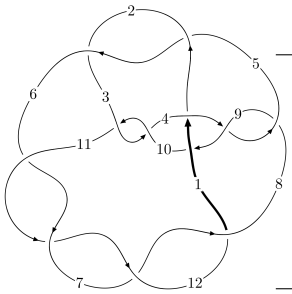
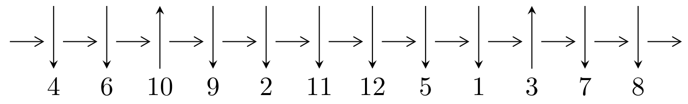
$12a_{0952}$ $(K12a_{0952})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & -4.06116 \times 10^{117} u^{76} + 8.53092 \times 10^{117} u^{75} + \cdots + 9.26283 \times 10^{117} b + 6.65560 \times 10^{118}, \\
& -1.56367 \times 10^{119} u^{76} + 2.54497 \times 10^{120} u^{75} + \cdots + 1.20232 \times 10^{121} a - 2.34026 \times 10^{122}, \\
& u^{77} - u^{76} + \cdots - 267u - 11 \rangle \\
I_2^u = \langle & u^7 - 5u^5 + u^4 + 7u^3 - 3u^2 + b - 2u + 1,\ u^7 - 5u^5 + u^4 + 7u^3 - 4u^2 + a - 2u + 3, \\
& u^{14} - 10u^{12} + 2u^{11} + 39u^{10} - 16u^9 - 73u^8 + 46u^7 + 63u^6 - 56u^5 - 17u^4 + 25u^3 - 2u^2 - 2u + 1 \rangle \\
I_3^u = \langle & b - a - 1,\ a^2 + a + 1,\ u + 1 \rangle
\end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 93 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. $\boldsymbol{I_1^u = \langle -4.06\times10^{117}u^{76} + 8.53\times10^{117}u^{75} + \cdots + 9.26\times10^{117}b + 6.66\times10^{118},\ -1.56\times10^{119}u^{76} + 2.54\times10^{120}u^{75} + \cdots + 1.20\times10^{121}a - 2.34\times10^{122},\ u^{77} - u^{76} + \cdots - 267u - 11\rangle}$

(i) Arc colorings

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

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

$$a_{12} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.0130055u^{76} - 0.211672u^{75} + \cdots + 76.4038u + 19.4646 \\ 0.438436u^{76} - 0.920984u^{75} + \cdots - 179.356u - 7.18528 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} 0.167907u^{76} - 0.560036u^{75} + \cdots + 5.28710u + 16.3419 \\ 0.593337u^{76} - 1.26935u^{75} + \cdots - 250.473u - 10.3080 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.411584u^{76} + 0.826205u^{75} + \cdots + 35.9924u - 12.3201 \\ -0.626576u^{76} + 1.06289u^{75} + \cdots + 236.498u + 9.82640 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.367850u^{76} + 0.345807u^{75} + \cdots + 92.0501u + 14.7008 \\ -1.23947u^{76} + 1.85355u^{75} + \cdots + 320.091u + 14.3520 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.210003u^{76} - 1.23021u^{75} + \cdots - 8.76425u + 22.4581 \\ 1.40382u^{76} - 3.36880u^{75} + \cdots - 583.635u - 24.2823 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.449798u^{76} + 0.574876u^{75} + \cdots + 146.822u + 17.4073 \\ -1.28744u^{76} + 2.03905u^{75} + \cdots + 374.165u + 16.7057 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -10.0222u^{76} + 16.2318u^{75} + \cdots + 3664.59u + 156.514$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{77} - 9u^{76} + \cdots - 22u + 1$
c_2, c_5	$u^{77} + u^{76} + \cdots + 6201u + 108$
c_3, c_{10}	$u^{77} + 33u^{75} + \cdots - 4491u - 361$
c_4, c_8	$u^{77} + 3u^{76} + \cdots - 368u - 79$
c_6, c_7, c_{11} c_{12}	$u^{77} - u^{76} + \cdots - 267u - 11$
c_9	$u^{77} + 6u^{76} + \cdots + 12u + 8$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{77} - 5y^{76} + \cdots + 70y - 1$
c_2, c_5	$y^{77} - 73y^{76} + \cdots + 14541849y - 11664$
c_3, c_{10}	$y^{77} + 66y^{76} + \cdots + 8226479y - 130321$
c_4, c_8	$y^{77} + 35y^{76} + \cdots - 116112y - 6241$
c_6, c_7, c_{11} c_{12}	$y^{77} - 99y^{76} + \cdots + 37057y - 121$
c_9	$y^{77} - 12y^{76} + \cdots + 2032y - 64$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.038185 + 0.977495I$ $a = -0.0887050 - 0.0211649I$ $b = 0.180623 - 1.401330I$	$-3.38576 - 7.06554I$	0
$u = 0.038185 - 0.977495I$ $a = -0.0887050 + 0.0211649I$ $b = 0.180623 + 1.401330I$	$-3.38576 + 7.06554I$	0
$u = 0.959703 + 0.096825I$ $a = -0.20377 - 1.90119I$ $b = 0.228834 - 1.133660I$	$-4.11267 - 2.60144I$	0
$u = 0.959703 - 0.096825I$ $a = -0.20377 + 1.90119I$ $b = 0.228834 + 1.133660I$	$-4.11267 + 2.60144I$	0
$u = 1.005850 + 0.248662I$ $a = -1.40505 - 1.62886I$ $b = 0.109475 - 1.292590I$	$-6.11081 - 3.61083I$	0
$u = 1.005850 - 0.248662I$ $a = -1.40505 + 1.62886I$ $b = 0.109475 + 1.292590I$	$-6.11081 + 3.61083I$	0
$u = -1.051160 + 0.193722I$ $a = -0.588531 - 0.688350I$ $b = 0.226875 - 0.069667I$	$-1.83333 - 1.94928I$	0
$u = -1.051160 - 0.193722I$ $a = -0.588531 + 0.688350I$ $b = 0.226875 + 0.069667I$	$-1.83333 + 1.94928I$	0
$u = 0.982142 + 0.468578I$ $a = 0.91609 + 1.21859I$ $b = -0.39039 + 1.53681I$	$-9.70005 - 6.50940I$	0
$u = 0.982142 - 0.468578I$ $a = 0.91609 - 1.21859I$ $b = -0.39039 - 1.53681I$	$-9.70005 + 6.50940I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.766904 + 0.773981I$ $a = -0.921347 + 0.489206I$ $b = 0.091213 + 1.388450I$	$-7.58242 + 2.37767I$	0
$u = -0.766904 - 0.773981I$ $a = -0.921347 - 0.489206I$ $b = 0.091213 - 1.388450I$	$-7.58242 - 2.37767I$	0
$u = 0.830594 + 0.329150I$ $a = 0.253500 + 0.255718I$ $b = -1.058950 + 0.357207I$	$-0.60061 - 7.40607I$	0
$u = 0.830594 - 0.329150I$ $a = 0.253500 - 0.255718I$ $b = -1.058950 - 0.357207I$	$-0.60061 + 7.40607I$	0
$u = -0.821582 + 0.262973I$ $a = -0.40258 + 2.54715I$ $b = 0.246547 + 1.190120I$	$-1.06852 + 6.57872I$	0
$u = -0.821582 - 0.262973I$ $a = -0.40258 - 2.54715I$ $b = 0.246547 - 1.190120I$	$-1.06852 - 6.57872I$	0
$u = -1.002280 + 0.636861I$ $a = 0.88637 - 1.12933I$ $b = -0.36459 - 1.49562I$	$-6.57021 + 12.38620I$	0
$u = -1.002280 - 0.636861I$ $a = 0.88637 + 1.12933I$ $b = -0.36459 + 1.49562I$	$-6.57021 - 12.38620I$	0
$u = -1.241390 + 0.072237I$ $a = -0.175685 + 0.764416I$ $b = 0.482561 + 0.410258I$	$-1.57748 + 1.98475I$	0
$u = -1.241390 - 0.072237I$ $a = -0.175685 - 0.764416I$ $b = 0.482561 - 0.410258I$	$-1.57748 - 1.98475I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.177425 + 0.729527I$ $a = -0.364310 - 0.428903I$ $b = 0.162031 + 1.383920I$	$-6.18457 + 2.49771I$	$-14.4448 + 0.I$
$u = -0.177425 - 0.729527I$ $a = -0.364310 + 0.428903I$ $b = 0.162031 - 1.383920I$	$-6.18457 - 2.49771I$	$-14.4448 + 0.I$
$u = 0.582280 + 0.471981I$ $a = 0.168635 - 0.799555I$ $b = 0.574579 + 0.079542I$	$2.28027 - 3.59748I$	$-8.00000 + 4.60742I$
$u = 0.582280 - 0.471981I$ $a = 0.168635 + 0.799555I$ $b = 0.574579 - 0.079542I$	$2.28027 + 3.59748I$	$-8.00000 - 4.60742I$
$u = 0.693292 + 0.271817I$ $a = -1.153550 + 0.702978I$ $b = 0.344954 - 0.059152I$	$-2.76074 - 0.90392I$	$-8.00000 + 8.29169I$
$u = 0.693292 - 0.271817I$ $a = -1.153550 - 0.702978I$ $b = 0.344954 + 0.059152I$	$-2.76074 + 0.90392I$	$-8.00000 - 8.29169I$
$u = -0.733460 + 0.065281I$ $a = -0.382545 - 1.223710I$ $b = -1.83460 - 1.32389I$	$-2.96946 + 0.15069I$	$50.9420 - 6.6243I$
$u = -0.733460 - 0.065281I$ $a = -0.382545 + 1.223710I$ $b = -1.83460 + 1.32389I$	$-2.96946 - 0.15069I$	$50.9420 + 6.6243I$
$u = -0.698952 + 0.210701I$ $a = -2.35802 + 0.99441I$ $b = 0.121661 + 1.318110I$	$-6.82768 + 0.82988I$	$-17.2416 + 2.2447I$
$u = -0.698952 - 0.210701I$ $a = -2.35802 - 0.99441I$ $b = 0.121661 - 1.318110I$	$-6.82768 - 0.82988I$	$-17.2416 - 2.2447I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.255700 + 0.237415I$ $a = 0.056230 + 1.165950I$ $b = 0.446841 + 1.052400I$	$-3.35743 + 1.81897I$	0
$u = 1.255700 - 0.237415I$ $a = 0.056230 - 1.165950I$ $b = 0.446841 - 1.052400I$	$-3.35743 - 1.81897I$	0
$u = 1.073990 + 0.741345I$ $a = -0.808228 - 0.841791I$ $b = 0.033391 - 1.383920I$	$-6.40287 + 1.28578I$	0
$u = 1.073990 - 0.741345I$ $a = -0.808228 + 0.841791I$ $b = 0.033391 + 1.383920I$	$-6.40287 - 1.28578I$	0
$u = -0.629004 + 0.287209I$ $a = 0.96669 - 1.28469I$ $b = 0.289074 - 1.108480I$	$-1.49663 + 0.99559I$	$-12.39912 - 2.84502I$
$u = -0.629004 - 0.287209I$ $a = 0.96669 + 1.28469I$ $b = 0.289074 + 1.108480I$	$-1.49663 - 0.99559I$	$-12.39912 + 2.84502I$
$u = 0.282100 + 0.527030I$ $a = 0.630239 + 0.170161I$ $b = -0.633562 + 0.251400I$	$3.14780 + 0.17045I$	$-2.65284 + 2.77130I$
$u = 0.282100 - 0.527030I$ $a = 0.630239 - 0.170161I$ $b = -0.633562 - 0.251400I$	$3.14780 - 0.17045I$	$-2.65284 - 2.77130I$
$u = -0.560530$ $a = 0.504531$ $b = 0.446354$	-0.920531	-10.2400
$u = 0.077893 + 0.515289I$ $a = -0.22039 - 1.76338I$ $b = 0.537309 + 0.147685I$	$1.69633 + 4.51493I$	$-4.07565 - 3.55592I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.077893 - 0.515289I$ $a = -0.22039 + 1.76338I$ $b = 0.537309 - 0.147685I$	$1.69633 - 4.51493I$	$-4.07565 + 3.55592I$
$u = -0.253806 + 0.423399I$ $a = 1.79739 + 0.32795I$ $b = 0.17927 - 1.41337I$	$-2.23223 + 1.30516I$	$-8.70846 + 0.00114I$
$u = -0.253806 - 0.423399I$ $a = 1.79739 - 0.32795I$ $b = 0.17927 + 1.41337I$	$-2.23223 - 1.30516I$	$-8.70846 - 0.00114I$
$u = -0.148906 + 0.435693I$ $a = 0.851093 + 0.698214I$ $b = -0.453634 + 1.011480I$	$1.00193 - 4.19580I$	$-5.61939 + 0.53554I$
$u = -0.148906 - 0.435693I$ $a = 0.851093 - 0.698214I$ $b = -0.453634 - 1.011480I$	$1.00193 + 4.19580I$	$-5.61939 - 0.53554I$
$u = -1.54899 + 0.13119I$ $a = -0.458921 - 0.532312I$ $b = -0.453875 - 0.087559I$	$-4.84668 + 5.75436I$	0
$u = -1.54899 - 0.13119I$ $a = -0.458921 + 0.532312I$ $b = -0.453875 + 0.087559I$	$-4.84668 - 5.75436I$	0
$u = 1.56208$ $a = -0.744675$ $b = -0.707392$	-8.21010	0
$u = -0.194765 + 0.328946I$ $a = 0.927094 - 0.543449I$ $b = -0.274652 - 0.797432I$	$-0.550057 + 1.180680I$	$-6.71434 - 6.33000I$
$u = -0.194765 - 0.328946I$ $a = 0.927094 + 0.543449I$ $b = -0.274652 + 0.797432I$	$-0.550057 - 1.180680I$	$-6.71434 + 6.33000I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.63594 + 0.07265I$ $a = -0.49221 - 2.03787I$ $b = -0.21035 - 1.56875I$	$-9.51163 - 2.28865I$	0
$u = 1.63594 - 0.07265I$ $a = -0.49221 + 2.03787I$ $b = -0.21035 + 1.56875I$	$-9.51163 + 2.28865I$	0
$u = 1.65591 + 0.01982I$ $a = 1.12708 - 1.41391I$ $b = 1.88510 - 1.34051I$	$-11.46620 - 0.48828I$	0
$u = 1.65591 - 0.01982I$ $a = 1.12708 + 1.41391I$ $b = 1.88510 + 1.34051I$	$-11.46620 + 0.48828I$	0
$u = -1.65428 + 0.07783I$ $a = 0.140794 + 0.057576I$ $b = -0.803163 - 0.072746I$	$-11.09700 + 2.25616I$	0
$u = -1.65428 - 0.07783I$ $a = 0.140794 - 0.057576I$ $b = -0.803163 + 0.072746I$	$-11.09700 - 2.25616I$	0
$u = 1.65550 + 0.05326I$ $a = 0.86314 + 1.70541I$ $b = -0.324921 + 1.348630I$	$-15.2209 - 1.8009I$	0
$u = 1.65550 - 0.05326I$ $a = 0.86314 - 1.70541I$ $b = -0.324921 - 1.348630I$	$-15.2209 + 1.8009I$	0
$u = -1.67130 + 0.08386I$ $a = 0.571962 + 0.560598I$ $b = 1.40627 + 0.45907I$	$-9.37948 + 8.96392I$	0
$u = -1.67130 - 0.08386I$ $a = 0.571962 - 0.560598I$ $b = 1.40627 - 0.45907I$	$-9.37948 - 8.96392I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.67370 + 0.06775I$ $a = 0.03577 + 2.41906I$ $b = -0.14904 + 1.40818I$	$-9.88025 - 7.83088I$	0
$u = 1.67370 - 0.06775I$ $a = 0.03577 - 2.41906I$ $b = -0.14904 - 1.40818I$	$-9.88025 + 7.83088I$	0
$u = -1.69944 + 0.01339I$ $a = -0.04463 - 2.12033I$ $b = -0.18677 - 1.44922I$	$-13.55490 + 2.95411I$	0
$u = -1.69944 - 0.01339I$ $a = -0.04463 + 2.12033I$ $b = -0.18677 + 1.44922I$	$-13.55490 - 2.95411I$	0
$u = 1.71187 + 0.02596I$ $a = 0.0605613 - 0.0979481I$ $b = -0.722947 + 0.070558I$	$-11.60350 + 1.31140I$	0
$u = 1.71187 - 0.02596I$ $a = 0.0605613 + 0.0979481I$ $b = -0.722947 - 0.070558I$	$-11.60350 - 1.31140I$	0
$u = -1.70725 + 0.13135I$ $a = -0.35570 + 1.93715I$ $b = 0.54806 + 1.71252I$	$-19.0731 + 8.9271I$	0
$u = -1.70725 - 0.13135I$ $a = -0.35570 - 1.93715I$ $b = 0.54806 - 1.71252I$	$-19.0731 - 8.9271I$	0
$u = 1.70371 + 0.24470I$ $a = 0.58315 + 1.47761I$ $b = -0.33341 + 1.43214I$	$-16.0310 - 6.4382I$	0
$u = 1.70371 - 0.24470I$ $a = 0.58315 - 1.47761I$ $b = -0.33341 - 1.43214I$	$-16.0310 + 6.4382I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.72083 + 0.06542I$ $a = 0.72947 - 1.92804I$ $b = -0.275006 - 1.356000I$	$-15.8163 + 4.8861I$	0
$u = -1.72083 - 0.06542I$ $a = 0.72947 + 1.92804I$ $b = -0.275006 + 1.356000I$	$-15.8163 - 4.8861I$	0
$u = 1.72028 + 0.18203I$ $a = -0.48183 - 1.86225I$ $b = 0.50074 - 1.61966I$	$-15.9464 - 15.6846I$	0
$u = 1.72028 - 0.18203I$ $a = -0.48183 + 1.86225I$ $b = 0.50074 + 1.61966I$	$-15.9464 + 15.6846I$	0
$u = -1.78884 + 0.15629I$ $a = 0.43586 - 1.59414I$ $b = -0.29442 - 1.43542I$	$-16.5992 + 2.4652I$	0
$u = -1.78884 - 0.15629I$ $a = 0.43586 + 1.59414I$ $b = -0.29442 + 1.43542I$	$-16.5992 - 2.4652I$	0
$u = -0.0577950$ $a = 15.4136$ $b = 0.598762$	-1.41671	-4.26830

II. $I_2^u = \langle u^7 - 5u^5 + u^4 + 7u^3 - 3u^2 + b - 2u + 1,\ u^7 - 5u^5 + u^4 + 7u^3 - 4u^2 + a - 2u + 3,\ u^{14} - 10u^{12} + \cdots - 2u + 1\rangle$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^7 + 5u^5 - u^4 - 7u^3 + 4u^2 + 2u - 3 \\ -u^7 + 5u^5 - u^4 - 7u^3 + 3u^2 + 2u - 1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u^7 + 5u^5 - 2u^4 - 7u^3 + 6u^2 + 2u - 3 \\ -u^7 + 5u^5 - 2u^4 - 7u^3 + 5u^2 + 2u - 1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u^{10} + 7u^8 - 2u^7 - 17u^6 + 10u^5 + 16u^4 - 15u^3 - 4u^2 + 7u \\ -u^{10} + 7u^8 - 2u^7 - 17u^6 + 9u^5 + 16u^4 - 11u^3 - 4u^2 + 3u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^9 + 7u^7 - u^6 - 17u^5 + 5u^4 + 17u^3 - 7u^2 - 6u + 3 \\ u^3 - 2u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^{10} + 7u^8 - 3u^7 - 17u^6 + 16u^5 + 14u^4 - 25u^3 + 3u^2 + 10u - 4 \\ -u^{10} + 7u^8 - 2u^7 - 17u^6 + 10u^5 + 15u^4 - 14u^3 - u^2 + 4u - 1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^{12} + u^{11} + \cdots - 9u + 3 \\ -u^{12} + u^{11} + \cdots - 3u + 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $=$
$-u^{13}+3u^{12}+8u^{11}-28u^{10}-15u^9+99u^8-25u^7-156u^6+108u^5+92u^4-110u^3+u^2+35u-23$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{14} - 3u^{13} + \cdots - 8u + 1$
c_2	$u^{14} + 6u^{13} + \cdots + 3u + 1$
c_3	$u^{14} + 3u^{12} + u^{10} - u^9 - 5u^8 - 2u^7 - 5u^6 + u^3 + 2u^2 + u + 1$
c_4	$u^{14} + u^{13} + 2u^{12} + u^{11} - 5u^8 - 2u^7 - 5u^6 - u^5 + u^4 + 3u^2 + 1$
c_5	$u^{14} - 6u^{13} + \cdots - 3u + 1$
c_6, c_7	$u^{14} - 10u^{12} + \cdots + 2u + 1$
c_8	$u^{14} - u^{13} + 2u^{12} - u^{11} - 5u^8 + 2u^7 - 5u^6 + u^5 + u^4 + 3u^2 + 1$
c_9	$u^{14} + u^{13} + \cdots - 13u + 3$
c_{10}	$u^{14} + 3u^{12} + u^{10} + u^9 - 5u^8 + 2u^7 - 5u^6 - u^3 + 2u^2 - u + 1$
c_{11}, c_{12}	$u^{14} - 10u^{12} + \cdots - 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{14} - y^{13} + \cdots - 16y + 1$
c_2, c_5	$y^{14} - 14y^{13} + \cdots - 5y + 1$
c_3, c_{10}	$y^{14} + 6y^{13} + \cdots + 3y + 1$
c_4, c_8	$y^{14} + 3y^{13} + \cdots + 6y + 1$
c_6, c_7, c_{11} c_{12}	$y^{14} - 20y^{13} + \cdots - 8y + 1$
c_9	$y^{14} - 3y^{13} + \cdots - 367y + 9$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.769273 + 0.499501I$ $a = -1.56602 - 0.52282I$ $b = 0.091706 - 1.291320I$	$-6.35538 - 1.76661I$	$-11.51225 + 3.46978I$
$u = 0.769273 - 0.499501I$ $a = -1.56602 + 0.52282I$ $b = 0.091706 + 1.291320I$	$-6.35538 + 1.76661I$	$-11.51225 - 3.46978I$
$u = -0.796065$ $a = -0.323376$ $b = 1.04290$	-3.10490	-12.3270
$u = 1.235030 + 0.234166I$ $a = -0.21622 + 1.52053I$ $b = 0.313310 + 0.942121I$	$-2.96355 + 3.01467I$	$-12.7328 - 6.3955I$
$u = 1.235030 - 0.234166I$ $a = -0.21622 - 1.52053I$ $b = 0.313310 - 0.942121I$	$-2.96355 - 3.01467I$	$-12.7328 + 6.3955I$
$u = -1.49700 + 0.09797I$ $a = 0.579846 + 0.369336I$ $b = 0.348422 + 0.662650I$	$-5.58734 + 6.30976I$	$-15.1896 - 6.5023I$
$u = -1.49700 - 0.09797I$ $a = 0.579846 - 0.369336I$ $b = 0.348422 - 0.662650I$	$-5.58734 - 6.30976I$	$-15.1896 + 6.5023I$
$u = 1.54154$ $a = 1.13801$ $b = 0.761672$	-8.65121	-25.5320
$u = -0.422763$ $a = -2.69875$ $b = -0.877477$	-1.82255	-28.5550
$u = 0.221437 + 0.280509I$ $a = -2.37781 + 0.90237I$ $b = -0.348156 + 0.778139I$	$0.41125 - 4.94330I$	$-12.3996 + 6.8028I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.221437 - 0.280509I$ $a = -2.37781 - 0.90237I$ $b = -0.348156 - 0.778139I$	$0.41125 + 4.94330I$	$-12.3996 - 6.8028I$
$u = 1.67943$ $a = -0.353377$ $b = -1.17385$	-11.9636	-13.8850
$u = -1.72981 + 0.10668I$ $a = 0.69894 - 1.68693I$ $b = -0.281906 - 1.317870I$	$-15.5021 + 4.1610I$	$-13.01637 + 0.23068I$
$u = -1.72981 - 0.10668I$ $a = 0.69894 + 1.68693I$ $b = -0.281906 + 1.317870I$	$-15.5021 - 4.1610I$	$-13.01637 - 0.23068I$

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

(i) Arc colorings

$$a_7 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} a \\ a+1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -1 \\ -1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} a+1 \\ a+2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} a \\ a+1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ a \end{pmatrix}$$
$$a_4 = \begin{pmatrix} a \\ a \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ a \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -15$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.00000$ $a = -0.500000 + 0.866025I$ $b = 0.500000 + 0.866025I$	-3.28987	-15.0000
$u = -1.00000$ $a = -0.500000 - 0.866025I$ $b = 0.500000 - 0.866025I$	-3.28987	-15.0000

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^2-u+1)(u^{14}-3u^{13}+\cdots-8u+1)(u^{77}-9u^{76}+\cdots-22u+1)$
c_2	$((u-1)^2)(u^{14}+6u^{13}+\cdots+3u+1)(u^{77}+u^{76}+\cdots+6201u+108)$
c_3	$(u^2+u+1)(u^{14}+3u^{12}+\cdots+u+1)$ $\cdot(u^{77}+33u^{75}+\cdots-4491u-361)$
c_4	$(u^2+u+1)(u^{14}+u^{13}+\cdots+3u^2+1)$ $\cdot(u^{77}+3u^{76}+\cdots-368u-79)$
c_5	$((u+1)^2)(u^{14}-6u^{13}+\cdots-3u+1)(u^{77}+u^{76}+\cdots+6201u+108)$
c_6, c_7	$((u-1)^2)(u^{14}-10u^{12}+\cdots+2u+1)(u^{77}-u^{76}+\cdots-267u-11)$
c_8	$(u^2-u+1)(u^{14}-u^{13}+\cdots+3u^2+1)$ $\cdot(u^{77}+3u^{76}+\cdots-368u-79)$
c_9	$u^2(u^{14}+u^{13}+\cdots-13u+3)(u^{77}+6u^{76}+\cdots+12u+8)$
c_{10}	$(u^2-u+1)(u^{14}+3u^{12}+\cdots-u+1)$ $\cdot(u^{77}+33u^{75}+\cdots-4491u-361)$
c_{11}, c_{12}	$((u+1)^2)(u^{14}-10u^{12}+\cdots-2u+1)(u^{77}-u^{76}+\cdots-267u-11)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^2+y+1)(y^{14}-y^{13}+\cdots-16y+1)(y^{77}-5y^{76}+\cdots+70y-1)$
c_2, c_5	$((y-1)^2)(y^{14}-14y^{13}+\cdots-5y+1)$ $\cdot\,(y^{77}-73y^{76}+\cdots+14541849y-11664)$
c_3, c_{10}	$(y^2+y+1)(y^{14}+6y^{13}+\cdots+3y+1)$ $\cdot\,(y^{77}+66y^{76}+\cdots+8226479y-130321)$
c_4, c_8	$(y^2+y+1)(y^{14}+3y^{13}+\cdots+6y+1)$ $\cdot\,(y^{77}+35y^{76}+\cdots-116112y-6241)$
c_6, c_7, c_{11} c_{12}	$((y-1)^2)(y^{14}-20y^{13}+\cdots-8y+1)$ $\cdot\,(y^{77}-99y^{76}+\cdots+37057y-121)$
c_9	$y^2(y^{14}-3y^{13}+\cdots-367y+9)(y^{77}-12y^{76}+\cdots+2032y-64)$