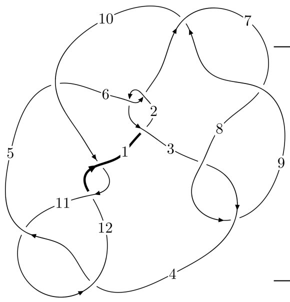
$12a_{0338}$ ($K12a_{0338}$)



A knot diagram[1]

Linearized knot diagam

→	↓	→	↑	→	↓	→	↓	→	↓	→	↑	→	↓	→	↓	→	↓	→	↑	→	↓	→	↑	→
	3		6		8		12		10		2		9		4		7		1		5		11	

Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -2.78002 \times 10^{173} u^{104} + 5.41973 \times 10^{173} u^{103} + \cdots + 1.18953 \times 10^{174} b - 3.63788 \times 10^{175}, \\ & -9.01231 \times 10^{174} u^{104} - 1.44968 \times 10^{175} u^{103} + \cdots + 5.94763 \times 10^{174} a + 4.58982 \times 10^{176}, \\ & u^{105} + u^{104} + \cdots - 125u - 25 \rangle \\ I_2^u = \langle & 28a^5 - 43a^4u + 70a^4 - 86a^3u + 36a^3 - 27a^2u - 16a^2 + 16au + 215b + 189a - 114u - 8, \\ & a^6 - 2a^5u + 3a^5 - 5a^4u + a^4 - 2a^3u - 3a^3 + 2a^2u + 3a^2 - 5au + 5a - 3u + 4,\ u^2 + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 117 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. $\boldsymbol{I_1^u = \langle -2.78\times 10^{173}u^{104} + 5.42\times 10^{173}u^{103} + \cdots + 1.19\times 10^{174}b - 3.64\times 10^{175},\ -9.01\times 10^{174}u^{104} - 1.45\times 10^{175}u^{103} + \cdots + 5.95\times 10^{174}a + 4.59\times 10^{176},\ u^{105} + u^{104} + \cdots - 125u - 25\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1.51528u^{104} + 2.43741u^{103} + \cdots - 342.962u - 77.1705 \\ 0.233708u^{104} - 0.455620u^{103} + \cdots + 106.022u + 30.5826 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1.41422u^{104} + 3.00688u^{103} + \cdots - 376.935u - 86.2579 \\ -0.102232u^{104} - 0.503588u^{103} + \cdots + 107.840u + 27.3085 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0.107162u^{104} + 0.439090u^{103} + \cdots - 68.2154u - 12.9715 \\ -1.66904u^{104} - 0.358595u^{103} + \cdots + 71.3230u + 2.74449 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1.74898u^{104} + 1.98179u^{103} + \cdots - 236.940u - 46.5879 \\ 0.233708u^{104} - 0.455620u^{103} + \cdots + 106.022u + 30.5826 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0.0840748u^{104} + 0.942451u^{103} + \cdots - 98.0344u - 26.0878 \\ 0.100962u^{104} - 0.744433u^{103} + \cdots + 141.226u + 39.8498 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -0.990500u^{104} - 3.18401u^{103} + \cdots + 407.098u + 90.6155 \\ 2.57023u^{104} + 0.861705u^{103} + \cdots - 126.916u - 11.1131 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0.301371u^{104} + 2.46302u^{103} + \cdots - 344.399u - 88.0238 \\ -1.21240u^{104} - 0.508503u^{103} + \cdots + 118.564u + 20.5025 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -3.34744u^{104} - 4.63397u^{103} + \cdots + 773.517u + 167.231$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{105} + 51u^{104} + \cdots - 1225u - 625$
c_2, c_6	$u^{105} - u^{104} + \cdots - 125u + 25$
c_3, c_8	$u^{105} - u^{104} + \cdots + 9u + 1$
c_4, c_{11}	$u^{105} + u^{104} + \cdots - 7u + 1$
c_5	$u^{105} - 5u^{104} + \cdots - 422719u + 60663$
c_7, c_9	$u^{105} + 35u^{104} + \cdots - 43u + 1$
c_{10}, c_{12}	$u^{105} - 35u^{104} + \cdots + 39u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{105} + 19y^{104} + \cdots + 36351875y - 390625$
c_2, c_6	$y^{105} + 51y^{104} + \cdots - 1225y - 625$
c_3, c_8	$y^{105} - 35y^{104} + \cdots - 43y - 1$
c_4, c_{11}	$y^{105} + 35y^{104} + \cdots + 39y - 1$
c_5	$y^{105} + 15y^{104} + \cdots + 108021991111y - 3679999569$
c_7, c_9	$y^{105} + 77y^{104} + \cdots - 5759y - 1$
c_{10}, c_{12}	$y^{105} + 75y^{104} + \cdots + 951y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.749218 + 0.639499I$ $a = -0.154405 + 0.543190I$ $b = 0.077141 + 1.283560I$	$3.66490 - 2.51476I$	0
$u = -0.749218 - 0.639499I$ $a = -0.154405 - 0.543190I$ $b = 0.077141 - 1.283560I$	$3.66490 + 2.51476I$	0
$u = -0.948983 + 0.361206I$ $a = -0.206223 - 0.158334I$ $b = 0.45260 - 1.51018I$	$2.91142 + 11.55500I$	0
$u = -0.948983 - 0.361206I$ $a = -0.206223 + 0.158334I$ $b = 0.45260 + 1.51018I$	$2.91142 - 11.55500I$	0
$u = 0.922665 + 0.425326I$ $a = 0.413418 - 0.143561I$ $b = -0.183481 - 1.219410I$	$3.78039 - 5.61089I$	0
$u = 0.922665 - 0.425326I$ $a = 0.413418 + 0.143561I$ $b = -0.183481 + 1.219410I$	$3.78039 + 5.61089I$	0
$u = -0.455269 + 0.915131I$ $a = -1.78391 + 1.38691I$ $b = 0.417127 + 1.242680I$	$-3.63933 - 1.37243I$	0
$u = -0.455269 - 0.915131I$ $a = -1.78391 - 1.38691I$ $b = 0.417127 - 1.242680I$	$-3.63933 + 1.37243I$	0
$u = 0.613086 + 0.826892I$ $a = 1.021720 + 0.354723I$ $b = -0.497693 - 0.157462I$	$3.75864 + 2.41481I$	0
$u = 0.613086 - 0.826892I$ $a = 1.021720 - 0.354723I$ $b = -0.497693 + 0.157462I$	$3.75864 - 2.41481I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.896671 + 0.356964I$ $a = -0.203981 + 0.291029I$ $b = 0.44898 + 1.46429I$	$1.72233 - 5.88113I$	0
$u = 0.896671 - 0.356964I$ $a = -0.203981 - 0.291029I$ $b = 0.44898 - 1.46429I$	$1.72233 + 5.88113I$	0
$u = -0.914248 + 0.490333I$ $a = 0.128466 - 0.189595I$ $b = 0.33402 - 1.49335I$	$7.99889 + 5.30446I$	0
$u = -0.914248 - 0.490333I$ $a = 0.128466 + 0.189595I$ $b = 0.33402 + 1.49335I$	$7.99889 - 5.30446I$	0
$u = 0.099289 + 1.032690I$ $a = -0.503451 - 1.051430I$ $b = 0.537831 + 0.973312I$	$-1.75450 - 2.05061I$	0
$u = 0.099289 - 1.032690I$ $a = -0.503451 + 1.051430I$ $b = 0.537831 - 0.973312I$	$-1.75450 + 2.05061I$	0
$u = -0.854899 + 0.421450I$ $a = 0.425038 + 0.283762I$ $b = -0.128597 + 1.177340I$	$2.54200 + 0.06951I$	0
$u = -0.854899 - 0.421450I$ $a = 0.425038 - 0.283762I$ $b = -0.128597 - 1.177340I$	$2.54200 - 0.06951I$	0
$u = -0.031016 + 1.049550I$ $a = 1.113560 + 0.088475I$ $b = -0.0059743 - 0.0144561I$	$-4.65129 - 2.79161I$	0
$u = -0.031016 - 1.049550I$ $a = 1.113560 - 0.088475I$ $b = -0.0059743 + 0.0144561I$	$-4.65129 + 2.79161I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.889111 + 0.570980I$ $a = 0.086184 - 0.189831I$ $b = -0.068274 - 1.318180I$	$8.53906 + 0.69544I$	0
$u = 0.889111 - 0.570980I$ $a = 0.086184 + 0.189831I$ $b = -0.068274 + 1.318180I$	$8.53906 - 0.69544I$	0
$u = -0.840055 + 0.645863I$ $a = 0.575483 - 0.243329I$ $b = 0.19081 - 1.42878I$	$5.26478 - 1.27381I$	0
$u = -0.840055 - 0.645863I$ $a = 0.575483 + 0.243329I$ $b = 0.19081 + 1.42878I$	$5.26478 + 1.27381I$	0
$u = -0.412578 + 0.843978I$ $a = 2.05627 - 0.88271I$ $b = 0.126633 - 1.017210I$	$-3.33038 - 2.22358I$	0
$u = -0.412578 - 0.843978I$ $a = 2.05627 + 0.88271I$ $b = 0.126633 + 1.017210I$	$-3.33038 + 2.22358I$	0
$u = 0.774233 + 0.531300I$ $a = 0.340368 + 0.531499I$ $b = 0.293190 + 1.372850I$	$3.36600 - 3.23323I$	0
$u = 0.774233 - 0.531300I$ $a = 0.340368 - 0.531499I$ $b = 0.293190 - 1.372850I$	$3.36600 + 3.23323I$	0
$u = -0.495537 + 0.944166I$ $a = -0.75412 + 1.30512I$ $b = 0.899731 - 1.079430I$	$-3.30148 - 3.57186I$	0
$u = -0.495537 - 0.944166I$ $a = -0.75412 - 1.30512I$ $b = 0.899731 + 1.079430I$	$-3.30148 + 3.57186I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.472411 + 0.959035I$ $a = -1.94854 - 1.12109I$ $b = 0.443886 - 1.273270I$	$-3.90875 + 7.44310I$	0
$u = 0.472411 - 0.959035I$ $a = -1.94854 + 1.12109I$ $b = 0.443886 + 1.273270I$	$-3.90875 - 7.44310I$	0
$u = -0.265182 + 1.035910I$ $a = -0.540567 + 0.578355I$ $b = 0.627717 + 0.218999I$	$-1.64134 - 0.64025I$	0
$u = -0.265182 - 1.035910I$ $a = -0.540567 - 0.578355I$ $b = 0.627717 - 0.218999I$	$-1.64134 + 0.64025I$	0
$u = 0.436930 + 0.990417I$ $a = -0.70748 - 1.31204I$ $b = 0.833111 + 1.105010I$	$-4.03635 - 1.85896I$	0
$u = 0.436930 - 0.990417I$ $a = -0.70748 + 1.31204I$ $b = 0.833111 - 1.105010I$	$-4.03635 + 1.85896I$	0
$u = 0.827568 + 0.728196I$ $a = -0.360735 - 0.251802I$ $b = 0.078908 - 1.395500I$	$5.40630 + 7.26455I$	0
$u = 0.827568 - 0.728196I$ $a = -0.360735 + 0.251802I$ $b = 0.078908 + 1.395500I$	$5.40630 - 7.26455I$	0
$u = 0.408500 + 1.043460I$ $a = -1.31979 - 0.57260I$ $b = 0.987712 - 0.301187I$	$-3.74828 + 3.33003I$	0
$u = 0.408500 - 1.043460I$ $a = -1.31979 + 0.57260I$ $b = 0.987712 + 0.301187I$	$-3.74828 - 3.33003I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.654211 + 0.587061I$ $a = 1.095220 + 0.206022I$ $b = -0.467679 + 0.101114I$	$0.36679 - 3.18781I$	0
$u = 0.654211 - 0.587061I$ $a = 1.095220 - 0.206022I$ $b = -0.467679 - 0.101114I$	$0.36679 + 3.18781I$	0
$u = -0.523776 + 0.994154I$ $a = -1.58817 + 0.36404I$ $b = 1.129100 + 0.462674I$	$-0.15746 - 5.39094I$	0
$u = -0.523776 - 0.994154I$ $a = -1.58817 - 0.36404I$ $b = 1.129100 - 0.462674I$	$-0.15746 + 5.39094I$	0
$u = 0.391092 + 0.779809I$ $a = 1.94937 + 1.22961I$ $b = 0.181158 + 1.035310I$	$-3.18895 - 3.79634I$	0
$u = 0.391092 - 0.779809I$ $a = 1.94937 - 1.22961I$ $b = 0.181158 - 1.035310I$	$-3.18895 + 3.79634I$	0
$u = -0.538943 + 0.992209I$ $a = 0.892504 - 0.495752I$ $b = -0.440179 + 0.375313I$	$-1.80743 - 2.63543I$	0
$u = -0.538943 - 0.992209I$ $a = 0.892504 + 0.495752I$ $b = -0.440179 - 0.375313I$	$-1.80743 + 2.63543I$	0
$u = 0.602258 + 0.992368I$ $a = 0.967009 + 0.515114I$ $b = -0.523841 - 0.361124I$	$-0.81304 + 8.09901I$	0
$u = 0.602258 - 0.992368I$ $a = 0.967009 - 0.515114I$ $b = -0.523841 + 0.361124I$	$-0.81304 - 8.09901I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.435933+0.697192I$ $a=-1.58393-0.14120I$ $b=\ \ 0.906082+0.759162I$	$-2.52613-0.37000I$	0
$u=-0.435933-0.697192I$ $a=-1.58393+0.14120I$ $b=\ \ 0.906082-0.759162I$	$-2.52613+0.37000I$	0
$u=-0.326926+0.753509I$ $a=\ \ 0.876707-0.161992I$ $b=-0.208415+0.097999I$	$-0.358551-1.274780I$	0
$u=-0.326926-0.753509I$ $a=\ \ 0.876707+0.161992I$ $b=-0.208415-0.097999I$	$-0.358551+1.274780I$	0
$u=\ \ 0.727147+0.929674I$ $a=\ \ 1.332630+0.067450I$ $b=-0.073439+1.279710I$	$4.78389-1.49312I$	0
$u=\ \ 0.727147-0.929674I$ $a=\ \ 1.332630-0.067450I$ $b=-0.073439-1.279710I$	$4.78389+1.49312I$	0
$u=-0.642428+0.994707I$ $a=\ \ 1.58181-0.06710I$ $b=-0.120516-1.169660I$	$2.58651-2.77147I$	0
$u=-0.642428-0.994707I$ $a=\ \ 1.58181+0.06710I$ $b=-0.120516+1.169660I$	$2.58651+2.77147I$	0
$u=-0.291339+1.147920I$ $a=-1.07904+1.33880I$ $b=\ \ 0.880929-0.060855I$	$-7.29427+3.25905I$	0
$u=-0.291339-1.147920I$ $a=-1.07904-1.33880I$ $b=\ \ 0.880929+0.060855I$	$-7.29427-3.25905I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.318480 + 1.149160I$ $a = -1.20502 - 1.21024I$ $b = 0.937266 + 0.014042I$	$-7.80378 + 2.53380I$	0
$u = 0.318480 - 1.149160I$ $a = -1.20502 + 1.21024I$ $b = 0.937266 - 0.014042I$	$-7.80378 - 2.53380I$	0
$u = -0.394685 + 0.681817I$ $a = -0.74179 + 1.24370I$ $b = 0.858018 - 0.849099I$	$1.00451 + 1.38416I$	0
$u = -0.394685 - 0.681817I$ $a = -0.74179 - 1.24370I$ $b = 0.858018 + 0.849099I$	$1.00451 - 1.38416I$	0
$u = -0.696432 + 0.998477I$ $a = -1.363000 + 0.182789I$ $b = 0.36242 + 1.47257I$	$4.19020 - 4.43268I$	0
$u = -0.696432 - 0.998477I$ $a = -1.363000 - 0.182789I$ $b = 0.36242 - 1.47257I$	$4.19020 + 4.43268I$	0
$u = 0.525892 + 1.105600I$ $a = -1.70195 - 0.58889I$ $b = 1.227660 - 0.311645I$	$-6.36079 + 5.15428I$	0
$u = 0.525892 - 1.105600I$ $a = -1.70195 + 0.58889I$ $b = 1.227660 + 0.311645I$	$-6.36079 - 5.15428I$	0
$u = -0.557253 + 1.100040I$ $a = -1.75299 + 0.53655I$ $b = 1.264240 + 0.349874I$	$-5.43018 - 10.86880I$	0
$u = -0.557253 - 1.100040I$ $a = -1.75299 - 0.53655I$ $b = 1.264240 - 0.349874I$	$-5.43018 + 10.86880I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.633066 + 1.062180I$ $a = -1.71464 - 0.17211I$ $b = 0.45172 - 1.45583I$	$1.76945 + 8.55794I$	0
$u = 0.633066 - 1.062180I$ $a = -1.71464 + 0.17211I$ $b = 0.45172 + 1.45583I$	$1.76945 - 8.55794I$	0
$u = -0.157329 + 1.256680I$ $a = 0.153650 - 1.003600I$ $b = 0.055397 + 0.979337I$	$-3.05816 - 2.74237I$	0
$u = -0.157329 - 1.256680I$ $a = 0.153650 + 1.003600I$ $b = 0.055397 - 0.979337I$	$-3.05816 + 2.74237I$	0
$u = -0.659194 + 0.320658I$ $a = -0.514042 + 0.767799I$ $b = 1.036400 - 0.466896I$	$-3.24371 + 6.12777I$	$-6.15771 - 5.80608I$
$u = -0.659194 - 0.320658I$ $a = -0.514042 - 0.767799I$ $b = 1.036400 + 0.466896I$	$-3.24371 - 6.12777I$	$-6.15771 + 5.80608I$
$u = 0.705819 + 1.068090I$ $a = 1.55412 - 0.13299I$ $b = -0.223821 + 1.220860I$	$7.02983 + 5.17717I$	0
$u = 0.705819 - 1.068090I$ $a = 1.55412 + 0.13299I$ $b = -0.223821 - 1.220860I$	$7.02983 - 5.17717I$	0
$u = -0.638249 + 1.127680I$ $a = 1.71290 + 0.16233I$ $b = -0.276567 - 1.120920I$	$0.42944 - 5.60887I$	0
$u = -0.638249 - 1.127680I$ $a = 1.71290 - 0.16233I$ $b = -0.276567 + 1.120920I$	$0.42944 + 5.60887I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.208539 + 1.286940I$ $a = -0.33208 - 1.39539I$ $b = 0.471474 + 1.286510I$	$-3.77595 - 2.49413I$	0
$u = 0.208539 - 1.286940I$ $a = -0.33208 + 1.39539I$ $b = 0.471474 - 1.286510I$	$-3.77595 + 2.49413I$	0
$u = 0.652851 + 0.229553I$ $a = -0.391974 - 0.605737I$ $b = 1.000530 + 0.352950I$	$-3.94841 - 0.62805I$	$-8.02207 + 0.40086I$
$u = 0.652851 - 0.229553I$ $a = -0.391974 + 0.605737I$ $b = 1.000530 - 0.352950I$	$-3.94841 + 0.62805I$	$-8.02207 - 0.40086I$
$u = -0.045533 + 1.308020I$ $a = -0.118848 + 1.278670I$ $b = 0.274612 - 1.204280I$	$1.44896 + 2.66591I$	0
$u = -0.045533 - 1.308020I$ $a = -0.118848 - 1.278670I$ $b = 0.274612 + 1.204280I$	$1.44896 - 2.66591I$	0
$u = -0.545403 + 0.420809I$ $a = 1.077950 - 0.122804I$ $b = -0.300695 - 0.199395I$	$-0.34516 - 1.69194I$	$-0.65997 + 3.30204I$
$u = -0.545403 - 0.420809I$ $a = 1.077950 + 0.122804I$ $b = -0.300695 + 0.199395I$	$-0.34516 + 1.69194I$	$-0.65997 - 3.30204I$
$u = -0.684533 + 1.119160I$ $a = -1.68900 - 0.11987I$ $b = 0.47230 + 1.53335I$	$6.08933 - 11.17010I$	0
$u = -0.684533 - 1.119160I$ $a = -1.68900 + 0.11987I$ $b = 0.47230 - 1.53335I$	$6.08933 + 11.17010I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.119068 + 1.317990I$ $a = 0.138283 + 1.145170I$ $b = 0.060042 - 1.094540I$	$-2.36377 - 2.50056I$	0
$u = 0.119068 - 1.317990I$ $a = 0.138283 - 1.145170I$ $b = 0.060042 + 1.094540I$	$-2.36377 + 2.50056I$	0
$u = 0.628153 + 1.166960I$ $a = -1.95577 + 0.16084I$ $b = 0.54821 - 1.50960I$	$-0.71454 + 11.48410I$	0
$u = 0.628153 - 1.166960I$ $a = -1.95577 - 0.16084I$ $b = 0.54821 + 1.50960I$	$-0.71454 - 11.48410I$	0
$u = 0.661390 + 1.149150I$ $a = 1.69582 - 0.21098I$ $b = -0.310769 + 1.143510I$	$1.58523 + 11.41040I$	0
$u = 0.661390 - 1.149150I$ $a = 1.69582 + 0.21098I$ $b = -0.310769 - 1.143510I$	$1.58523 - 11.41040I$	0
$u = -0.186843 + 1.334870I$ $a = -0.27019 + 1.43191I$ $b = 0.419159 - 1.326740I$	$-2.94616 + 7.93415I$	0
$u = -0.186843 - 1.334870I$ $a = -0.27019 - 1.43191I$ $b = 0.419159 + 1.326740I$	$-2.94616 - 7.93415I$	0
$u = -0.644955 + 1.184790I$ $a = -1.93120 - 0.24671I$ $b = 0.55527 + 1.53543I$	$0.4062 - 17.3601I$	0
$u = -0.644955 - 1.184790I$ $a = -1.93120 + 0.24671I$ $b = 0.55527 - 1.53543I$	$0.4062 + 17.3601I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.369462 + 0.499023I$ $a = -1.88737 + 0.31530I$ $b = 0.810482 - 0.869250I$	$-2.57683 + 5.38819I$	$-4.57971 - 8.38711I$
$u = 0.369462 - 0.499023I$ $a = -1.88737 - 0.31530I$ $b = 0.810482 + 0.869250I$	$-2.57683 - 5.38819I$	$-4.57971 + 8.38711I$
$u = 0.481861$ $a = 0.400491$ $b = 0.607759$	-1.15266	-8.89830
$u = -0.342083 + 0.052573I$ $a = 1.61547 + 0.81293I$ $b = 0.374191 - 0.564968I$	$1.25400 + 1.74865I$	$2.56111 - 5.04515I$
$u = -0.342083 - 0.052573I$ $a = 1.61547 - 0.81293I$ $b = 0.374191 + 0.564968I$	$1.25400 - 1.74865I$	$2.56111 + 5.04515I$

II.

$\boldsymbol{I_2^u = \langle -43a^4u - 86a^3u + \cdots + 189a - 8,\ -2a^5u - 5a^4u + \cdots + 5a + 4,\ u^2 + 1\rangle}$

(i) Arc colorings

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

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

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

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

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

$$a_{10} = \begin{pmatrix} a \\ 0.200000a^4u + 0.400000a^3u + \cdots - 0.879070a + 0.0372093 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.200000a^4u - 0.400000a^3u + \cdots + 0.879070a - 0.0372093 \\ 0.400000a^4u + 0.800000a^3u + \cdots - 0.758140a + 0.0744186 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.0604651a^5u + 0.251163a^4u + \cdots - 0.688372a + 0.479070 \\ 0.0604651a^5u + 0.0511628a^4u + \cdots + 0.190698a - 0.558140 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.200000a^4u + 0.400000a^3u + \cdots + 0.120930a + 0.0372093 \\ 0.200000a^4u + 0.400000a^3u + \cdots - 0.879070a + 0.0372093 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.0604651a^5u - 0.0511628a^4u + \cdots - 0.190698a + 0.558140 \\ 0.200000a^4u + 0.400000a^3u + \cdots - 0.879070a - 0.962791 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -au \\ 0.130233a^5u + 0.325581a^4u + \cdots - 0.0744186a + 0.530233 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.0651163a^5u - 0.362791a^4u + \cdots + 0.195349a - 0.139535 \\ 0.0651163a^5u + 0.762791a^4u + \cdots - 0.511628a - 0.111628 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{8}{215}a^5u - \frac{112}{215}a^5 + \frac{152}{215}a^4u - \frac{108}{215}a^4 + \frac{88}{215}a^3u + \frac{40}{43}a^3 - \frac{256}{215}a^2u - \frac{128}{215}a^2 + \frac{312}{215}au - \frac{224}{43}a + \frac{704}{215}u - \frac{1352}{215}$

(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_8	$(u^4-u^2+1)^3$
c_4, c_{11}	$(u^6+u^4+2u^2+1)^2$
c_5	$(u^6-3u^4+2u^2+1)^2$
c_7	$(u^2-u+1)^6$
c_9	$(u^2+u+1)^6$
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_8	$(y^2-y+1)^6$
c_4, c_{11}	$(y^3+y^2+2y+1)^4$
c_5	$(y^3-3y^2+2y+1)^4$
c_7, c_9	$(y^2+y+1)^6$
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
$u = 1.000000I$ $a = 0.807141 - 0.650946I$ $b = 0.500000 + 0.866025I$	$-4.66906 - 4.85801I$	$-9.50976 + 6.44355I$
$u = 1.000000I$ $a = 0.807141 + 1.081110I$ $b = 0.500000 - 0.866025I$	$-4.66906 - 0.79824I$	$-9.50976 - 0.48465I$
$u = 1.000000I$ $a = -0.500000 - 0.296185I$ $b = 0.500000 + 0.866025I$	$-0.53148 - 2.02988I$	$-2.98049 + 3.46410I$
$u = 1.000000I$ $a = -0.50000 + 1.43587I$ $b = 0.500000 - 0.866025I$	$-0.53148 + 2.02988I$	$-2.98049 - 3.46410I$
$u = 1.000000I$ $a = -1.80714 - 0.65095I$ $b = 0.500000 + 0.866025I$	$-4.66906 + 0.79824I$	$-9.50976 + 0.48465I$
$u = 1.000000I$ $a = -1.80714 + 1.08111I$ $b = 0.500000 - 0.866025I$	$-4.66906 + 4.85801I$	$-9.50976 - 6.44355I$
$u = -1.000000I$ $a = 0.807141 + 0.650946I$ $b = 0.500000 - 0.866025I$	$-4.66906 + 4.85801I$	$-9.50976 - 6.44355I$
$u = -1.000000I$ $a = 0.807141 - 1.081110I$ $b = 0.500000 + 0.866025I$	$-4.66906 + 0.79824I$	$-9.50976 + 0.48465I$
$u = -1.000000I$ $a = -0.500000 + 0.296185I$ $b = 0.500000 - 0.866025I$	$-0.53148 + 2.02988I$	$-2.98049 - 3.46410I$
$u = -1.000000I$ $a = -0.50000 - 1.43587I$ $b = 0.500000 + 0.866025I$	$-0.53148 - 2.02988I$	$-2.98049 + 3.46410I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad - 1.000000I$ $a = -1.80714 + 0.65095I$ $b = 0.500000 - 0.866025I$	$-4.66906 - 0.79824I$	$-9.50976 - 0.48465I$
$u = \quad - 1.000000I$ $a = -1.80714 - 1.08111I$ $b = 0.500000 + 0.866025I$	$-4.66906 - 4.85801I$	$-9.50976 + 6.44355I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^{12})(u^{105}+51u^{104}+\cdots-1225u-625)$
c_2, c_6	$((u^2+1)^6)(u^{105}-u^{104}+\cdots-125u+25)$
c_3, c_8	$((u^4-u^2+1)^3)(u^{105}-u^{104}+\cdots+9u+1)$
c_4, c_{11}	$((u^6+u^4+2u^2+1)^2)(u^{105}+u^{104}+\cdots-7u+1)$
c_5	$((u^6-3u^4+2u^2+1)^2)(u^{105}-5u^{104}+\cdots-422719u+60663)$
c_7	$((u^2-u+1)^6)(u^{105}+35u^{104}+\cdots-43u+1)$
c_9	$((u^2+u+1)^6)(u^{105}+35u^{104}+\cdots-43u+1)$
c_{10}	$((u^3+u^2+2u+1)^4)(u^{105}-35u^{104}+\cdots+39u+1)$
c_{12}	$((u^3-u^2+2u-1)^4)(u^{105}-35u^{104}+\cdots+39u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^{12})(y^{105}+19y^{104}+\cdots+3.63519\times 10^7 y-390625)$
c_2, c_6	$((y+1)^{12})(y^{105}+51y^{104}+\cdots-1225y-625)$
c_3, c_8	$((y^2-y+1)^6)(y^{105}-35y^{104}+\cdots-43y-1)$
c_4, c_{11}	$((y^3+y^2+2y+1)^4)(y^{105}+35y^{104}+\cdots+39y-1)$
c_5	$(y^3-3y^2+2y+1)^4$ $\cdot(y^{105}+15y^{104}+\cdots+108021991111y-3679999569)$
c_7, c_9	$((y^2+y+1)^6)(y^{105}+77y^{104}+\cdots-5759y-1)$
c_{10}, c_{12}	$((y^3+3y^2+2y-1)^4)(y^{105}+75y^{104}+\cdots+951y-1)$