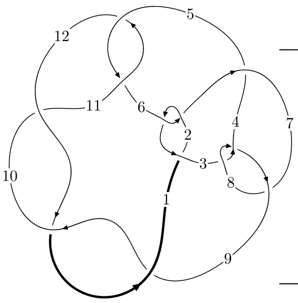
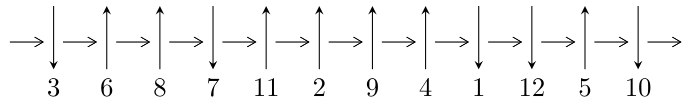
$12a_{0272}$ ($K12a_{0272}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

Ideals for irreducible components[2]of $X_{\mathbf{par}}$

$$I^u_1 = \langle -8.81378 \times 10^{102} u^{92} + 2.11238 \times 10^{104} u^{91} + \cdots + 4.20120 \times 10^{103} b + 1.23437 \times 10^{104},$$
$$1.35442 \times 10^{104} u^{92} - 3.05756 \times 10^{105} u^{91} + \cdots + 4.20120 \times 10^{103} a - 2.46878 \times 10^{104},\ u^{93} - 23u^{92} + \cdots - 7u$$
$$I^u_2 = \langle 33a^3u^2 - 12a^3u + 42a^2u^2 + 28a^3 - 76a^2u + 165u^2a + 66a^2 - 60au + 5u^2 + 167b + 140a - 17u - 16,$$
$$2a^3u^2 + a^4 - 2a^3u + 6a^2u^2 + 4a^3 - 3a^2u + 8u^2a + 11a^2 - 4au + 3u^2 + 14a - u + 7,\ u^3 - u^2 + 2u - 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 105 representations.

[1]The 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`).

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

I. $\boldsymbol{I_1^u = \langle -8.81 \times 10^{102} u^{92} + 2.11 \times 10^{104} u^{91} + \cdots + 4.20 \times 10^{103} b + 1.23 \times 10^{104},\ 1.35 \times 10^{104} u^{92} - 3.06 \times 10^{105} u^{91} + \cdots + 4.20 \times 10^{103} a - 2.47 \times 10^{104},\ u^{93} - 23u^{92} + \cdots - 7u + 1 \rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -3.22390u^{92} + 72.7783u^{91} + \cdots - 42.3730u + 5.87637 \\ 0.209792u^{92} - 5.02805u^{91} + \cdots + 6.01494u - 2.93813 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 2.05019u^{92} - 47.0547u^{91} + \cdots + 56.3868u - 6.05494 \\ -1.50087u^{92} + 34.1389u^{91} + \cdots - 17.7924u + 4.81082 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -1.01350u^{92} + 22.8011u^{91} + \cdots + 14.3088u + 1.73659 \\ -0.292693u^{92} + 6.74378u^{91} + \cdots - 6.73428u + 0.555834 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1.18734u^{92} - 26.3170u^{91} + \cdots - 26.1202u + 1.75144 \\ 0.257687u^{92} - 5.95007u^{91} + \cdots + 5.55854u - 0.852157 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 3.55106u^{92} - 81.1936u^{91} + \cdots + 74.1793u - 10.8658 \\ -1.50087u^{92} + 34.1389u^{91} + \cdots - 17.7924u + 4.81082 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0.858858u^{92} - 19.5520u^{91} + \cdots + 20.0064u - 4.50303 \\ -0.127780u^{92} + 2.91765u^{91} + \cdots - 0.756148u + 0.591562 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 0.591562u^{92} - 13.4781u^{91} + \cdots + 17.7344u - 3.38478 \\ -0.180416u^{92} + 4.10757u^{91} + \cdots - 1.20608u + 0.731078 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4.26586u^{92} - 96.9345u^{91} + \cdots + 57.5150u - 12.9725$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{93} + 43u^{92} + \cdots - 3575u - 625$
c_2, c_6	$u^{93} - u^{92} + \cdots - 35u - 25$
c_3, c_8	$u^{93} - u^{92} + \cdots + u - 1$
c_4	$u^{93} - 3u^{92} + \cdots + 22579u - 21009$
c_5, c_{11}	$u^{93} + u^{92} + \cdots - u - 1$
c_7	$u^{93} - 47u^{92} + \cdots + 7u - 1$
c_9, c_{10}, c_{12}	$u^{93} + 23u^{92} + \cdots - 7u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{93} + 27y^{92} + \cdots + 30773125y - 390625$
c_2, c_6	$y^{93} + 43y^{92} + \cdots - 3575y - 625$
c_3, c_8	$y^{93} - 47y^{92} + \cdots + 7y - 1$
c_4	$y^{93} + 37y^{92} + \cdots + 556241131y - 441378081$
c_5, c_{11}	$y^{93} + 23y^{92} + \cdots - 7y - 1$
c_7	$y^{93} + 5y^{92} + \cdots + 35y - 1$
c_9, c_{10}, c_{12}	$y^{93} + 99y^{92} + \cdots + 49y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.975112 + 0.011658I$ $a = -0.457990 + 1.069300I$ $b = -1.054870 + 0.383779I$	$-0.322073 - 1.346820I$	0
$u = 0.975112 - 0.011658I$ $a = -0.457990 - 1.069300I$ $b = -1.054870 - 0.383779I$	$-0.322073 + 1.346820I$	0
$u = 0.923458 + 0.251430I$ $a = 0.274705 - 1.386400I$ $b = 0.307591 - 0.611476I$	$-3.59253 + 1.33736I$	0
$u = 0.923458 - 0.251430I$ $a = 0.274705 + 1.386400I$ $b = 0.307591 + 0.611476I$	$-3.59253 - 1.33736I$	0
$u = 0.142931 + 0.932629I$ $a = -0.572352 + 0.952292I$ $b = 1.015810 + 0.286301I$	$3.38472 + 0.29711I$	0
$u = 0.142931 - 0.932629I$ $a = -0.572352 - 0.952292I$ $b = 1.015810 - 0.286301I$	$3.38472 - 0.29711I$	0
$u = 1.045630 + 0.237932I$ $a = 0.603596 + 1.269130I$ $b = 1.102820 + 0.513061I$	$-1.31714 + 5.79170I$	0
$u = 1.045630 - 0.237932I$ $a = 0.603596 - 1.269130I$ $b = 1.102820 - 0.513061I$	$-1.31714 - 5.79170I$	0
$u = 0.574887 + 0.725329I$ $a = -0.462784 - 0.619036I$ $b = -0.249615 - 0.631819I$	$-0.08874 - 2.35747I$	0
$u = 0.574887 - 0.725329I$ $a = -0.462784 + 0.619036I$ $b = -0.249615 + 0.631819I$	$-0.08874 + 2.35747I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.677583 + 0.571350I$ $a = 0.84533 - 1.31354I$ $b = 0.647720 - 0.676775I$	$-3.74624 - 4.86364I$	0
$u = 0.677583 - 0.571350I$ $a = 0.84533 + 1.31354I$ $b = 0.647720 + 0.676775I$	$-3.74624 + 4.86364I$	0
$u = 0.813255 + 0.766947I$ $a = 0.763480 + 0.944934I$ $b = 0.310400 + 0.768827I$	$-2.07581 - 7.04640I$	0
$u = 0.813255 - 0.766947I$ $a = 0.763480 - 0.944934I$ $b = 0.310400 - 0.768827I$	$-2.07581 + 7.04640I$	0
$u = 0.704203 + 0.874011I$ $a = 0.37398 + 1.61333I$ $b = -1.113560 + 0.500754I$	$2.35859 - 6.76923I$	0
$u = 0.704203 - 0.874011I$ $a = 0.37398 - 1.61333I$ $b = -1.113560 - 0.500754I$	$2.35859 + 6.76923I$	0
$u = 0.704096 + 0.897518I$ $a = 0.0261087 - 0.0707790I$ $b = -1.124370 - 0.258362I$	$2.37106 - 4.17517I$	0
$u = 0.704096 - 0.897518I$ $a = 0.0261087 + 0.0707790I$ $b = -1.124370 + 0.258362I$	$2.37106 + 4.17517I$	0
$u = 0.709208 + 0.406138I$ $a = 1.403280 - 0.030207I$ $b = 0.502509 + 0.546608I$	$-4.22922 + 0.22021I$	0
$u = 0.709208 - 0.406138I$ $a = 1.403280 + 0.030207I$ $b = 0.502509 - 0.546608I$	$-4.22922 - 0.22021I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.879776 + 0.812261I$ $a = -0.12067 - 1.90804I$ $b = 1.137730 - 0.559122I$	$0.36419 - 12.04290I$	0
$u = 0.879776 - 0.812261I$ $a = -0.12067 + 1.90804I$ $b = 1.137730 + 0.559122I$	$0.36419 + 12.04290I$	0
$u = -0.235370 + 0.753664I$ $a = -0.270095 - 0.119388I$ $b = -1.137830 + 0.440841I$	$4.28586 - 5.33657I$	0
$u = -0.235370 - 0.753664I$ $a = -0.270095 + 0.119388I$ $b = -1.137830 - 0.440841I$	$4.28586 + 5.33657I$	0
$u = 0.581872 + 0.533061I$ $a = -1.56364 - 2.16916I$ $b = 1.022280 - 0.523078I$	$-2.70580 - 4.13046I$	0
$u = 0.581872 - 0.533061I$ $a = -1.56364 + 2.16916I$ $b = 1.022280 + 0.523078I$	$-2.70580 + 4.13046I$	0
$u = 0.591243 + 0.477280I$ $a = 0.31040 + 1.91040I$ $b = 0.946859 + 0.616173I$	$-2.86958 + 0.13162I$	0
$u = 0.591243 - 0.477280I$ $a = 0.31040 - 1.91040I$ $b = 0.946859 - 0.616173I$	$-2.86958 - 0.13162I$	0
$u = 0.119268 + 1.244880I$ $a = 0.005877 - 1.232340I$ $b = -0.538447 - 0.103922I$	$1.50783 - 2.63535I$	0
$u = 0.119268 - 1.244880I$ $a = 0.005877 + 1.232340I$ $b = -0.538447 + 0.103922I$	$1.50783 + 2.63535I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.335786 + 1.234390I$ $a = 0.144944 + 1.027360I$ $b = -0.958483 + 0.381269I$	$3.04435 - 5.41546I$	0
$u = 0.335786 - 1.234390I$ $a = 0.144944 - 1.027360I$ $b = -0.958483 - 0.381269I$	$3.04435 + 5.41546I$	0
$u = 0.669038 + 0.258538I$ $a = -0.380219 + 0.996972I$ $b = -0.667882 + 0.427816I$	$-1.37927 - 1.72782I$	0
$u = 0.669038 - 0.258538I$ $a = -0.380219 - 0.996972I$ $b = -0.667882 - 0.427816I$	$-1.37927 + 1.72782I$	0
$u = 0.467593 + 1.205990I$ $a = 0.025373 + 0.655972I$ $b = 1.063500 + 0.423253I$	$3.13855 + 0.43142I$	0
$u = 0.467593 - 1.205990I$ $a = 0.025373 - 0.655972I$ $b = 1.063500 - 0.423253I$	$3.13855 - 0.43142I$	0
$u = 0.309953 + 1.348600I$ $a = 0.016720 - 1.158940I$ $b = 0.446130 - 0.271365I$	$1.22782 - 3.00319I$	0
$u = 0.309953 - 1.348600I$ $a = 0.016720 + 1.158940I$ $b = 0.446130 + 0.271365I$	$1.22782 + 3.00319I$	0
$u = -0.347453 + 0.499708I$ $a = 0.777787 + 0.601514I$ $b = 1.147950 - 0.329947I$	$4.27803 - 0.04959I$	0
$u = -0.347453 - 0.499708I$ $a = 0.777787 - 0.601514I$ $b = 1.147950 + 0.329947I$	$4.27803 + 0.04959I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.342360 + 0.490258I$ $a = -0.18524 + 2.56638I$ $b = 1.139310 + 0.443856I$	$4.26723 + 2.60062I$	0
$u = -0.342360 - 0.490258I$ $a = -0.18524 - 2.56638I$ $b = 1.139310 - 0.443856I$	$4.26723 - 2.60062I$	0
$u = -0.469234 + 0.329281I$ $a = -0.55680 - 2.85165I$ $b = -1.149110 - 0.527482I$	$2.92042 + 8.02959I$	0
$u = -0.469234 - 0.329281I$ $a = -0.55680 + 2.85165I$ $b = -1.149110 + 0.527482I$	$2.92042 - 8.02959I$	0
$u = 0.17853 + 1.42228I$ $a = 0.140624 - 0.460282I$ $b = 0.080958 + 0.460222I$	$1.54039 - 2.97863I$	0
$u = 0.17853 - 1.42228I$ $a = 0.140624 + 0.460282I$ $b = 0.080958 - 0.460222I$	$1.54039 + 2.97863I$	0
$u = -0.122925 + 0.537777I$ $a = 0.917954 - 0.812454I$ $b = 0.001615 - 0.645545I$	$1.17563 - 1.37957I$	0
$u = -0.122925 - 0.537777I$ $a = 0.917954 + 0.812454I$ $b = 0.001615 + 0.645545I$	$1.17563 + 1.37957I$	0
$u = 0.03103 + 1.45544I$ $a = -0.091290 - 1.200980I$ $b = -0.756943 - 0.749780I$	$3.42247 + 1.92586I$	0
$u = 0.03103 - 1.45544I$ $a = -0.091290 + 1.200980I$ $b = -0.756943 + 0.749780I$	$3.42247 - 1.92586I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.08873 + 1.46640I$ $a = -0.213185 + 1.033730I$ $b = -0.875447 + 0.708452I$	$3.77833 - 3.56285I$	0
$u = 0.08873 - 1.46640I$ $a = -0.213185 - 1.033730I$ $b = -0.875447 - 0.708452I$	$3.77833 + 3.56285I$	0
$u = -0.10165 + 1.48145I$ $a = -0.668696 + 0.451469I$ $b = -0.280179 + 0.866951I$	$6.26975 + 4.86358I$	0
$u = -0.10165 - 1.48145I$ $a = -0.668696 - 0.451469I$ $b = -0.280179 - 0.866951I$	$6.26975 - 4.86358I$	0
$u = 0.05789 + 1.48627I$ $a = 1.77808 - 0.85220I$ $b = -1.112300 - 0.441488I$	$4.33913 + 0.66006I$	0
$u = 0.05789 - 1.48627I$ $a = 1.77808 + 0.85220I$ $b = -1.112300 + 0.441488I$	$4.33913 - 0.66006I$	0
$u = -0.14250 + 1.48556I$ $a = 0.83776 - 1.67548I$ $b = -1.179860 - 0.579243I$	$8.97443 + 10.18300I$	0
$u = -0.14250 - 1.48556I$ $a = 0.83776 + 1.67548I$ $b = -1.179860 + 0.579243I$	$8.97443 - 10.18300I$	0
$u = -0.363573 + 0.318934I$ $a = -1.48496 + 1.45663I$ $b = -0.229089 + 0.738206I$	$0.24940 + 3.26137I$	0
$u = -0.363573 - 0.318934I$ $a = -1.48496 - 1.45663I$ $b = -0.229089 - 0.738206I$	$0.24940 - 3.26137I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.17307 + 1.50827I$ $a = 0.176430 + 1.102160I$ $b = 0.898359 + 0.708905I$	$3.66403 - 2.59876I$	0
$u = 0.17307 - 1.50827I$ $a = 0.176430 - 1.102160I$ $b = 0.898359 - 0.708905I$	$3.66403 + 2.59876I$	0
$u = -0.02047 + 1.52637I$ $a = 0.403798 - 0.365537I$ $b = 0.162944 - 0.839736I$	$8.05299 - 0.97235I$	0
$u = -0.02047 - 1.52637I$ $a = 0.403798 + 0.365537I$ $b = 0.162944 + 0.839736I$	$8.05299 + 0.97235I$	0
$u = -0.07851 + 1.53623I$ $a = -0.95802 + 1.33694I$ $b = 1.195310 + 0.524633I$	$11.13210 + 4.00565I$	0
$u = -0.07851 - 1.53623I$ $a = -0.95802 - 1.33694I$ $b = 1.195310 - 0.524633I$	$11.13210 - 4.00565I$	0
$u = -0.07562 + 1.54400I$ $a = -0.655071 + 0.225073I$ $b = 1.237230 - 0.251218I$	$11.23360 + 1.35764I$	0
$u = -0.07562 - 1.54400I$ $a = -0.655071 - 0.225073I$ $b = 1.237230 + 0.251218I$	$11.23360 - 1.35764I$	0
$u = 0.17901 + 1.53877I$ $a = -1.67539 - 0.97138I$ $b = 1.114880 - 0.463083I$	$4.18101 - 6.89019I$	0
$u = 0.17901 - 1.53877I$ $a = -1.67539 + 0.97138I$ $b = 1.114880 + 0.463083I$	$4.18101 + 6.89019I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.21412+1.53871I$		
$a=$	$0.169726-1.160300I$	$3.18025-8.12130I$	0
$b=$	$0.736350-0.761337I$		
$u=$	$0.21412-1.53871I$		
$a=$	$0.169726+1.160300I$	$3.18025+8.12130I$	0
$b=$	$0.736350+0.761337I$		
$u=$	$0.00737+1.59654I$		
$a=$	$0.815596+0.142705I$	$12.40570-4.93038I$	0
$b=$	$-1.231300+0.340881I$		
$u=$	$0.00737-1.59654I$		
$a=$	$0.815596-0.142705I$	$12.40570+4.93038I$	0
$b=$	$-1.231300-0.340881I$		
$u=$	$0.20385+1.60931I$		
$a=$	$-0.382492-0.401970I$	$7.77433-5.40679I$	0
$b=$	$-0.192162-0.840420I$		
$u=$	$0.20385-1.60931I$		
$a=$	$-0.382492+0.401970I$	$7.77433+5.40679I$	0
$b=$	$-0.192162+0.840420I$		
$u=$	$0.14080+1.64135I$		
$a=$	$-0.822689+0.185322I$	$12.24510-1.56912I$	0
$b=$	$1.230600+0.321573I$		
$u=$	$0.14080-1.64135I$		
$a=$	$-0.822689-0.185322I$	$12.24510+1.56912I$	0
$b=$	$1.230600-0.321573I$		
$u=$	$0.27977+1.62561I$		
$a=$	$0.617487+0.514179I$	$5.79383-11.22630I$	0
$b=$	$0.299812+0.868670I$		
$u=$	$0.27977-1.62561I$		
$a=$	$0.617487-0.514179I$	$5.79383+11.22630I$	0
$b=$	$0.299812-0.868670I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.220768 + 0.263420I$ $a = 4.77821 + 0.16986I$ $b = -0.940242 - 0.399619I$	$-1.63911 + 1.59917I$	$5.10383 + 0.18940I$
$u = 0.220768 - 0.263420I$ $a = 4.77821 - 0.16986I$ $b = -0.940242 + 0.399619I$	$-1.63911 - 1.59917I$	$5.10383 - 0.18940I$
$u = 0.23562 + 1.64814I$ $a = 0.87152 + 1.29779I$ $b = -1.189830 + 0.537656I$	$10.7483 - 10.4540I$	0
$u = 0.23562 - 1.64814I$ $a = 0.87152 - 1.29779I$ $b = -1.189830 - 0.537656I$	$10.7483 + 10.4540I$	0
$u = 0.22917 + 1.65214I$ $a = 0.637776 + 0.146711I$ $b = -1.236400 - 0.233131I$	$10.86220 - 7.81939I$	0
$u = 0.22917 - 1.65214I$ $a = 0.637776 - 0.146711I$ $b = -1.236400 + 0.233131I$	$10.86220 + 7.81939I$	0
$u = 0.30282 + 1.64826I$ $a = -0.73101 - 1.60141I$ $b = 1.174680 - 0.587740I$	$8.4252 - 16.5880I$	0
$u = 0.30282 - 1.64826I$ $a = -0.73101 + 1.60141I$ $b = 1.174680 + 0.587740I$	$8.4252 + 16.5880I$	0
$u = 0.202817 + 0.113256I$ $a = 0.287615 - 1.319100I$ $b = -0.835540 + 0.577788I$	$-1.68339 - 2.29491I$	$4.65059 + 5.45846I$
$u = 0.202817 - 0.113256I$ $a = 0.287615 + 1.319100I$ $b = -0.835540 - 0.577788I$	$-1.68339 + 2.29491I$	$4.65059 - 5.45846I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.161038$ $a = \quad 4.16052$ $b = \quad 0.723001$	0.958624	11.1450
$u = -0.0900715 + 0.0809425I$ $a = -3.33180 - 7.28213I$ $b = -0.731401 - 0.544627I$	$-1.85071 + 2.17154I$	$2.55551 - 3.84587I$
$u = -0.0900715 - 0.0809425I$ $a = -3.33180 + 7.28213I$ $b = -0.731401 + 0.544627I$	$-1.85071 - 2.17154I$	$2.55551 + 3.84587I$

II. $I_2^u = \langle 33a^3u^2+42a^2u^2+\cdots+140a-16,\ 2a^3u^2+6a^2u^2+\cdots+14a+7,\ u^3-u^2+2u-1\rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} a \\ -0.197605a^3u^2 - 0.251497a^2u^2 + \cdots - 0.838323a + 0.0958084 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0.0838323a^3u^2 + 0.197605a^2u^2 + \cdots + 2.65868a + 2.35329 \\ -0.251497a^3u^2 - 0.592814a^2u^2 + \cdots - 1.97605a - 1.05988 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^2 + u - 2 \\ 0.197605a^3u^2 + 0.251497a^2u^2 + \cdots + 1.83832a + 1.90419 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u^2 + u - 2 \\ 0.197605a^3u^2 + 0.251497a^2u^2 + \cdots + 1.83832a + 1.90419 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0.335329a^3u^2 + 0.790419a^2u^2 + \cdots + 4.63473a + 3.41317 \\ -0.251497a^3u^2 - 0.592814a^2u^2 + \cdots - 1.97605a - 1.05988 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -0.395210a^3u^2 - 0.502994a^2u^2 + \cdots - 2.67665a - 1.80838 \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 0 \\ 0.251497a^3u^2 + 0.592814a^2u^2 + \cdots + 1.97605a + 1.05988 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u \\ u^2 - u + 1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u^2 + 1 \\ u^2 - u + 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{168}{167}a^3u^2 - \frac{304}{167}a^3u + \frac{396}{167}a^2u^2 + \frac{264}{167}a^3 - \frac{144}{167}a^2u + \frac{840}{167}u^2a + \frac{336}{167}a^2 - \frac{184}{167}au - \frac{96}{167}u^2 + \frac{1320}{167}a + \frac{460}{167}u + \frac{40}{167}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u-1)^{12}$
c_2, c_6	$(u^2+1)^6$
c_3, c_4, c_8	$(u^4-u^2+1)^3$
c_5, c_{11}	$(u^6+u^4+2u^2+1)^2$
c_7	$(u^2+u+1)^6$
c_9, c_{10}	$(u^3-u^2+2u-1)^4$
c_{12}	$(u^3+u^2+2u+1)^4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$(y-1)^{12}$
c_2, c_6	$(y+1)^{12}$
c_3, c_4, c_8	$(y^2-y+1)^6$
c_5, c_{11}	$(y^3+y^2+2y+1)^4$
c_7	$(y^2+y+1)^6$
c_9, c_{10}, c_{12}	$(y^3+3y^2+2y-1)^4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.215080 + 1.307140I$ $a = -0.706350 - 0.733710I$ $b = -0.866025 - 0.500000I$	$1.37919 - 0.79824I$	$1.50976 - 0.48465I$
$u = 0.215080 + 1.307140I$ $a = 0.583789 - 0.521428I$ $b = 0.866025 - 0.500000I$	$1.37919 - 4.85801I$	$1.50976 + 6.44355I$
$u = 0.215080 + 1.307140I$ $a = -0.70635 + 1.26629I$ $b = 0.866025 + 0.500000I$	$1.37919 - 0.79824I$	$1.50976 - 0.48465I$
$u = 0.215080 + 1.307140I$ $a = 0.58379 + 1.47857I$ $b = -0.866025 + 0.500000I$	$1.37919 - 4.85801I$	$1.50976 + 6.44355I$
$u = 0.215080 - 1.307140I$ $a = -0.706350 + 0.733710I$ $b = -0.866025 + 0.500000I$	$1.37919 + 0.79824I$	$1.50976 + 0.48465I$
$u = 0.215080 - 1.307140I$ $a = 0.583789 + 0.521428I$ $b = 0.866025 + 0.500000I$	$1.37919 + 4.85801I$	$1.50976 - 6.44355I$
$u = 0.215080 - 1.307140I$ $a = -0.70635 - 1.26629I$ $b = 0.866025 - 0.500000I$	$1.37919 + 0.79824I$	$1.50976 + 0.48465I$
$u = 0.215080 - 1.307140I$ $a = 0.58379 - 1.47857I$ $b = -0.866025 - 0.500000I$	$1.37919 + 4.85801I$	$1.50976 - 6.44355I$
$u = 0.569840$ $a = -0.877439 + 0.519769I$ $b = 0.866025 - 0.500000I$	$-2.75839 - 2.02988I$	$-5.01951 + 3.46410I$
$u = 0.569840$ $a = -0.877439 - 0.519769I$ $b = 0.866025 + 0.500000I$	$-2.75839 + 2.02988I$	$-5.01951 - 3.46410I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.569840$ $a = -0.87744 + 2.51977I$ $b = -0.866025 + 0.500000I$	$-2.75839 - 2.02988I$	$-5.01951 + 3.46410I$
$u = 0.569840$ $a = -0.87744 - 2.51977I$ $b = -0.866025 - 0.500000I$	$-2.75839 + 2.02988I$	$-5.01951 - 3.46410I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^{12})(u^{93}+43u^{92}+\cdots-3575u-625)$
c_2, c_6	$((u^2+1)^6)(u^{93}-u^{92}+\cdots-35u-25)$
c_3, c_8	$((u^4-u^2+1)^3)(u^{93}-u^{92}+\cdots+u-1)$
c_4	$((u^4-u^2+1)^3)(u^{93}-3u^{92}+\cdots+22579u-21009)$
c_5, c_{11}	$((u^6+u^4+2u^2+1)^2)(u^{93}+u^{92}+\cdots-u-1)$
c_7	$((u^2+u+1)^6)(u^{93}-47u^{92}+\cdots+7u-1)$
c_9, c_{10}	$((u^3-u^2+2u-1)^4)(u^{93}+23u^{92}+\cdots-7u-1)$
c_{12}	$((u^3+u^2+2u+1)^4)(u^{93}+23u^{92}+\cdots-7u-1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^{12})(y^{93}+27y^{92}+\cdots+3.07731\times10^{7}y-390625)$
c_2, c_6	$((y+1)^{12})(y^{93}+43y^{92}+\cdots-3575y-625)$
c_3, c_8	$((y^2-y+1)^{6})(y^{93}-47y^{92}+\cdots+7y-1)$
c_4	$((y^2-y+1)^{6})(y^{93}+37y^{92}+\cdots+5.56241\times10^{8}y-4.41378\times10^{8})$
c_5, c_{11}	$((y^3+y^2+2y+1)^{4})(y^{93}+23y^{92}+\cdots-7y-1)$
c_7	$((y^2+y+1)^{6})(y^{93}+5y^{92}+\cdots+35y-1)$
c_9, c_{10}, c_{12}	$((y^3+3y^2+2y-1)^{4})(y^{93}+99y^{92}+\cdots+49y-1)$