488606I$	$11.80470 + 5.23133I$	0
$u = -1.010410 + 0.619026I$ $a = 0.27560 + 1.47068I$ $b = 1.274680 - 0.127579I$	$2.28478 + 6.17362I$	0
$u = -1.010410 - 0.619026I$ $a = 0.27560 - 1.47068I$ $b = 1.274680 + 0.127579I$	$2.28478 - 6.17362I$	0
$u = -0.952521 + 0.709229I$ $a = -1.25985 - 2.13172I$ $b = -0.819855 + 0.405800I$	$11.70100 + 4.33992I$	0
$u = -0.952521 - 0.709229I$ $a = -1.25985 + 2.13172I$ $b = -0.819855 - 0.405800I$	$11.70100 - 4.33992I$	0
$u = 0.914778 + 0.769195I$ $a = -1.046570 - 0.021063I$ $b = 0.622847 - 0.319420I$	$4.02488 - 2.11438I$	0
$u = 0.914778 - 0.769195I$ $a = -1.046570 + 0.021063I$ $b = 0.622847 + 0.319420I$	$4.02488 + 2.11438I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.982465 + 0.687726I$		
$a = 0.78718 + 1.95441I$	$2.62497 + 5.32088I$	0
$b = 1.032380 - 0.389930I$		
$u = -0.982465 - 0.687726I$		
$a = 0.78718 - 1.95441I$	$2.62497 - 5.32088I$	0
$b = 1.032380 + 0.389930I$		
$u = 0.976735 + 0.698504I$		
$a = -1.30467 + 0.82935I$	$2.71841 - 6.49505I$	0
$b = 0.428493 - 0.975607I$		
$u = 0.976735 - 0.698504I$		
$a = -1.30467 - 0.82935I$	$2.71841 + 6.49505I$	0
$b = 0.428493 + 0.975607I$		
$u = 0.999165 + 0.711748I$		
$a = 1.48010 - 0.81442I$	$10.17200 - 8.59556I$	0
$b = -0.557335 + 1.061150I$		
$u = 0.999165 - 0.711748I$		
$a = 1.48010 + 0.81442I$	$10.17200 + 8.59556I$	0
$b = -0.557335 - 1.061150I$		
$u = 0.940369 + 0.791453I$		
$a = 1.42868 + 0.04316I$	$11.45350 - 0.81358I$	0
$b = -0.886134 + 0.434484I$		
$u = 0.940369 - 0.791453I$		
$a = 1.42868 - 0.04316I$	$11.45350 + 0.81358I$	0
$b = -0.886134 - 0.434484I$		
$u = -1.015930 + 0.701587I$		
$a = -0.47859 - 2.18042I$	$-1.18776 + 8.36921I$	0
$b = -1.177240 + 0.537485I$		
$u = -1.015930 - 0.701587I$		
$a = -0.47859 + 2.18042I$	$-1.18776 - 8.36921I$	0
$b = -1.177240 - 0.537485I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.023410 + 0.718352I$ $a = 0.43055 + 2.34903I$ $b = 1.186660 - 0.649196I$	$0.31813 + 12.42890I$	0
$u = -1.023410 - 0.718352I$ $a = 0.43055 - 2.34903I$ $b = 1.186660 + 0.649196I$	$0.31813 - 12.42890I$	0
$u = -1.026990 + 0.731679I$ $a = -0.40791 - 2.47441I$ $b = -1.181080 + 0.737477I$	$8.1534 + 15.1124I$	0
$u = -1.026990 - 0.731679I$ $a = -0.40791 + 2.47441I$ $b = -1.181080 - 0.737477I$	$8.1534 - 15.1124I$	0
$u = -0.170137 + 0.694294I$ $a = -0.93682 + 1.35426I$ $b = 1.121250 - 0.579634I$	$6.51786 + 6.48932I$	$3.20143 - 4.96610I$
$u = -0.170137 - 0.694294I$ $a = -0.93682 - 1.35426I$ $b = 1.121250 + 0.579634I$	$6.51786 - 6.48932I$	$3.20143 + 4.96610I$
$u = -0.222380 + 0.645831I$ $a = 0.772263 - 1.148320I$ $b = -1.070320 + 0.435701I$	$-0.91107 + 4.17004I$	$-0.03505 - 6.87095I$
$u = -0.222380 - 0.645831I$ $a = 0.772263 + 1.148320I$ $b = -1.070320 - 0.435701I$	$-0.91107 - 4.17004I$	$-0.03505 + 6.87095I$
$u = -0.330794 + 0.589043I$ $a = -0.558254 + 0.771750I$ $b = 1.021100 - 0.213253I$	$-1.84200 + 0.63905I$	$-3.61059 - 0.19351I$
$u = -0.330794 - 0.589043I$ $a = -0.558254 - 0.771750I$ $b = 1.021100 + 0.213253I$	$-1.84200 - 0.63905I$	$-3.61059 + 0.19351I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.671696$ $a = 0.135845$ $b = 0.375009$	-0.909794	-11.9330
$u = 0.185398 + 0.482510I$ $a = -0.25875 + 2.28529I$ $b = 0.376277 - 0.783708I$	$8.74623 - 1.35684I$	$6.78331 + 0.85499I$
$u = 0.185398 - 0.482510I$ $a = -0.25875 - 2.28529I$ $b = 0.376277 + 0.783708I$	$8.74623 + 1.35684I$	$6.78331 - 0.85499I$
$u = 0.066176 + 0.284258I$ $a = -0.35019 - 2.23595I$ $b = -0.345577 + 0.468199I$	$1.171050 - 0.405728I$	$7.00634 + 1.53169I$
$u = 0.066176 - 0.284258I$ $a = -0.35019 + 2.23595I$ $b = -0.345577 - 0.468199I$	$1.171050 + 0.405728I$	$7.00634 - 1.53169I$

$$\text{II. } I_2^u = \langle b, a^2 - au - u^2 + a + 2u - 1, u^3 - u^2 + 1 \rangle$$

(i) Arc colorings

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

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

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

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

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

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

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

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

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

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

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

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

(ii) Obstruction class = 1

(iii) Cusp Shapes = $-u^2a + 3u^2 - a + 1$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3	$(u^3 - u^2 + 2u - 1)^2$
c_2	$(u^3 + u^2 - 1)^2$
c_4, c_9	u^6
c_5	$(u^3 - u^2 + 1)^2$
c_6	$(u^3 + u^2 + 2u + 1)^2$
c_7, c_8, c_{10}	$(u^2 - u - 1)^3$
c_{11}, c_{12}	$(u^2 + u - 1)^3$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_6	$(y^3 + 3y^2 + 2y - 1)^2$
c_2, c_5	$(y^3 - y^2 + 2y - 1)^2$
c_4, c_9	y^6
c_7, c_8, c_{10} c_{11}, c_{12}	$(y^2 - 3y + 1)^3$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.877439 + 0.744862I$ $a = -0.198308 + 1.205210I$ $b = 0$	$11.90680 - 2.82812I$	$3.46158 + 2.71621I$
$u = 0.877439 + 0.744862I$ $a = 0.075747 - 0.460350I$ $b = 0$	$4.01109 - 2.82812I$	$0.95146 + 4.38177I$
$u = 0.877439 - 0.744862I$ $a = -0.198308 - 1.205210I$ $b = 0$	$11.90680 + 2.82812I$	$3.46158 - 2.71621I$
$u = 0.877439 - 0.744862I$ $a = 0.075747 + 0.460350I$ $b = 0$	$4.01109 + 2.82812I$	$0.95146 - 4.38177I$
$u = -0.754878$ $a = 1.08457$ $b = 0$	-0.126494	1.00690
$u = -0.754878$ $a = -2.83945$ $b = 0$	7.76919	7.16700

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

(i) Arc colorings

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

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

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

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

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

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

$$a_{10} = \begin{pmatrix} 2 \\ 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$

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

(ii) Obstruction class = -1

(iii) Cusp Shapes = -6

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

Crossings	u-Polynomials at each crossing
c_1, c_4, c_6 c_9	$u + 1$
c_2, c_3, c_5 c_7, c_8, c_{10} c_{11}, c_{12}	$u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3	$y - 1$
c_4, c_5, c_6	
c_7, c_8, c_9	
c_{10}, c_{11}, c_{12}	

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.00000$		
$a = 2.00000$	-1.64493	-6.00000
$b = 1.00000$		

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u + 1)(u^3 - u^2 + 2u - 1)^2(u^{75} + 24u^{74} + \dots - 16u + 1)$
c_2	$(u - 1)(u^3 + u^2 - 1)^2(u^{75} + 4u^{74} + \dots + 4u + 1)$
c_3	$(u - 1)(u^3 - u^2 + 2u - 1)^2(u^{75} - 2u^{74} + \dots - 2768u + 1009)$
c_4, c_9	$u^6(u + 1)(u^{75} - 2u^{74} + \dots + 32u - 64)$
c_5	$(u - 1)(u^3 - u^2 + 1)^2(u^{75} + 4u^{74} + \dots + 4u + 1)$
c_6	$(u + 1)(u^3 + u^2 + 2u + 1)^2(u^{75} + 24u^{74} + \dots - 16u + 1)$
c_7, c_8	$(u - 1)(u^2 - u - 1)^3(u^{75} - 3u^{74} + \dots - 7u - 1)$
c_{10}	$(u - 1)(u^2 - u - 1)^3(u^{75} + 21u^{74} + \dots - 4045u + 239)$
c_{11}, c_{12}	$(u - 1)(u^2 + u - 1)^3(u^{75} - 3u^{74} + \dots - 7u - 1)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$(y - 1)(y^3 + 3y^2 + 2y - 1)^2(y^{75} + 56y^{74} + \dots + 160y - 1)$
c_2, c_5	$(y - 1)(y^3 - y^2 + 2y - 1)^2(y^{75} - 24y^{74} + \dots - 16y - 1)$
c_3	$(y - 1)(y^3 + 3y^2 + 2y - 1)^2(y^{75} - 4y^{74} + \dots - 1197196y - 1018081)$
c_4, c_9	$y^6(y - 1)(y^{75} - 34y^{74} + \dots + 82944y - 4096)$
c_7, c_8, c_{11} c_{12}	$(y - 1)(y^2 - 3y + 1)^3(y^{75} - 87y^{74} + \dots + 53y - 1)$
c_{10}	$(y - 1)(y^2 - 3y + 1)^3(y^{75} - 3y^{74} + \dots + 2.75501 \times 10^7 y - 57121)$