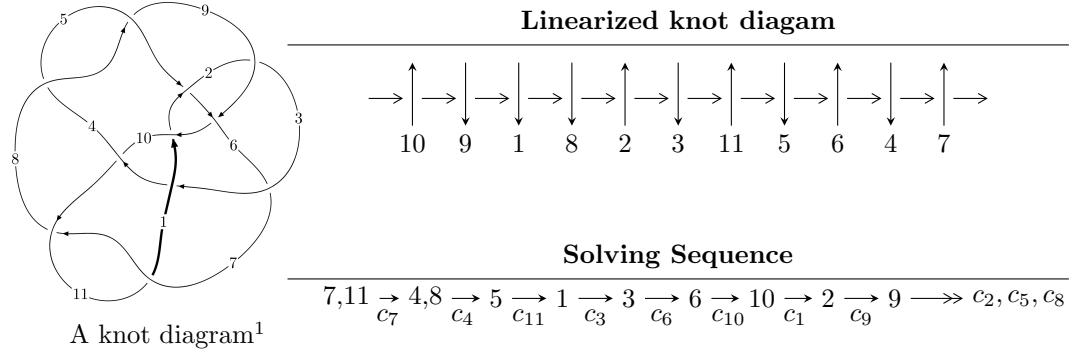


11a₂₆₉ ($K11a_{269}$)



Ideals for irreducible components² of X_{par}

$$\begin{aligned} I_1^u &= \langle -4.49185 \times 10^{277} u^{94} - 2.89200 \times 10^{277} u^{93} + \dots + 3.55034 \times 10^{279} b + 8.38424 \times 10^{277}, \\ &\quad 9.85122 \times 10^{279} u^{94} + 1.40469 \times 10^{279} u^{93} + \dots + 3.90538 \times 10^{280} a - 1.47273 \times 10^{282}, \\ &\quad u^{95} + 35u^{93} + \dots - 304u + 31 \rangle \\ I_2^u &= \langle -7910376u^{19} + 4613793u^{18} + \dots + 11691787b + 11999209, \\ &\quad 5476396u^{19} - 5762435u^{18} + \dots + 11691787a - 44515827, u^{20} - u^{19} + \dots - 4u - 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 115 representations.

¹The image of knot diagram is generated by the software “**Draw programme**” developed by Andrew Bartholomew(<http://www.layer8.co.uk/math/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.

$$\text{I. } I_1^u = \langle -4.49 \times 10^{277}u^{94} - 2.89 \times 10^{277}u^{93} + \dots + 3.55 \times 10^{279}b + 8.38 \times 10^{277}, 9.85 \times 10^{279}u^{94} + 1.40 \times 10^{279}u^{93} + \dots + 3.91 \times 10^{280}a - 1.47 \times 10^{282}, u^{95} + 35u^{93} + \dots - 304u + 31 \rangle$$

(i) **Arc colorings**

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

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

$$a_4 = \begin{pmatrix} -0.252248u^{94} - 0.0359681u^{93} + \dots - 187.834u + 37.7103 \\ 0.0126519u^{94} + 0.00814570u^{93} + \dots + 6.14641u - 0.0236153 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} -0.223306u^{94} + 0.0151371u^{93} + \dots - 190.866u + 36.6189 \\ 0.0215402u^{94} + 0.0658023u^{93} + \dots - 8.49240u + 1.56065 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} -0.228927u^{94} - 0.00653034u^{93} + \dots - 182.635u + 36.3428 \\ 0.0359728u^{94} + 0.0375835u^{93} + \dots + 11.3451u - 1.39114 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.132211u^{94} + 0.0353042u^{93} + \dots + 52.2661u - 13.3444 \\ -0.0286481u^{94} - 0.0274990u^{93} + \dots - 27.6589u + 3.67427 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.588967u^{94} - 0.122495u^{93} + \dots - 451.158u + 79.6285 \\ -0.0215088u^{94} + 0.00726948u^{93} + \dots - 43.9334u + 8.03715 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -1.04919u^{94} - 0.197484u^{93} + \dots - 719.135u + 125.759 \\ -0.278898u^{94} - 0.00407899u^{93} + \dots - 166.161u + 28.6179 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.332719u^{94} - 0.0981982u^{93} + \dots - 254.739u + 49.5570 \\ 0.0297838u^{94} + 0.00801573u^{93} + \dots + 7.57210u + 0.539403 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.332719u^{94} - 0.0981982u^{93} + \dots - 254.739u + 49.5570 \\ 0.0297838u^{94} + 0.00801573u^{93} + \dots + 7.57210u + 0.539403 \end{pmatrix}$$

(ii) **Obstruction class** = -1

(iii) **Cusp Shapes** = $-0.425242u^{94} - 0.172495u^{93} + \dots - 151.920u + 18.7514$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{95} + 8u^{94} + \cdots - 1011270u - 170729$
c_2	$u^{95} + 3u^{94} + \cdots + 6615u - 451$
c_3	$u^{95} + 6u^{94} + \cdots + 2006u + 1867$
c_4, c_8	$u^{95} + 5u^{94} + \cdots + 290u + 31$
c_5	$u^{95} - u^{94} + \cdots - 4620u - 413$
c_6	$u^{95} - 2u^{94} + \cdots - 4406294u - 7707151$
c_7, c_{11}	$u^{95} + 35u^{93} + \cdots - 304u - 31$
c_9	$u^{95} + u^{94} + \cdots - 13u - 1$
c_{10}	$u^{95} - 23u^{93} + \cdots - 51128u + 2537$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{95} + 32y^{94} + \cdots - 975808808676y - 29148391441$
c_2	$y^{95} - 33y^{94} + \cdots + 5314083y - 203401$
c_3	$y^{95} - 34y^{94} + \cdots + 99285844y - 3485689$
c_4, c_8	$y^{95} - 89y^{94} + \cdots - 142386y - 961$
c_5	$y^{95} + 23y^{94} + \cdots - 4607694y - 170569$
c_6	$y^{95} - 58y^{94} + \cdots + 1536043799096208y - 59400176536801$
c_7, c_{11}	$y^{95} + 70y^{94} + \cdots + 1958y - 961$
c_9	$y^{95} + 11y^{94} + \cdots - 61y - 1$
c_{10}	$y^{95} - 46y^{94} + \cdots + 1721708004y - 6436369$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.203044 + 0.917129I$	$-4.56432 + 0.25339I$	0
$a = -0.072460 + 0.599163I$		
$b = -1.83757 + 1.44426I$		
$u = 0.203044 - 0.917129I$	$-4.56432 - 0.25339I$	0
$a = -0.072460 - 0.599163I$		
$b = -1.83757 - 1.44426I$		
$u = 0.188818 + 1.046850I$	$-1.00596 + 4.93534I$	0
$a = 0.353704 + 1.363350I$		
$b = 0.82428 + 2.06012I$		
$u = 0.188818 - 1.046850I$	$-1.00596 - 4.93534I$	0
$a = 0.353704 - 1.363350I$		
$b = 0.82428 - 2.06012I$		
$u = -0.841903 + 0.379537I$	$-3.29557 + 3.88851I$	0
$a = -1.46081 - 0.05491I$		
$b = -0.451611 - 0.818600I$		
$u = -0.841903 - 0.379537I$	$-3.29557 - 3.88851I$	0
$a = -1.46081 + 0.05491I$		
$b = -0.451611 + 0.818600I$		
$u = 0.174169 + 0.902857I$	$0.131344 - 1.193480I$	0
$a = 0.014969 - 0.537441I$		
$b = -0.646019 - 1.176240I$		
$u = 0.174169 - 0.902857I$	$0.131344 + 1.193480I$	0
$a = 0.014969 + 0.537441I$		
$b = -0.646019 + 1.176240I$		
$u = 0.781278 + 0.449701I$	$-3.83969 + 3.68020I$	0
$a = 0.482897 - 1.147300I$		
$b = 0.258543 + 0.080747I$		
$u = 0.781278 - 0.449701I$	$-3.83969 - 3.68020I$	0
$a = 0.482897 + 1.147300I$		
$b = 0.258543 - 0.080747I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.147761 + 1.110270I$		
$a = -0.464772 + 0.570801I$	$-4.51152 + 0.64108I$	0
$b = -0.45030 + 1.94664I$		
$u = 0.147761 - 1.110270I$		
$a = -0.464772 - 0.570801I$	$-4.51152 - 0.64108I$	0
$b = -0.45030 - 1.94664I$		
$u = 0.873588 + 0.053551I$		
$a = -0.864438 - 0.922058I$	$-0.90223 - 7.26936I$	$0. + 7.70751I$
$b = 0.277114 - 0.192656I$		
$u = 0.873588 - 0.053551I$		
$a = -0.864438 + 0.922058I$	$-0.90223 + 7.26936I$	$0. - 7.70751I$
$b = 0.277114 + 0.192656I$		
$u = -0.853098 + 0.138319I$		
$a = 0.467239 - 0.646604I$	$2.42910 - 0.66447I$	0
$b = 0.227419 + 0.058231I$		
$u = -0.853098 - 0.138319I$		
$a = 0.467239 + 0.646604I$	$2.42910 + 0.66447I$	0
$b = 0.227419 - 0.058231I$		
$u = -0.214908 + 1.153540I$		
$a = 0.207367 - 0.595525I$	$-4.42358 - 0.93929I$	0
$b = 0.49768 - 2.75342I$		
$u = -0.214908 - 1.153540I$		
$a = 0.207367 + 0.595525I$	$-4.42358 + 0.93929I$	0
$b = 0.49768 + 2.75342I$		
$u = -0.410035 + 1.106710I$		
$a = 0.19753 + 1.95483I$	$-5.58860 - 8.53903I$	0
$b = -0.21279 + 2.51734I$		
$u = -0.410035 - 1.106710I$		
$a = 0.19753 - 1.95483I$	$-5.58860 + 8.53903I$	0
$b = -0.21279 - 2.51734I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.065053 + 1.185530I$	$-5.52730 + 1.54119I$	0
$a = -1.088310 + 0.080842I$		
$b = -0.004477 + 0.558757I$		
$u = 0.065053 - 1.185530I$	$-5.52730 - 1.54119I$	0
$a = -1.088310 - 0.080842I$		
$b = -0.004477 - 0.558757I$		
$u = 1.182220 + 0.171664I$	$-6.11822 + 3.45479I$	0
$a = -0.825483 + 0.487836I$		
$b = -0.135537 + 0.091551I$		
$u = 1.182220 - 0.171664I$	$-6.11822 - 3.45479I$	0
$a = -0.825483 - 0.487836I$		
$b = -0.135537 - 0.091551I$		
$u = 0.015472 + 1.211050I$	$-8.90213 + 6.92952I$	0
$a = 2.13863 - 1.20659I$		
$b = 1.76210 - 1.71409I$		
$u = 0.015472 - 1.211050I$	$-8.90213 - 6.92952I$	0
$a = 2.13863 + 1.20659I$		
$b = 1.76210 + 1.71409I$		
$u = -0.300875 + 1.186360I$	$-4.85814 - 5.15679I$	0
$a = -1.056320 - 0.895869I$		
$b = -0.87032 - 1.56886I$		
$u = -0.300875 - 1.186360I$	$-4.85814 + 5.15679I$	0
$a = -1.056320 + 0.895869I$		
$b = -0.87032 + 1.56886I$		
$u = -0.597468 + 0.471809I$	$0.16031 - 2.08239I$	$3.28409 + 5.43220I$
$a = 0.387239 - 1.071350I$		
$b = 0.447471 - 0.089097I$		
$u = -0.597468 - 0.471809I$	$0.16031 + 2.08239I$	$3.28409 - 5.43220I$
$a = 0.387239 + 1.071350I$		
$b = 0.447471 + 0.089097I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.373977 + 1.191530I$ $a = -0.508278 - 1.136990I$ $b = -0.234912 - 1.231560I$	$-5.82363 + 4.27424I$	0
$u = 0.373977 - 1.191530I$ $a = -0.508278 + 1.136990I$ $b = -0.234912 + 1.231560I$	$-5.82363 - 4.27424I$	0
$u = 0.126110 + 1.254030I$ $a = 1.06317 + 1.57024I$ $b = 0.78981 + 2.36764I$	$-9.12386 + 3.30593I$	0
$u = 0.126110 - 1.254030I$ $a = 1.06317 - 1.57024I$ $b = 0.78981 - 2.36764I$	$-9.12386 - 3.30593I$	0
$u = -1.253650 + 0.190827I$ $a = 0.743113 + 0.527927I$ $b = 0.0522154 - 0.1040810I$	$-6.46116 - 11.90460I$	0
$u = -1.253650 - 0.190827I$ $a = 0.743113 - 0.527927I$ $b = 0.0522154 + 0.1040810I$	$-6.46116 + 11.90460I$	0
$u = 0.015327 + 1.271330I$ $a = 0.422614 + 1.071250I$ $b = -0.64580 + 2.04830I$	$-9.14776 - 1.14213I$	0
$u = 0.015327 - 1.271330I$ $a = 0.422614 - 1.071250I$ $b = -0.64580 - 2.04830I$	$-9.14776 + 1.14213I$	0
$u = -0.377285 + 1.214920I$ $a = 0.289098 - 0.998400I$ $b = 0.47140 - 1.69716I$	$-0.92977 - 3.70164I$	0
$u = -0.377285 - 1.214920I$ $a = 0.289098 + 0.998400I$ $b = 0.47140 + 1.69716I$	$-0.92977 + 3.70164I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.288570 + 0.007471I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.818723 - 0.198916I$	$-5.36768 - 2.13610I$	0
$b = 0.042763 + 0.289683I$		
$u = -1.288570 - 0.007471I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.818723 + 0.198916I$	$-5.36768 + 2.13610I$	0
$b = 0.042763 - 0.289683I$		
$u = 0.096861 + 1.285190I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -1.29489 - 1.50125I$	$-9.26018 + 1.58608I$	0
$b = -1.21097 - 2.02058I$		
$u = 0.096861 - 1.285190I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -1.29489 + 1.50125I$	$-9.26018 - 1.58608I$	0
$b = -1.21097 + 2.02058I$		
$u = 0.318977 + 1.271910I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.049631 + 0.924265I$	$-5.15661 + 5.20956I$	0
$b = 0.55142 + 2.17316I$		
$u = 0.318977 - 1.271910I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.049631 - 0.924265I$	$-5.15661 - 5.20956I$	0
$b = 0.55142 - 2.17316I$		
$u = 0.475645 + 0.496446I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -1.02531 - 1.03413I$	$1.39130 + 4.10735I$	$0.47882 - 9.23280I$
$b = 0.272472 + 0.084254I$		
$u = 0.475645 - 0.496446I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -1.02531 + 1.03413I$	$1.39130 - 4.10735I$	$0.47882 + 9.23280I$
$b = 0.272472 - 0.084254I$		
$u = -0.092319 + 1.316330I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 0.312500 - 0.740469I$	$-10.61240 - 8.00084I$	0
$b = -1.02183 - 1.77722I$		
$u = -0.092319 - 1.316330I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 0.312500 + 0.740469I$	$-10.61240 + 8.00084I$	0
$b = -1.02183 + 1.77722I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.403900 + 1.270130I$		
$a = -0.297287 - 0.873496I$	$-4.71304 + 11.85200I$	0
$b = -0.68395 - 2.26832I$		
$u = 0.403900 - 1.270130I$		
$a = -0.297287 + 0.873496I$	$-4.71304 - 11.85200I$	0
$b = -0.68395 + 2.26832I$		
$u = 0.646591$		
$a = -0.343975$	-2.63135	-2.77190
$b = -1.02884$		
$u = -0.190459 + 0.613907I$		
$a = 0.478623 - 0.574775I$	$-0.082881 - 1.263940I$	$-0.49456 + 4.76991I$
$b = -0.017788 - 0.619736I$		
$u = -0.190459 - 0.613907I$		
$a = 0.478623 + 0.574775I$	$-0.082881 + 1.263940I$	$-0.49456 - 4.76991I$
$b = -0.017788 + 0.619736I$		
$u = -0.218133 + 1.353350I$		
$a = -0.248608 + 0.800951I$	-5.40102 - 4.78928I	0
$b = -0.86184 + 1.96783I$		
$u = -0.218133 - 1.353350I$		
$a = -0.248608 - 0.800951I$	-5.40102 + 4.78928I	0
$b = -0.86184 - 1.96783I$		
$u = 0.559623 + 0.272141I$		
$a = -0.294821 - 0.389565I$	$-2.66399 - 0.03648I$	$-5.52133 - 0.36616I$
$b = -1.142410 + 0.129341I$		
$u = 0.559623 - 0.272141I$		
$a = -0.294821 + 0.389565I$	$-2.66399 + 0.03648I$	$-5.52133 + 0.36616I$
$b = -1.142410 - 0.129341I$		
$u = 0.282479 + 1.349510I$		
$a = 0.555402 - 0.636749I$	$-5.51333 - 3.00258I$	0
$b = 0.606958 - 1.255200I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.282479 - 1.349510I$		
$a = 0.555402 + 0.636749I$	$-5.51333 + 3.00258I$	0
$b = 0.606958 + 1.255200I$		
$u = 0.605423 + 0.041300I$		
$a = 1.069190 + 0.701968I$	$-1.33339 - 1.63852I$	$-3.10982 + 5.30448I$
$b = -0.402539 - 0.202573I$		
$u = 0.605423 - 0.041300I$		
$a = 1.069190 - 0.701968I$	$-1.33339 + 1.63852I$	$-3.10982 - 5.30448I$
$b = -0.402539 + 0.202573I$		
$u = -0.453504 + 1.318710I$		
$a = -0.051826 + 0.472508I$	$-2.17172 - 5.56944I$	0
$b = -0.451784 + 1.214970I$		
$u = -0.453504 - 1.318710I$		
$a = -0.051826 - 0.472508I$	$-2.17172 + 5.56944I$	0
$b = -0.451784 - 1.214970I$		
$u = -1.40514$		
$a = 0.0463063$	2.64340	0
$b = 0.207522$		
$u = -0.10693 + 1.42071I$		
$a = -0.217725 + 0.645099I$	$-9.79145 + 0.88028I$	0
$b = 0.78436 + 1.54264I$		
$u = -0.10693 - 1.42071I$		
$a = -0.217725 - 0.645099I$	$-9.79145 - 0.88028I$	0
$b = 0.78436 - 1.54264I$		
$u = -0.566959 + 0.058673I$		
$a = 1.31839 - 1.05059I$	$-1.32796 - 2.03593I$	$-2.81091 + 4.02942I$
$b = -0.369297 - 0.610238I$		
$u = -0.566959 - 0.058673I$		
$a = 1.31839 + 1.05059I$	$-1.32796 + 2.03593I$	$-2.81091 - 4.02942I$
$b = -0.369297 + 0.610238I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.240869 + 0.488806I$		
$a = 2.31131 - 0.20191I$	$0.77353 - 2.77220I$	$4.28354 - 5.94685I$
$b = 0.279330 - 0.414621I$		
$u = 0.240869 - 0.488806I$		
$a = 2.31131 + 0.20191I$	$0.77353 + 2.77220I$	$4.28354 + 5.94685I$
$b = 0.279330 + 0.414621I$		
$u = 0.268380 + 0.438809I$		
$a = 0.07544 + 1.52989I$	$-4.35844 + 0.30967I$	$-6.81908 + 1.81849I$
$b = -1.41741 - 0.11606I$		
$u = 0.268380 - 0.438809I$		
$a = 0.07544 - 1.52989I$	$-4.35844 - 0.30967I$	$-6.81908 - 1.81849I$
$b = -1.41741 + 0.11606I$		
$u = 0.48430 + 1.43457I$		
$a = -0.316264 - 1.135980I$	$-11.2265 + 9.2254I$	0
$b = -0.47266 - 2.14699I$		
$u = 0.48430 - 1.43457I$		
$a = -0.316264 + 1.135980I$	$-11.2265 - 9.2254I$	0
$b = -0.47266 + 2.14699I$		
$u = 0.36287 + 1.48678I$		
$a = 0.491371 + 1.185430I$	$-10.01020 + 8.00571I$	0
$b = 0.93702 + 2.16990I$		
$u = 0.36287 - 1.48678I$		
$a = 0.491371 - 1.185430I$	$-10.01020 - 8.00571I$	0
$b = 0.93702 - 2.16990I$		
$u = -0.51125 + 1.46636I$		
$a = 0.278147 - 1.152910I$	$-11.7151 - 18.0173I$	0
$b = 0.64935 - 2.20744I$		
$u = -0.51125 - 1.46636I$		
$a = 0.278147 + 1.152910I$	$-11.7151 + 18.0173I$	0
$b = 0.64935 + 2.20744I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.56684 + 1.46671I$		
$a = -0.048487 + 1.043460I$	$-10.12190 - 8.69430I$	0
$b = -0.42856 + 2.08566I$		
$u = -0.56684 - 1.46671I$		
$a = -0.048487 - 1.043460I$	$-10.12190 + 8.69430I$	0
$b = -0.42856 - 2.08566I$		
$u = 0.62302 + 1.45703I$		
$a = 0.082524 - 0.808481I$	$-10.15870 + 3.29748I$	0
$b = 0.10092 - 1.42646I$		
$u = 0.62302 - 1.45703I$		
$a = 0.082524 + 0.808481I$	$-10.15870 - 3.29748I$	0
$b = 0.10092 + 1.42646I$		
$u = -0.54127 + 1.51607I$		
$a = -0.075239 + 0.699952I$	$-10.30710 - 4.55633I$	0
$b = 0.14904 + 1.52438I$		
$u = -0.54127 - 1.51607I$		
$a = -0.075239 - 0.699952I$	$-10.30710 + 4.55633I$	0
$b = 0.14904 - 1.52438I$		
$u = 0.50692 + 1.64210I$		
$a = 0.373015 + 0.706230I$	$-7.36395 + 8.25849I$	0
$b = 0.68276 + 1.30103I$		
$u = 0.50692 - 1.64210I$		
$a = 0.373015 - 0.706230I$	$-7.36395 - 8.25849I$	0
$b = 0.68276 - 1.30103I$		
$u = -0.68927 + 1.59442I$		
$a = -0.022023 - 0.575323I$	$-10.59750 + 4.47338I$	0
$b = -0.178238 - 1.123970I$		
$u = -0.68927 - 1.59442I$		
$a = -0.022023 + 0.575323I$	$-10.59750 - 4.47338I$	0
$b = -0.178238 + 1.123970I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.240426 + 0.013081I$		
$a = 4.73836 - 2.19515I$	$-5.23639 + 1.80305I$	$-13.23540 - 2.61610I$
$b = 0.970759 + 0.052525I$		
$u = 0.240426 - 0.013081I$		
$a = 4.73836 + 2.19515I$	$-5.23639 - 1.80305I$	$-13.23540 + 2.61610I$
$b = 0.970759 - 0.052525I$		
$u = -0.113203 + 0.199758I$		
$a = 4.88859 + 2.62634I$	$-5.86002 - 7.03617I$	$-4.37170 + 2.64890I$
$b = 1.38423 + 0.68029I$		
$u = -0.113203 - 0.199758I$		
$a = 4.88859 - 2.62634I$	$-5.86002 + 7.03617I$	$-4.37170 - 2.64890I$
$b = 1.38423 - 0.68029I$		
$u = 1.90140$		
$a = 0.342781$	-0.999308	0
$b = 0.0796956$		

II.

$$I_2^u = \langle -7.91 \times 10^6 u^{19} + 4.61 \times 10^6 u^{18} + \dots + 1.17 \times 10^7 b + 1.20 \times 10^7, \ 5.48 \times 10^6 u^{19} - 5.76 \times 10^6 u^{18} + \dots + 1.17 \times 10^7 a - 4.45 \times 10^7, \ u^{20} - u^{19} + \dots - 4u - 1 \rangle$$

(i) **Arc colorings**

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

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

$$a_4 = \begin{pmatrix} -0.468397u^{19} + 0.492862u^{18} + \dots + 4.89427u + 3.80744 \\ 0.676575u^{19} - 0.394618u^{18} + \dots - 1.65529u - 1.02629 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} -0.821993u^{19} + 0.309222u^{18} + \dots + 6.92010u + 4.80927 \\ 0.401921u^{19} - 0.561807u^{18} + \dots + 0.847245u - 0.489058 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} -0.373674u^{19} - 0.181287u^{18} + \dots + 7.06921u + 4.06494 \\ 0.771298u^{19} - 1.06877u^{18} + \dots + 0.519647u - 0.768802 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -1.30884u^{19} + 2.00891u^{18} + \dots - 0.969911u + 2.30635 \\ 1.14560u^{19} - 1.15803u^{18} + \dots - 6.63837u - 3.38131 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -1.05458u^{19} + 0.911429u^{18} + \dots + 6.99872u + 0.711878 \\ -1.29428u^{19} + 1.47306u^{18} + \dots + 4.37334u + 1.28812 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.496890u^{19} - 0.549726u^{18} + \dots + 1.03711u + 1.84342 \\ 0.429880u^{19} - 0.586122u^{18} + \dots + 1.23691u - 0.299107 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.625281u^{19} + 0.539416u^{18} + \dots - 9.84448u - 3.89682 \\ -0.311727u^{19} - 0.463691u^{18} + \dots + 2.01085u + 0.898380 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.625281u^{19} + 0.539416u^{18} + \dots - 9.84448u - 3.89682 \\ -0.311727u^{19} - 0.463691u^{18} + \dots + 2.01085u + 0.898380 \end{pmatrix}$$

(ii) **Obstruction class = 1**

(iii) **Cusp Shapes** = $\frac{57195566}{11691787}u^{19} + \frac{51163739}{11691787}u^{18} + \dots - \frac{440318058}{11691787}u - \frac{51462026}{11691787}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{20} - 3u^{19} + \cdots - 8u + 3$
c_2	$u^{20} - 6u^{18} + \cdots + 7u + 1$
c_3	$u^{20} + 3u^{19} + \cdots + 10u + 1$
c_4	$u^{20} - 4u^{19} + \cdots - 8u + 1$
c_5	$u^{20} + 2u^{19} + \cdots + 4u - 1$
c_6	$u^{20} - 3u^{19} + \cdots - 24u - 11$
c_7	$u^{20} - u^{19} + \cdots - 4u - 1$
c_8	$u^{20} + 4u^{19} + \cdots + 8u + 1$
c_9	$u^{20} + 6u^{19} + \cdots - u - 1$
c_{10}	$u^{20} + u^{19} + \cdots + 8u - 1$
c_{11}	$u^{20} + u^{19} + \cdots + 4u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{20} - 7y^{19} + \cdots + 74y + 9$
c_2	$y^{20} - 12y^{19} + \cdots - 21y + 1$
c_3	$y^{20} - 9y^{19} + \cdots - 30y + 1$
c_4, c_8	$y^{20} - 20y^{19} + \cdots - 16y + 1$
c_5	$y^{20} + 4y^{19} + \cdots + 8y + 1$
c_6	$y^{20} - 13y^{19} + \cdots - 906y + 121$
c_7, c_{11}	$y^{20} + 11y^{19} + \cdots - 40y^2 + 1$
c_9	$y^{20} + 182y^{18} + \cdots + 7y + 1$
c_{10}	$y^{20} - 9y^{19} + \cdots - 30y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.313088 + 0.937306I$		
$a = 1.03088 + 1.38147I$	$-6.68894 - 7.90509I$	$-9.56805 + 7.40665I$
$b = 1.28593 + 2.05825I$		
$u = -0.313088 - 0.937306I$		
$a = 1.03088 - 1.38147I$	$-6.68894 + 7.90509I$	$-9.56805 - 7.40665I$
$b = 1.28593 - 2.05825I$		
$u = 0.118243 + 0.953129I$		
$a = -0.094690 + 0.353708I$	$-4.72545 + 0.21235I$	$-55.8595 + 30.4757I$
$b = -2.46516 + 2.88157I$		
$u = 0.118243 - 0.953129I$		
$a = -0.094690 - 0.353708I$	$-4.72545 - 0.21235I$	$-55.8595 - 30.4757I$
$b = -2.46516 - 2.88157I$		
$u = 0.877103 + 0.078559I$		
$a = -1.152770 + 0.641823I$	$-4.08582 + 2.63867I$	$-5.42623 - 3.15877I$
$b = -0.306431 - 0.238613I$		
$u = 0.877103 - 0.078559I$		
$a = -1.152770 - 0.641823I$	$-4.08582 - 2.63867I$	$-5.42623 + 3.15877I$
$b = -0.306431 + 0.238613I$		
$u = 0.140448 + 1.313910I$		
$a = -0.429979 - 1.161250I$	$-8.44781 + 0.56098I$	$-9.42748 + 0.13066I$
$b = 0.04003 - 1.93062I$		
$u = 0.140448 - 1.313910I$		
$a = -0.429979 + 1.161250I$	$-8.44781 - 0.56098I$	$-9.42748 - 0.13066I$
$b = 0.04003 + 1.93062I$		
$u = -0.305250 + 1.285790I$		
$a = -0.101129 - 0.868602I$	$-3.03393 - 5.03737I$	$-5.53695 + 5.83797I$
$b = 0.38835 - 1.58017I$		
$u = -0.305250 - 1.285790I$		
$a = -0.101129 + 0.868602I$	$-3.03393 + 5.03737I$	$-5.53695 - 5.83797I$
$b = 0.38835 + 1.58017I$		

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.059755 + 1.364590I$		
$a = 1.119730 - 0.165089I$	$-8.69484 + 5.65123I$	$-8.48652 - 3.86530I$
$b = 0.706696 + 0.068568I$		
$u = -0.059755 - 1.364590I$		
$a = 1.119730 + 0.165089I$	$-8.69484 - 5.65123I$	$-8.48652 + 3.86530I$
$b = 0.706696 - 0.068568I$		
$u = -1.44965$		
$a = 0.201892$	2.55368	-46.5460
$b = -0.0437006$		
$u = -0.136514 + 0.476820I$		
$a = 2.25135 + 0.55765I$	$0.56563 + 3.09674I$	$-6.76716 - 10.88893I$
$b = -0.002319 + 0.630951I$		
$u = -0.136514 - 0.476820I$		
$a = 2.25135 - 0.55765I$	$0.56563 - 3.09674I$	$-6.76716 + 10.88893I$
$b = -0.002319 - 0.630951I$		
$u = 0.44799 + 1.47346I$		
$a = -0.297719 - 1.096590I$	$-9.26140 + 7.75496I$	$-5.22152 - 4.05634I$
$b = -0.64933 - 2.04193I$		
$u = 0.44799 - 1.47346I$		
$a = -0.297719 + 1.096590I$	$-9.26140 - 7.75496I$	$-5.22152 + 4.05634I$
$b = -0.64933 + 2.04193I$		
$u = -0.410452 + 0.057203I$		
$a = 0.42747 + 1.47076I$	$-2.58763 - 0.76692I$	$-4.26714 + 7.68799I$
$b = -1.185890 - 0.012590I$		
$u = -0.410452 - 0.057203I$		
$a = 0.42747 - 1.47076I$	$-2.58763 + 0.76692I$	$-4.26714 - 7.68799I$
$b = -1.185890 + 0.012590I$		
$u = 1.73221$		
$a = 0.291826$	-0.749607	13.6670
$b = 0.419942$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{20} - 3u^{19} + \dots - 8u + 3)(u^{95} + 8u^{94} + \dots - 1011270u - 170729)$
c_2	$(u^{20} - 6u^{18} + \dots + 7u + 1)(u^{95} + 3u^{94} + \dots + 6615u - 451)$
c_3	$(u^{20} + 3u^{19} + \dots + 10u + 1)(u^{95} + 6u^{94} + \dots + 2006u + 1867)$
c_4	$(u^{20} - 4u^{19} + \dots - 8u + 1)(u^{95} + 5u^{94} + \dots + 290u + 31)$
c_5	$(u^{20} + 2u^{19} + \dots + 4u - 1)(u^{95} - u^{94} + \dots - 4620u - 413)$
c_6	$(u^{20} - 3u^{19} + \dots - 24u - 11)$ $\cdot (u^{95} - 2u^{94} + \dots - 4406294u - 7707151)$
c_7	$(u^{20} - u^{19} + \dots - 4u - 1)(u^{95} + 35u^{93} + \dots - 304u - 31)$
c_8	$(u^{20} + 4u^{19} + \dots + 8u + 1)(u^{95} + 5u^{94} + \dots + 290u + 31)$
c_9	$(u^{20} + 6u^{19} + \dots - u - 1)(u^{95} + u^{94} + \dots - 13u - 1)$
c_{10}	$(u^{20} + u^{19} + \dots + 8u - 1)(u^{95} - 23u^{93} + \dots - 51128u + 2537)$
c_{11}	$(u^{20} + u^{19} + \dots + 4u - 1)(u^{95} + 35u^{93} + \dots - 304u - 31)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{20} - 7y^{19} + \dots + 74y + 9)$ $\cdot (y^{95} + 32y^{94} + \dots - 975808808676y - 29148391441)$
c_2	$(y^{20} - 12y^{19} + \dots - 21y + 1)$ $\cdot (y^{95} - 33y^{94} + \dots + 5314083y - 203401)$
c_3	$(y^{20} - 9y^{19} + \dots - 30y + 1)$ $\cdot (y^{95} - 34y^{94} + \dots + 99285844y - 3485689)$
c_4, c_8	$(y^{20} - 20y^{19} + \dots - 16y + 1)(y^{95} - 89y^{94} + \dots - 142386y - 961)$
c_5	$(y^{20} + 4y^{19} + \dots + 8y + 1)(y^{95} + 23y^{94} + \dots - 4607694y - 170569)$
c_6	$(y^{20} - 13y^{19} + \dots - 906y + 121)$ $\cdot (y^{95} - 58y^{94} + \dots + 1536043799096208y - 59400176536801)$
c_7, c_{11}	$(y^{20} + 11y^{19} + \dots - 40y^2 + 1)(y^{95} + 70y^{94} + \dots + 1958y - 961)$
c_9	$(y^{20} + 182y^{18} + \dots + 7y + 1)(y^{95} + 11y^{94} + \dots - 61y - 1)$
c_{10}	$(y^{20} - 9y^{19} + \dots - 30y + 1)$ $\cdot (y^{95} - 46y^{94} + \dots + 1721708004y - 6436369)$