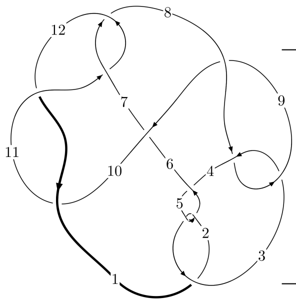
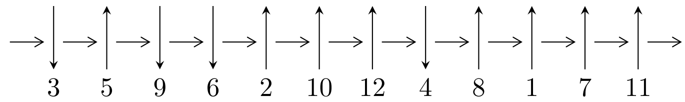
$12a_{0175}$ ($K12a_{0175}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -3.02409 \times 10^{165} u^{96} + 3.56484 \times 10^{165} u^{95} + \cdots + 6.58858 \times 10^{165} b - 3.79296 \times 10^{167},$$
$$1.29894 \times 10^{166} u^{96} + 1.51856 \times 10^{166} u^{95} + \cdots + 1.31772 \times 10^{166} a - 1.20377 \times 10^{168},\ u^{97} + u^{96} + \cdots - 96u$$

$$I_1^v = \langle a,\ 2v^5 - 3v^4 - 3v^3 - v^2 + 5b + 9v - 1,\ v^6 - v^5 - v^4 + 3v^2 - 2v + 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 103 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. $\boldsymbol{I^u_1 = \langle -3.02 \times 10^{165} u^{96} + 3.56 \times 10^{165} u^{95} + \cdots + 6.59 \times 10^{165} b - 3.79 \times 10^{167},\ 1.30 \times 10^{166} u^{96} + 1.52 \times 10^{166} u^{95} + \cdots + 1.32 \times 10^{166} a - 1.20 \times 10^{168},\ u^{97} + u^{96} + \cdots - 96u - 64 \rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -0.985751u^{96} - 1.15242u^{95} + \cdots + 112.034u + 91.3525 \\ 0.458990u^{96} - 0.541064u^{95} + \cdots - 5.09259u + 57.5687 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -0.884894u^{96} - 1.06215u^{95} + \cdots + 101.503u + 88.1350 \\ -0.217189u^{96} + 0.134940u^{95} + \cdots + 16.9827u - 39.4811 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -0.884894u^{96} - 1.06215u^{95} + \cdots + 101.503u + 88.1350 \\ 0.991372u^{96} - 0.0100898u^{95} + \cdots - 90.6325u + 28.1367 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -1.10208u^{96} - 0.927210u^{95} + \cdots + 118.486u + 48.6539 \\ -0.217189u^{96} + 0.134940u^{95} + \cdots + 16.9827u - 39.4811 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -0.396152u^{96} - 0.974194u^{95} + \cdots + 50.3059u + 89.0931 \\ 0.711716u^{96} - 0.518934u^{95} + \cdots - 49.1432u + 65.3365 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -0.947269u^{96} - 0.890091u^{95} + \cdots + 88.6821u + 49.4582 \\ 0.0101335u^{96} + 0.113593u^{95} + \cdots - 6.46893u - 26.8412 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -0.764380u^{96} + 0.559446u^{95} + \cdots + 53.8052u - 63.9580 \\ -1.20457u^{96} + 0.524889u^{95} + \cdots + 75.8592u - 71.8245 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4.50422u^{96} + 1.68955u^{95} + \cdots - 477.136u - 1.66216$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{97} + 34u^{96} + \cdots + 11u - 1$
c_2, c_5	$u^{97} + 4u^{96} + \cdots + 3u + 1$
c_3, c_8	$u^{97} + u^{96} + \cdots - 96u - 64$
c_6	$u^{97} + 3u^{96} + \cdots - 1136u - 1297$
c_7, c_{11}	$u^{97} - 3u^{96} + \cdots + 4u - 1$
c_9	$u^{97} - 35u^{96} + \cdots - 52224u + 4096$
c_{10}, c_{12}	$u^{97} - 31u^{96} + \cdots - 14u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{97} + 62y^{96} + \cdots + 555y - 1$
c_2, c_5	$y^{97} + 34y^{96} + \cdots + 11y - 1$
c_3, c_8	$y^{97} + 35y^{96} + \cdots - 52224y - 4096$
c_6	$y^{97} + 13y^{96} + \cdots - 65476470y - 1682209$
c_7, c_{11}	$y^{97} - 31y^{96} + \cdots - 14y - 1$
c_9	$y^{97} + 43y^{96} + \cdots - 200278016y - 16777216$
c_{10}, c_{12}	$y^{97} + 73y^{96} + \cdots + 50y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.559211 + 0.833102I$ $a = -2.93598 + 0.85719I$ $b = 0.640213 + 0.986388I$	$-3.66440 + 1.12900I$	0
$u = -0.559211 - 0.833102I$ $a = -2.93598 - 0.85719I$ $b = 0.640213 - 0.986388I$	$-3.66440 - 1.12900I$	0
$u = 0.921624 + 0.348229I$ $a = 0.705582 + 0.299295I$ $b = -0.703026 + 0.720139I$	$3.36866 + 0.02446I$	0
$u = 0.921624 - 0.348229I$ $a = 0.705582 - 0.299295I$ $b = -0.703026 - 0.720139I$	$3.36866 - 0.02446I$	0
$u = 0.103697 + 0.973816I$ $a = 0.806800 + 0.028255I$ $b = -0.622905 + 0.069810I$	$1.22652 + 2.27353I$	0
$u = 0.103697 - 0.973816I$ $a = 0.806800 - 0.028255I$ $b = -0.622905 - 0.069810I$	$1.22652 - 2.27353I$	0
$u = 0.617672 + 0.836741I$ $a = 0.633968 - 0.472132I$ $b = -0.574678 - 1.048600I$	$-4.19841 + 2.32705I$	0
$u = 0.617672 - 0.836741I$ $a = 0.633968 + 0.472132I$ $b = -0.574678 + 1.048600I$	$-4.19841 - 2.32705I$	0
$u = 0.393076 + 0.966556I$ $a = 0.784752 + 0.104315I$ $b = -0.665790 + 0.256866I$	$3.71107 - 2.90743I$	0
$u = 0.393076 - 0.966556I$ $a = 0.784752 - 0.104315I$ $b = -0.665790 - 0.256866I$	$3.71107 + 2.90743I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.954076 + 0.047302I$ $a = 0.678888 + 0.343504I$ $b = -0.696044 + 0.825381I$	$0.64837 - 4.98811I$	0
$u = 0.954076 - 0.047302I$ $a = 0.678888 - 0.343504I$ $b = -0.696044 - 0.825381I$	$0.64837 + 4.98811I$	0
$u = -0.645300 + 0.703994I$ $a = 1.023660 - 0.910421I$ $b = -0.030603 - 0.969352I$	$-1.316410 - 0.236436I$	0
$u = -0.645300 - 0.703994I$ $a = 1.023660 + 0.910421I$ $b = -0.030603 + 0.969352I$	$-1.316410 + 0.236436I$	0
$u = -0.569710 + 0.879256I$ $a = 0.633784 + 0.481988I$ $b = -0.560621 + 1.057840I$	$-3.50660 + 3.37785I$	0
$u = -0.569710 - 0.879256I$ $a = 0.633784 - 0.481988I$ $b = -0.560621 - 1.057840I$	$-3.50660 - 3.37785I$	0
$u = 0.601512 + 0.865138I$ $a = -2.72515 - 0.88927I$ $b = 0.646669 - 0.998365I$	$-4.11264 - 7.12461I$	0
$u = 0.601512 - 0.865138I$ $a = -2.72515 + 0.88927I$ $b = 0.646669 + 0.998365I$	$-4.11264 + 7.12461I$	0
$u = -0.926244 + 0.145352I$ $a = 0.666759 + 0.369780I$ $b = -0.680149 + 0.880890I$	$0.473530 - 0.305894I$	0
$u = -0.926244 - 0.145352I$ $a = 0.666759 - 0.369780I$ $b = -0.680149 - 0.880890I$	$0.473530 + 0.305894I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.951056 + 0.474035I$ $a = 0.636506 + 0.403254I$ $b = -0.673700 + 0.969389I$	$2.60981 - 5.33424I$	0
$u = -0.951056 - 0.474035I$ $a = 0.636506 - 0.403254I$ $b = -0.673700 - 0.969389I$	$2.60981 + 5.33424I$	0
$u = -0.909599 + 0.577057I$ $a = 0.715967 - 0.254923I$ $b = -0.728203 - 0.626828I$	$-2.48877 + 0.51312I$	0
$u = -0.909599 - 0.577057I$ $a = 0.715967 + 0.254923I$ $b = -0.728203 + 0.626828I$	$-2.48877 - 0.51312I$	0
$u = -0.808800 + 0.713714I$ $a = 0.92259 - 1.12481I$ $b = 0.038627 - 1.049570I$	$-7.27155 - 4.70566I$	0
$u = -0.808800 - 0.713714I$ $a = 0.92259 + 1.12481I$ $b = 0.038627 + 1.049570I$	$-7.27155 + 4.70566I$	0
$u = 0.681205 + 0.843165I$ $a = 0.852242 + 0.924197I$ $b = -0.064983 + 1.054230I$	$-4.00994 - 2.62127I$	0
$u = 0.681205 - 0.843165I$ $a = 0.852242 - 0.924197I$ $b = -0.064983 - 1.054230I$	$-4.00994 + 2.62127I$	0
$u = 0.739984 + 0.538074I$ $a = 0.652275 - 0.428907I$ $b = -0.617449 - 0.977470I$	$-0.76408 + 3.26264I$	0
$u = 0.739984 - 0.538074I$ $a = 0.652275 + 0.428907I$ $b = -0.617449 + 0.977470I$	$-0.76408 - 3.26264I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.802343 + 0.748909I$ $a = 0.889988 + 1.090280I$ $b = 0.021091 + 1.059600I$	$-7.92238 - 1.15791I$	0
$u = 0.802343 - 0.748909I$ $a = 0.889988 - 1.090280I$ $b = 0.021091 - 1.059600I$	$-7.92238 + 1.15791I$	0
$u = -0.503977 + 0.742800I$ $a = 0.12148 + 1.78100I$ $b = 0.639777 - 0.633736I$	$-3.04156 + 2.02850I$	$4.00000 - 3.93778I$
$u = -0.503977 - 0.742800I$ $a = 0.12148 - 1.78100I$ $b = 0.639777 + 0.633736I$	$-3.04156 - 2.02850I$	$4.00000 + 3.93778I$
$u = 0.967362 + 0.550103I$ $a = 0.704293 + 0.259773I$ $b = -0.746470 + 0.647655I$	$-1.70048 + 5.14403I$	0
$u = 0.967362 - 0.550103I$ $a = 0.704293 - 0.259773I$ $b = -0.746470 - 0.647655I$	$-1.70048 - 5.14403I$	0
$u = -0.590695 + 0.945576I$ $a = 0.756916 - 0.148066I$ $b = -0.715182 - 0.368711I$	$-2.29120 + 2.48545I$	0
$u = -0.590695 - 0.945576I$ $a = 0.756916 + 0.148066I$ $b = -0.715182 + 0.368711I$	$-2.29120 - 2.48545I$	0
$u = -0.614372 + 0.936095I$ $a = 0.787074 - 0.853524I$ $b = -0.120816 - 1.078960I$	$-0.63114 + 5.15568I$	0
$u = -0.614372 - 0.936095I$ $a = 0.787074 + 0.853524I$ $b = -0.120816 + 1.078960I$	$-0.63114 - 5.15568I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.080865 + 1.133620I$ $a = -1.62986 - 1.10490I$ $b = 0.752817 + 0.826084I$	$4.36765 + 1.71081I$	0
$u = 0.080865 - 1.133620I$ $a = -1.62986 + 1.10490I$ $b = 0.752817 - 0.826084I$	$4.36765 - 1.71081I$	0
$u = 0.070502 + 0.857380I$ $a = 0.729488 + 0.578116I$ $b = -0.371245 + 1.016130I$	$-1.54806 - 5.69625I$	$5.02059 + 7.78118I$
$u = 0.070502 - 0.857380I$ $a = 0.729488 - 0.578116I$ $b = -0.371245 - 1.016130I$	$-1.54806 + 5.69625I$	$5.02059 - 7.78118I$
$u = -0.216302 + 0.821989I$ $a = 0.777283 - 0.606819I$ $b = -0.313813 - 0.989855I$	$-1.89002 + 0.62557I$	$3.27682 - 2.54234I$
$u = -0.216302 - 0.821989I$ $a = 0.777283 + 0.606819I$ $b = -0.313813 + 0.989855I$	$-1.89002 - 0.62557I$	$3.27682 + 2.54234I$
$u = 0.572877 + 1.000360I$ $a = 0.750719 + 0.135692I$ $b = -0.735264 + 0.342685I$	$-1.45728 - 8.16426I$	0
$u = 0.572877 - 1.000360I$ $a = 0.750719 - 0.135692I$ $b = -0.735264 - 0.342685I$	$-1.45728 + 8.16426I$	0
$u = 0.959758 + 0.642441I$ $a = 0.620834 - 0.418859I$ $b = -0.668914 - 1.012510I$	$-3.62554 + 4.84764I$	0
$u = 0.959758 - 0.642441I$ $a = 0.620834 + 0.418859I$ $b = -0.668914 + 1.012510I$	$-3.62554 - 4.84764I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.181422 + 1.152130I$ $a = -2.08238 - 0.57032I$ $b = 0.740928 + 0.901905I$	$4.13850 + 3.94348I$	0
$u = -0.181422 - 1.152130I$ $a = -2.08238 + 0.57032I$ $b = 0.740928 - 0.901905I$	$4.13850 - 3.94348I$	0
$u = 0.428081 + 1.088840I$ $a = -0.80049 - 1.24984I$ $b = 0.772564 + 0.710004I$	$4.18113 + 0.71587I$	0
$u = 0.428081 - 1.088840I$ $a = -0.80049 + 1.24984I$ $b = 0.772564 - 0.710004I$	$4.18113 - 0.71587I$	0
$u = -0.563061 + 1.032860I$ $a = -0.503416 + 1.194440I$ $b = 0.773133 - 0.653958I$	$1.84211 + 2.97512I$	0
$u = -0.563061 - 1.032860I$ $a = -0.503416 - 1.194440I$ $b = 0.773133 + 0.653958I$	$1.84211 - 2.97512I$	0
$u = -1.002940 + 0.626538I$ $a = 0.618218 + 0.413528I$ $b = -0.680442 + 1.010310I$	$-2.78079 - 10.59270I$	0
$u = -1.002940 - 0.626538I$ $a = 0.618218 - 0.413528I$ $b = -0.680442 - 1.010310I$	$-2.78079 + 10.59270I$	0
$u = 0.411216 + 0.705558I$ $a = 0.10856 - 2.30048I$ $b = 0.613326 + 0.678658I$	$-2.71127 + 3.87377I$	$5.00270 - 0.93534I$
$u = 0.411216 - 0.705558I$ $a = 0.10856 + 2.30048I$ $b = 0.613326 - 0.678658I$	$-2.71127 - 3.87377I$	$5.00270 + 0.93534I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.322378 + 0.730346I$ $a = 0.680499 + 0.494589I$ $b = -0.502195 + 1.006730I$	$1.62089 - 1.29744I$	$10.04280 - 2.09415I$
$u = -0.322378 - 0.730346I$ $a = 0.680499 - 0.494589I$ $b = -0.502195 - 1.006730I$	$1.62089 + 1.29744I$	$10.04280 + 2.09415I$
$u = -0.528635 + 1.079550I$ $a = -2.29831 + 0.32828I$ $b = 0.704089 + 0.988971I$	$3.33114 + 4.88044I$	0
$u = -0.528635 - 1.079550I$ $a = -2.29831 - 0.32828I$ $b = 0.704089 - 0.988971I$	$3.33114 - 4.88044I$	0
$u = 0.722689 + 0.970599I$ $a = 0.741299 + 0.921828I$ $b = -0.083570 + 1.119970I$	$-7.22715 - 4.57605I$	0
$u = 0.722689 - 0.970599I$ $a = 0.741299 - 0.921828I$ $b = -0.083570 - 1.119970I$	$-7.22715 + 4.57605I$	0
$u = -0.358259 + 0.688871I$ $a = 0.879547 - 0.142406I$ $b = -0.452675 - 0.326769I$	$0.242270 + 1.201440I$	$3.56976 - 5.11662I$
$u = -0.358259 - 0.688871I$ $a = 0.879547 + 0.142406I$ $b = -0.452675 + 0.326769I$	$0.242270 - 1.201440I$	$3.56976 + 5.11662I$
$u = -0.709964 + 0.998104I$ $a = 0.727209 - 0.906231I$ $b = -0.095370 - 1.127510I$	$-6.38097 + 10.41820I$	0
$u = -0.709964 - 0.998104I$ $a = 0.727209 + 0.906231I$ $b = -0.095370 + 1.127510I$	$-6.38097 - 10.41820I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.638479 + 1.052860I$ $a = -2.22261 - 0.60109I$ $b = 0.692459 - 1.015440I$	$0.75759 - 8.53408I$	0
$u = 0.638479 - 1.052860I$ $a = -2.22261 + 0.60109I$ $b = 0.692459 + 1.015440I$	$0.75759 + 8.53408I$	0
$u = -0.128439 + 1.243580I$ $a = -1.41997 + 0.92023I$ $b = 0.789225 - 0.821137I$	$5.72877 + 3.22175I$	0
$u = -0.128439 - 1.243580I$ $a = -1.41997 - 0.92023I$ $b = 0.789225 + 0.821137I$	$5.72877 - 3.22175I$	0
$u = 0.045313 + 1.258340I$ $a = -1.69439 + 0.69129I$ $b = 0.779135 - 0.871630I$	$9.43059 - 2.92424I$	0
$u = 0.045313 - 1.258340I$ $a = -1.69439 - 0.69129I$ $b = 0.779135 + 0.871630I$	$9.43059 + 2.92424I$	0
$u = 0.211932 + 1.248480I$ $a = -1.90337 + 0.41008I$ $b = 0.764919 - 0.916036I$	$5.44080 - 9.05611I$	0
$u = 0.211932 - 1.248480I$ $a = -1.90337 - 0.41008I$ $b = 0.764919 + 0.916036I$	$5.44080 + 9.05611I$	0
$u = 0.605096 + 1.135060I$ $a = -0.565397 - 1.012220I$ $b = 0.815794 + 0.657405I$	$5.78450 - 5.48770I$	0
$u = 0.605096 - 1.135060I$ $a = -0.565397 + 1.012220I$ $b = 0.815794 - 0.657405I$	$5.78450 + 5.48770I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.701626 + 1.089850I$ $a = -0.417547 + 0.958298I$ $b = 0.819456 - 0.616638I$	$-0.89248 + 5.41548I$	0
$u = -0.701626 - 1.089850I$ $a = -0.417547 - 0.958298I$ $b = 0.819456 + 0.616638I$	$-0.89248 - 5.41548I$	0
$u = 0.587493 + 0.354318I$ $a = 1.107100 - 0.364526I$ $b = 0.334542 + 0.368918I$	$-2.95310 + 3.72297I$	$0.94420 - 2.07309I$
$u = 0.587493 - 0.354318I$ $a = 1.107100 + 0.364526I$ $b = 0.334542 - 0.368918I$	$-2.95310 - 3.72297I$	$0.94420 + 2.07309I$
$u = -0.669813 + 1.133570I$ $a = -2.03613 + 0.55346I$ $b = 0.711185 + 1.026810I$	$4.66603 + 11.22230I$	0
$u = -0.669813 - 1.133570I$ $a = -2.03613 - 0.55346I$ $b = 0.711185 - 1.026810I$	$4.66603 - 11.22230I$	0
$u = 0.748378 + 1.095500I$ $a = -1.99348 - 0.72388I$ $b = 0.698362 - 1.044580I$	$-2.18107 - 11.11030I$	0
$u = 0.748378 - 1.095500I$ $a = -1.99348 + 0.72388I$ $b = 0.698362 + 1.044580I$	$-2.18107 + 11.11030I$	0
$u = 0.711168 + 1.121910I$ $a = -0.443302 - 0.920203I$ $b = 0.831954 + 0.620163I$	$0.09597 - 11.25780I$	0
$u = 0.711168 - 1.121910I$ $a = -0.443302 + 0.920203I$ $b = 0.831954 - 0.620163I$	$0.09597 + 11.25780I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.536075 + 0.400740I$ $a = 1.39980 + 0.27771I$ $b = 0.260700 - 0.482970I$	$-3.25787 + 1.87409I$	$-0.41579 - 4.30108I$
$u = -0.536075 - 0.400740I$ $a = 1.39980 - 0.27771I$ $b = 0.260700 + 0.482970I$	$-3.25787 - 1.87409I$	$-0.41579 + 4.30108I$
$u = -0.757737 + 1.120540I$ $a = -1.94603 + 0.70259I$ $b = 0.704135 + 1.047940I$	$-1.1974 + 17.0067I$	0
$u = -0.757737 - 1.120540I$ $a = -1.94603 - 0.70259I$ $b = 0.704135 - 1.047940I$	$-1.1974 - 17.0067I$	0
$u = -0.548785 + 0.324950I$ $a = 0.777437 - 0.349360I$ $b = -0.540827 - 0.732581I$	$0.11105 + 1.45554I$	$-0.54843 - 3.22563I$
$u = -0.548785 - 0.324950I$ $a = 0.777437 + 0.349360I$ $b = -0.540827 + 0.732581I$	$0.11105 - 1.45554I$	$-0.54843 + 3.22563I$
$u = 0.456001$ $a = 0.952554$ $b = 0.199661$	1.36800	6.81850

II. $\boldsymbol{I_1^v = \langle a,\ 2v^5 - 3v^4 - 3v^3 - v^2 + 5b + 9v - 1,\ v^6 - v^5 - v^4 + 3v^2 - 2v + 1\rangle}$

(i) Arc colorings

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

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

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

$$a_5 = \begin{pmatrix} 0 \\ -\frac{2}{5}v^5 + \frac{3}{5}v^4 + \cdots - \frac{9}{5}v + \frac{1}{5} \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1 \\ \frac{2}{5}v^5 - \frac{3}{5}v^4 + \cdots + \frac{9}{5}v - \frac{6}{5} \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -\frac{2}{5}v^5 + \frac{3}{5}v^4 + \cdots - \frac{9}{5}v + \frac{1}{5} \\ -\frac{2}{5}v^5 + \frac{3}{5}v^4 + \cdots - \frac{9}{5}v + \frac{6}{5} \end{pmatrix}$$

$$a_1 = \begin{pmatrix} \frac{2}{5}v^5 - \frac{3}{5}v^4 + \cdots + \frac{9}{5}v - \frac{1}{5} \\ \frac{2}{5}v^5 - \frac{3}{5}v^4 + \cdots + \frac{9}{5}v - \frac{6}{5} \end{pmatrix}$$

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

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

$$a_7 = \begin{pmatrix} v^4 - v \\ -\frac{2}{5}v^5 + \frac{3}{5}v^4 + \cdots - \frac{9}{5}v + \frac{6}{5} \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 2v \\ -\frac{1}{5}v^5 - \frac{1}{5}v^4 + \cdots + \frac{3}{5}v - \frac{2}{5} \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} \frac{6}{5}v^5 + \frac{1}{5}v^4 + \cdots + \frac{17}{5}v - \frac{3}{5} \\ \frac{2}{5}v^5 - \frac{3}{5}v^4 + \cdots + \frac{9}{5}v - \frac{6}{5} \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{14}{5}v^5 + \frac{21}{5}v^4 + \frac{11}{5}v^3 + \frac{2}{5}v^2 - \frac{58}{5}v + \frac{47}{5}$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$v = -1.024480 + 0.839835I$ $a = 0$ $b = -0.500000 - 0.866025I$	$-3.02413 + 4.85801I$	$0.94625 - 7.60556I$
$v = -1.024480 - 0.839835I$ $a = 0$ $b = -0.500000 + 0.866025I$	$-3.02413 - 4.85801I$	$0.94625 + 7.60556I$
$v = 1.239560 + 0.467306I$ $a = 0$ $b = -0.500000 + 0.866025I$	$-3.02413 + 0.79824I$	$2.23639 + 1.26697I$
$v = 1.239560 - 0.467306I$ $a = 0$ $b = -0.500000 - 0.866025I$	$-3.02413 - 0.79824I$	$2.23639 - 1.26697I$
$v = 0.284920 + 0.493496I$ $a = 0$ $b = -0.500000 - 0.866025I$	$1.11345 + 2.02988I$	$5.31735 - 5.84990I$
$v = 0.284920 - 0.493496I$ $a = 0$ $b = -0.500000 + 0.866025I$	$1.11345 - 2.02988I$	$5.31735 + 5.84990I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_4	$((u^2-u+1)^3)(u^{97}+34u^{96}+\cdots+11u-1)$
c_2	$((u^2+u+1)^3)(u^{97}+4u^{96}+\cdots+3u+1)$
c_3, c_8	$u^6(u^{97}+u^{96}+\cdots-96u-64)$
c_5	$((u^2-u+1)^3)(u^{97}+4u^{96}+\cdots+3u+1)$
c_6	$((u^3+u^2+2u+1)^2)(u^{97}+3u^{96}+\cdots-1136u-1297)$
c_7	$((u^3-u^2+1)^2)(u^{97}-3u^{96}+\cdots+4u-1)$
c_9	$u^6(u^{97}-35u^{96}+\cdots-52224u+4096)$
c_{10}	$((u^3+u^2+2u+1)^2)(u^{97}-31u^{96}+\cdots-14u-1)$
c_{11}	$((u^3+u^2-1)^2)(u^{97}-3u^{96}+\cdots+4u-1)$
c_{12}	$((u^3-u^2+2u-1)^2)(u^{97}-31u^{96}+\cdots-14u-1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$((y^2+y+1)^3)(y^{97}+62y^{96}+\cdots+555y-1)$
c_2, c_5	$((y^2+y+1)^3)(y^{97}+34y^{96}+\cdots+11y-1)$
c_3, c_8	$y^6(y^{97}+35y^{96}+\cdots-52224y-4096)$
c_6	$((y^3+3y^2+2y-1)^2)(y^{97}+13y^{96}+\cdots-6.54765\times 10^7 y-1682209)$
c_7, c_{11}	$((y^3-y^2+2y-1)^2)(y^{97}-31y^{96}+\cdots-14y-1)$
c_9	$y^6(y^{97}+43y^{96}+\cdots-2.00278\times 10^8 y-1.67772\times 10^7)$
c_{10}, c_{12}	$((y^3+3y^2+2y-1)^2)(y^{97}+73y^{96}+\cdots+50y-1)$