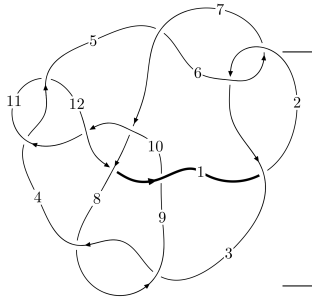
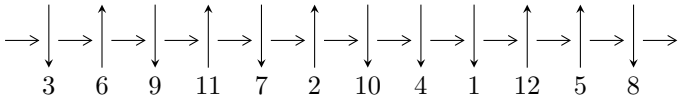
$12a_{0403}$ $(K12a_{0403})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$$\underset{c_4}{4,11} \to \underset{c_8}{5,8} \to \underset{c_{11}}{9} \to \underset{c_{12}}{12} \to \underset{c_3}{1} \longrightarrow \underset{c_{10}}{3} \to \underset{c_7}{10} \to \underset{c_5}{7} \longrightarrow \underset{c_2}{6} \longrightarrow 2 \longrightarrow\!\!\!\!\rightarrow c_1, c_6, c_9$$

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

$$I_1^u = \langle -1.61209 \times 10^{254} u^{129} - 2.93112 \times 10^{253} u^{128} + \cdots + 1.53311 \times 10^{253} b - 1.71265 \times 10^{254},$$
$$- 6.10829 \times 10^{254} u^{129} - 1.85917 \times 10^{254} u^{128} + \cdots + 1.53311 \times 10^{253} a - 8.27337 \times 10^{254},$$
$$u^{130} + u^{129} + \cdots - 9u^2 + 1 \rangle$$
$$I_2^u = \langle -u^{25} + 6u^{23} + \cdots - 2u^2 + b,\ -6u^{25} + 36u^{23} + \cdots + a - 2,\ u^{26} - 7u^{24} + \cdots - 2u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 156 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. $\boldsymbol{I_1^u = \langle -1.61 \times 10^{254} u^{129} - 2.93 \times 10^{253} u^{128} + \cdots + 1.53 \times 10^{253} b - 1.71 \times 10^{254},\ -6.11 \times 10^{254} u^{129} - 1.86 \times 10^{254} u^{128} + \cdots + 1.53 \times 10^{253} a - 8.27 \times 10^{254},\ u^{130} + u^{129} + \cdots - 9u^2 + 1 \rangle}$

(i) Arc colorings

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

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

$$a_5 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 39.8424u^{129} + 12.1268u^{128} + \cdots - 71.6792u + 53.9645 \\ 10.5152u^{129} + 1.91187u^{128} + \cdots - 19.4022u + 11.1711 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 29.3273u^{129} + 10.2149u^{128} + \cdots - 52.2770u + 42.7935 \\ 10.5152u^{129} + 1.91187u^{128} + \cdots - 19.4022u + 11.1711 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 14.5228u^{129} + 3.05728u^{128} + \cdots - 20.5663u + 22.8793 \\ 2.96961u^{129} - 0.00148500u^{128} + \cdots - 0.904318u + 1.33697 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 11.2281u^{129} + 6.52844u^{128} + \cdots - 48.1159u + 19.9734 \\ 22.1475u^{129} + 5.96944u^{128} + \cdots - 36.2059u + 29.8117 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u^3 \\ u^5 - u^3 + u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 47.7274u^{129} + 14.7604u^{128} + \cdots - 89.6195u + 65.9458 \\ -3.06650u^{129} - 2.28554u^{128} + \cdots + 5.85600u - 7.67098 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -24.2358u^{129} - 12.7252u^{128} + \cdots + 81.9825u - 40.8265 \\ -19.2228u^{129} - 3.74986u^{128} + \cdots + 25.3360u - 23.6219 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -55.0363u^{129} - 15.5769u^{128} + \cdots + 89.7412u - 73.3056 \\ 11.3693u^{129} + 6.04628u^{128} + \cdots - 21.2891u + 20.2649 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -71.0846u^{129} - 21.4994u^{128} + \cdots + 150.345u - 94.8308$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{130} + 40u^{129} + \cdots + 5243u + 361$
c_2, c_6	$u^{130} - 2u^{129} + \cdots + 37u + 19$
c_3, c_8	$u^{130} + u^{129} + \cdots + 35584u + 5216$
c_4, c_{11}	$u^{130} + u^{129} + \cdots - 9u^2 + 1$
c_7	$u^{130} - 21u^{129} + \cdots - 17072u + 911$
c_9	$u^{130} - 11u^{129} + \cdots - 29278734u + 4023961$
c_{10}	$u^{130} - 61u^{129} + \cdots - 18u + 1$
c_{12}	$u^{130} + 3u^{129} + \cdots - 44u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{130} + 112y^{129} + \cdots - 2411101y + 130321$
c_2, c_6	$y^{130} + 40y^{129} + \cdots + 5243y + 361$
c_3, c_8	$y^{130} + 105y^{129} + \cdots + 1506854912y + 27206656$
c_4, c_{11}	$y^{130} - 61y^{129} + \cdots - 18y + 1$
c_7	$y^{130} + 7y^{129} + \cdots + 22601312y + 829921$
c_9	$y^{130} + 43y^{129} + \cdots + 1129554070125350y + 16192262129521$
c_{10}	$y^{130} + 27y^{129} + \cdots - 2y + 1$
c_{12}	$y^{130} + 11y^{129} + \cdots - 58y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.509202 + 0.855011I$ $a = 0.498772 + 0.094758I$ $b = 0.713093 + 0.527371I$	$0.96251 + 3.30480I$	0
$u = 0.509202 - 0.855011I$ $a = 0.498772 - 0.094758I$ $b = 0.713093 - 0.527371I$	$0.96251 - 3.30480I$	0
$u = -0.593875 + 0.798496I$ $a = -0.530730 + 0.097682I$ $b = -0.717692 + 0.391003I$	$0.88654 + 2.08195I$	0
$u = -0.593875 - 0.798496I$ $a = -0.530730 - 0.097682I$ $b = -0.717692 - 0.391003I$	$0.88654 - 2.08195I$	0
$u = 0.929958 + 0.347996I$ $a = -0.39585 + 2.09328I$ $b = -0.072294 - 1.251870I$	$1.64061 + 1.38142I$	0
$u = 0.929958 - 0.347996I$ $a = -0.39585 - 2.09328I$ $b = -0.072294 + 1.251870I$	$1.64061 - 1.38142I$	0
$u = 0.336256 + 0.927806I$ $a = -0.796971 - 0.702839I$ $b = -0.50671 - 1.40838I$	$6.33931 - 6.81283I$	0
$u = 0.336256 - 0.927806I$ $a = -0.796971 + 0.702839I$ $b = -0.50671 + 1.40838I$	$6.33931 + 6.81283I$	0
$u = -0.356381 + 0.955007I$ $a = 0.767059 - 0.713200I$ $b = 0.56789 - 1.39939I$	$5.44198 + 13.02370I$	0
$u = -0.356381 - 0.955007I$ $a = 0.767059 + 0.713200I$ $b = 0.56789 + 1.39939I$	$5.44198 - 13.02370I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.886456+0.404689I$ $a=1.052930-0.210641I$ $b=-0.13292+1.68907I$	$3.50487-1.67509I$	0
$u=-0.886456-0.404689I$ $a=1.052930+0.210641I$ $b=-0.13292-1.68907I$	$3.50487+1.67509I$	0
$u=0.898105+0.357327I$ $a=0.097358+0.234710I$ $b=0.463027+0.463519I$	$1.46242+0.99189I$	0
$u=0.898105-0.357327I$ $a=0.097358-0.234710I$ $b=0.463027-0.463519I$	$1.46242-0.99189I$	0
$u=-0.447773+0.854757I$ $a=0.812166-0.852742I$ $b=0.464138-1.182520I$	$-1.61430+7.18134I$	0
$u=-0.447773-0.854757I$ $a=0.812166+0.852742I$ $b=0.464138+1.182520I$	$-1.61430-7.18134I$	0
$u=0.028408+1.047450I$ $a=0.0298168+0.0526718I$ $b=0.055674+1.089630I$	$1.38168-2.83301I$	0
$u=0.028408-1.047450I$ $a=0.0298168-0.0526718I$ $b=0.055674-1.089630I$	$1.38168+2.83301I$	0
$u=0.918248+0.516584I$ $a=-1.090820-0.672028I$ $b=-0.592103-0.453901I$	$-2.07416+1.17631I$	0
$u=0.918248-0.516584I$ $a=-1.090820+0.672028I$ $b=-0.592103+0.453901I$	$-2.07416-1.17631I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.068390 + 0.036367I$ $a = -0.533392 + 0.719934I$ $b = 0.714329 + 0.427397I$	$6.74599 + 0.88495I$	0
$u = 1.068390 - 0.036367I$ $a = -0.533392 - 0.719934I$ $b = 0.714329 - 0.427397I$	$6.74599 - 0.88495I$	0
$u = -1.068140 + 0.048453I$ $a = 0.641132 - 0.806807I$ $b = -0.639749 - 0.326044I$	$6.57717 - 5.20705I$	0
$u = -1.068140 - 0.048453I$ $a = 0.641132 + 0.806807I$ $b = -0.639749 + 0.326044I$	$6.57717 + 5.20705I$	0
$u = 0.474333 + 0.793750I$ $a = 1.42633 + 0.52913I$ $b = 1.248970 - 0.024063I$	$1.04631 - 6.72480I$	0
$u = 0.474333 - 0.793750I$ $a = 1.42633 - 0.52913I$ $b = 1.248970 + 0.024063I$	$1.04631 + 6.72480I$	0
$u = -0.211878 + 0.899654I$ $a = 0.113596 + 0.471206I$ $b = 0.011925 + 0.653406I$	$0.00846 + 2.26955I$	0
$u = -0.211878 - 0.899654I$ $a = 0.113596 - 0.471206I$ $b = 0.011925 - 0.653406I$	$0.00846 - 2.26955I$	0
$u = 1.043040 + 0.310087I$ $a = -0.674633 - 0.168313I$ $b = 0.299402 + 1.302380I$	$3.23987 + 0.66096I$	0
$u = 1.043040 - 0.310087I$ $a = -0.674633 + 0.168313I$ $b = 0.299402 - 1.302380I$	$3.23987 - 0.66096I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.897876+0.622451I$ $a=-0.296316-0.114995I$ $b=-0.320580+0.185209I$	$-2.27994-2.54935I$	0
$u=-0.897876-0.622451I$ $a=-0.296316+0.114995I$ $b=-0.320580-0.185209I$	$-2.27994+2.54935I$	0
$u=\ \ 0.928047+0.579200I$ $a=-1.51608+0.04825I$ $b=-0.440217+1.167940I$	$2.19268+2.92591I$	0
$u=\ \ 0.928047-0.579200I$ $a=-1.51608-0.04825I$ $b=-0.440217-1.167940I$	$2.19268-2.92591I$	0
$u=\ \ 0.220666+0.875804I$ $a=\ \ 0.300745-0.078929I$ $b=\ \ 0.351467+0.742803I$	$-2.79081+0.10686I$	0
$u=\ \ 0.220666-0.875804I$ $a=\ \ 0.300745+0.078929I$ $b=\ \ 0.351467-0.742803I$	$-2.79081-0.10686I$	0
$u=\ \ 0.733722+0.522464I$ $a=\ \ 2.00650+0.68004I$ $b=\ \ 0.458631-0.614991I$	$-2.65495+3.05687I$	0
$u=\ \ 0.733722-0.522464I$ $a=\ \ 2.00650-0.68004I$ $b=\ \ 0.458631+0.614991I$	$-2.65495-3.05687I$	0
$u=\ \ 1.018030+0.428584I$ $a=-2.47019-0.62683I$ $b=-0.77431+1.54050I$	$8.63578+2.19944I$	0
$u=\ \ 1.018030-0.428584I$ $a=-2.47019+0.62683I$ $b=-0.77431-1.54050I$	$8.63578-2.19944I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.093750+0.174999I$ $a=\ 0.133531+1.114560I$ $b=\ 0.161207-1.343210I$	$6.83965+1.22941I$	0
$u=-1.093750-0.174999I$ $a=\ 0.133531-1.114560I$ $b=\ 0.161207+1.343210I$	$6.83965-1.22941I$	0
$u=\ 0.574040+0.681094I$ $a=\ 1.57386+0.49447I$ $b=\ 0.911480-0.289310I$	$-4.47776-2.24725I$	0
$u=\ 0.574040-0.681094I$ $a=\ 1.57386-0.49447I$ $b=\ 0.911480+0.289310I$	$-4.47776+2.24725I$	0
$u=-0.436725+0.773229I$ $a=-1.40280+0.51435I$ $b=-1.193450+0.090443I$	$1.55877+0.93798I$	0
$u=-0.436725-0.773229I$ $a=-1.40280-0.51435I$ $b=-1.193450-0.090443I$	$1.55877-0.93798I$	0
$u=-1.035340+0.414778I$ $a=-2.73292+0.89742I$ $b=\ 0.078187-1.142140I$	$8.56238+2.68143I$	0
$u=-1.035340-0.414778I$ $a=-2.73292-0.89742I$ $b=\ 0.078187+1.142140I$	$8.56238-2.68143I$	0
$u=-0.699029+0.876284I$ $a=\ 0.592966+0.288657I$ $b=\ 0.235687+0.794846I$	$-2.68901-3.02344I$	0
$u=-0.699029-0.876284I$ $a=\ 0.592966-0.288657I$ $b=\ 0.235687-0.794846I$	$-2.68901+3.02344I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.037120+0.434056I$ $a=\ \ 2.37149-0.79565I$ $b=\ \ 0.85425+1.50772I$	$8.48786-8.38623I$	0
$u=-1.037120-0.434056I$ $a=\ \ 2.37149+0.79565I$ $b=\ \ 0.85425-1.50772I$	$8.48786+8.38623I$	0
$u=-1.025120+0.473164I$ $a=\ \ 0.959278+0.006573I$ $b=-0.49173+1.75681I$	$8.32612-4.06036I$	0
$u=-1.025120-0.473164I$ $a=\ \ 0.959278-0.006573I$ $b=-0.49173-1.75681I$	$8.32612+4.06036I$	0
$u=\ \ 1.050630+0.454744I$ $a=-0.917953+0.022366I$ $b=\ \ 0.55173+1.68716I$	$8.32473-1.80064I$	0
$u=\ \ 1.050630-0.454744I$ $a=-0.917953-0.022366I$ $b=\ \ 0.55173-1.68716I$	$8.32473+1.80064I$	0
$u=-1.063180+0.430937I$ $a=-0.58849+1.63017I$ $b=-0.058016-1.400000I$	$9.39396-2.84669I$	0
$u=-1.063180-0.430937I$ $a=-0.58849-1.63017I$ $b=-0.058016+1.400000I$	$9.39396+2.84669I$	0
$u=\ \ 1.057120+0.445625I$ $a=\ \ 2.65397+0.82316I$ $b=-0.013916-1.207510I$	$9.30866+3.97637I$	0
$u=\ \ 1.057120-0.445625I$ $a=\ \ 2.65397-0.82316I$ $b=-0.013916+1.207510I$	$9.30866-3.97637I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.027220+0.512813I$ $a=\ \ 1.059940-0.790013I$ $b=\ \ 0.639379+0.032364I$	$0.24648-4.79938I$	0
$u=-1.027220-0.512813I$ $a=\ \ 1.059940+0.790013I$ $b=\ \ 0.639379-0.032364I$	$0.24648+4.79938I$	0
$u=\ \ 1.046340+0.473482I$ $a=\ \ 0.82440+1.66113I$ $b=\ \ 0.134896-1.384340I$	$8.14841+9.22541I$	0
$u=\ \ 1.046340-0.473482I$ $a=\ \ 0.82440-1.66113I$ $b=\ \ 0.134896+1.384340I$	$8.14841-9.22541I$	0
$u=-0.545276+0.639606I$ $a=\ \ 1.03442-1.26175I$ $b=\ \ 0.186702-1.005950I$	$-1.52110-0.44227I$	0
$u=-0.545276-0.639606I$ $a=\ \ 1.03442+1.26175I$ $b=\ \ 0.186702+1.005950I$	$-1.52110+0.44227I$	0
$u=\ \ 0.390450+0.737700I$ $a=-1.016130-0.865046I$ $b=-0.272120-1.212660I$	$2.18674-3.50290I$	0
$u=\ \ 0.390450-0.737700I$ $a=-1.016130+0.865046I$ $b=-0.272120+1.212660I$	$2.18674+3.50290I$	0
$u=-1.027540+0.567181I$ $a=-2.49518+0.12348I$ $b=-0.247361-1.113590I$	$-0.07817-4.30151I$	0
$u=-1.027540-0.567181I$ $a=-2.49518-0.12348I$ $b=-0.247361+1.113590I$	$-0.07817+4.30151I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.014170 + 0.597274I$ $a = -0.940366 - 0.823964I$ $b = -1.074860 - 0.153736I$	$-3.16292 + 7.20298I$	0
$u = 1.014170 - 0.597274I$ $a = -0.940366 + 0.823964I$ $b = -1.074860 + 0.153736I$	$-3.16292 - 7.20298I$	0
$u = 0.572558 + 0.577570I$ $a = -0.705746 + 0.987178I$ $b = 0.013116 + 0.994231I$	$1.31462 + 1.52913I$	0
$u = 0.572558 - 0.577570I$ $a = -0.705746 - 0.987178I$ $b = 0.013116 - 0.994231I$	$1.31462 - 1.52913I$	0
$u = -1.063620 + 0.531182I$ $a = 1.55039 - 0.68243I$ $b = 0.782288 + 1.041320I$	$1.77649 - 6.14291I$	0
$u = -1.063620 - 0.531182I$ $a = 1.55039 + 0.68243I$ $b = 0.782288 - 1.041320I$	$1.77649 + 6.14291I$	0
$u = 1.217100 + 0.002384I$ $a = -0.124676 + 0.695374I$ $b = -0.229100 - 1.224820I$	$4.39391 - 4.92277I$	0
$u = 1.217100 - 0.002384I$ $a = -0.124676 - 0.695374I$ $b = -0.229100 + 1.224820I$	$4.39391 + 4.92277I$	0
$u = 1.098210 + 0.580537I$ $a = 2.15399 + 0.42030I$ $b = 0.334891 - 1.275500I$	$4.25585 + 8.51800I$	0
$u = 1.098210 - 0.580537I$ $a = 2.15399 - 0.42030I$ $b = 0.334891 + 1.275500I$	$4.25585 - 8.51800I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.742640+0.141328I$ $a=-0.548019+0.622648I$ $b=-0.702422+0.357995I$	$-0.37001+2.09887I$	0
$u=-0.742640-0.141328I$ $a=-0.548019-0.622648I$ $b=-0.702422-0.357995I$	$-0.37001-2.09887I$	0
$u=-1.090340+0.601151I$ $a=\ \ 0.980753-1.010810I$ $b=\ \ 1.350370+0.221650I$	$3.49795-6.12050I$	0
$u=-1.090340-0.601151I$ $a=\ \ 0.980753+1.010810I$ $b=\ \ 1.350370-0.221650I$	$3.49795+6.12050I$	0
$u=\ \ 1.084980+0.619553I$ $a=-0.924365-1.002590I$ $b=-1.41403+0.11587I$	$2.87577+12.03660I$	0
$u=\ \ 1.084980-0.619553I$ $a=-0.924365+1.002590I$ $b=-1.41403-0.11587I$	$2.87577-12.03660I$	0
$u=\ \ 1.133690+0.553168I$ $a=-0.000590-0.160050I$ $b=\ \ 0.035890+0.456952I$	$3.41271+2.44811I$	0
$u=\ \ 1.133690-0.553168I$ $a=-0.000590+0.160050I$ $b=\ \ 0.035890-0.456952I$	$3.41271-2.44811I$	0
$u=-1.167180+0.515546I$ $a=\ \ 1.069000-0.655136I$ $b=\ \ 0.238612+0.704018I$	$0.90160-4.47290I$	0
$u=-1.167180-0.515546I$ $a=\ \ 1.069000+0.655136I$ $b=\ \ 0.238612-0.704018I$	$0.90160+4.47290I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.112320+0.635463I$ $a=-1.89464+0.36130I$ $b=-0.502155-1.267660I$	$0.39031-12.70120I$	0
$u=-1.112320-0.635463I$ $a=-1.89464-0.36130I$ $b=-0.502155+1.267660I$	$0.39031+12.70120I$	0
$u=1.011570+0.788432I$ $a=-0.942662-0.191153I$ $b=-0.524442+0.980159I$	$2.49357+2.66977I$	0
$u=1.011570-0.788432I$ $a=-0.942662+0.191153I$ $b=-0.524442-0.980159I$	$2.49357-2.66977I$	0
$u=-0.713494+0.051821I$ $a=0.46859+2.36936I$ $b=-0.629327+0.996235I$	$6.73505+5.39971I$	$0.-6.67137I$
$u=-0.713494-0.051821I$ $a=0.46859-2.36936I$ $b=-0.629327-0.996235I$	$6.73505-5.39971I$	$0.+6.67137I$
$u=-0.646455+0.301912I$ $a=-2.48015+0.20229I$ $b=-0.119522-0.300141I$	$-1.50794+0.96189I$	$0.+4.47878I$
$u=-0.646455-0.301912I$ $a=-2.48015-0.20229I$ $b=-0.119522+0.300141I$	$-1.50794-0.96189I$	$0.-4.47878I$
$u=-0.957768+0.861014I$ $a=0.795400-0.118655I$ $b=0.518069+0.870445I$	$1.93562-8.08524I$	0
$u=-0.957768-0.861014I$ $a=0.795400+0.118655I$ $b=0.518069-0.870445I$	$1.93562+8.08524I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.131660+0.644889I$ $a=-0.017855-0.210815I$ $b=\ \ 0.031068+0.357068I$	$2.53554-7.99505I$	0
$u=-1.131660-0.644889I$ $a=-0.017855+0.210815I$ $b=\ \ 0.031068-0.357068I$	$2.53554+7.99505I$	0
$u=-0.414707+0.543229I$ $a=-1.44411-0.01878I$ $b=-0.514799+0.077401I$	$-1.46765+0.55316I$	$-5.51938+0.I$
$u=-0.414707-0.543229I$ $a=-1.44411+0.01878I$ $b=-0.514799-0.077401I$	$-1.46765-0.55316I$	$-5.51938+0.I$
$u=\ \ 1.177350+0.622821I$ $a=\ \ 1.83782+0.61130I$ $b=\ \ 0.52036-1.47796I$	$8.8896+12.4584I$	0
$u=\ \ 1.177350-0.622821I$ $a=\ \ 1.83782-0.61130I$ $b=\ \ 0.52036+1.47796I$	$8.8896-12.4584I$	0
$u=\ \ 0.656339+0.094283I$ $a=-0.81649+2.49011I$ $b=\ \ 0.516044+1.118270I$	$7.08904+0.85513I$	$1.55916+0.67065I$
$u=\ \ 0.656339-0.094283I$ $a=-0.81649-2.49011I$ $b=\ \ 0.516044-1.118270I$	$7.08904-0.85513I$	$1.55916-0.67065I$
$u=-1.182400+0.638531I$ $a=-1.78274+0.60295I$ $b=-0.57484-1.48147I$	$7.9638-18.8078I$	0
$u=-1.182400-0.638531I$ $a=-1.78274-0.60295I$ $b=-0.57484+1.48147I$	$7.9638+18.8078I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.334980+0.164328I$ $a=-0.177999+0.766681I$ $b=\ \ 0.36863-1.38282I$	$12.10840+3.22937I$	0
$u=-1.334980-0.164328I$ $a=-0.177999-0.766681I$ $b=\ \ 0.36863+1.38282I$	$12.10840-3.22937I$	0
$u=\ \ 1.192810+0.658574I$ $a=-1.032600-0.496487I$ $b=-0.367166+1.083900I$	$0.02804+5.58104I$	0
$u=\ \ 1.192810-0.658574I$ $a=-1.032600+0.496487I$ $b=-0.367166-1.083900I$	$0.02804-5.58104I$	0
$u=\ \ 1.361470+0.138376I$ $a=\ \ 0.172454+0.713289I$ $b=-0.405011-1.350940I$	$11.4886-9.4027I$	0
$u=\ \ 1.361470-0.138376I$ $a=\ \ 0.172454-0.713289I$ $b=-0.405011+1.350940I$	$11.4886+9.4027I$	0
$u=-0.546821+0.289592I$ $a=\ \ 1.65444-0.59936I$ $b=\ \ 0.29617+1.57490I$	$6.75520+0.38557I$	$2.34221-0.35524I$
$u=-0.546821-0.289592I$ $a=\ \ 1.65444+0.59936I$ $b=\ \ 0.29617-1.57490I$	$6.75520-0.38557I$	$2.34221+0.35524I$
$u=-0.283388+0.519595I$ $a=-0.676958+0.981576I$ $b=-0.490870+0.746722I$	$-0.19821+1.81881I$	$-1.33857-4.79331I$
$u=-0.283388-0.519595I$ $a=-0.676958-0.981576I$ $b=-0.490870-0.746722I$	$-0.19821-1.81881I$	$-1.33857+4.79331I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.30321+0.58172I$ $a=\ \ 0.979124-0.580119I$ $b=\ \ 0.040159+1.134350I$	$5.36580-2.86946I$	0
$u=-1.30321-0.58172I$ $a=\ \ 0.979124+0.580119I$ $b=\ \ 0.040159-1.134350I$	$5.36580+2.86946I$	0
$u=\ \ 1.30315+0.61083I$ $a=-0.976012-0.565796I$ $b=-0.101153+1.189320I$	$5.18512+8.70691I$	0
$u=\ \ 1.30315-0.61083I$ $a=-0.976012+0.565796I$ $b=-0.101153-1.189320I$	$5.18512-8.70691I$	0
$u=\ \ 0.358009+0.283890I$ $a=-0.12358+1.66560I$ $b=-0.310074-1.372760I$	$6.25007-5.48107I$	$0.40688+4.78655I$
$u=\ \ 0.358009-0.283890I$ $a=-0.12358-1.66560I$ $b=-0.310074+1.372760I$	$6.25007+5.48107I$	$0.40688-4.78655I$
$u=\ \ 0.275587+0.254235I$ $a=-2.79143-0.53864I$ $b=-0.44112+1.43396I$	$6.29133+5.39143I$	$1.63868-5.15803I$
$u=\ \ 0.275587-0.254235I$ $a=-2.79143+0.53864I$ $b=-0.44112-1.43396I$	$6.29133-5.39143I$	$1.63868+5.15803I$
$u=-0.038310+0.320823I$ $a=-2.25277+1.23206I$ $b=\ \ 0.226328-1.341380I$	$6.98931-0.56807I$	$2.24564+0.98261I$
$u=-0.038310-0.320823I$ $a=-2.25277-1.23206I$ $b=\ \ 0.226328+1.341380I$	$6.98931+0.56807I$	$2.24564-0.98261I$

II. $I_2^u =$
$\langle -u^{25}+6u^{23}+\cdots-2u^2+b,\ -6u^{25}+36u^{23}+\cdots+a-2,\ u^{26}-7u^{24}+\cdots-2u+1\rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 6u^{25} - 36u^{23} + \cdots + 3u^2 + 2 \\ u^{25} - 6u^{23} + \cdots + 5u^3 + 2u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 5u^{25} - 30u^{23} + \cdots + u^2 + 2 \\ u^{25} - 6u^{23} + \cdots + 5u^3 + 2u^2 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 3u^{25} - 24u^{23} + \cdots - 9u - 3 \\ -u^{25} + 7u^{23} + \cdots - 2u^2 + u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^{25} - 4u^{24} + \cdots - 19u + 10 \\ -5u^{24} + 31u^{22} + \cdots - 12u + 6 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^3 \\ u^5 - u^3 + u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 10u^{25} - 61u^{23} + \cdots - 5u + 2 \\ -3u^{25} + 19u^{23} + \cdots - 8u^2 + 4u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 11u^{25} - 2u^{24} + \cdots + 6u - 7 \\ -3u^{25} + 9u^{24} + \cdots + 28u - 12 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 10u^{25} - 4u^{24} + \cdots - 32u + 7 \\ 5u^{25} - 5u^{24} + \cdots - 7u + 6 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 15u^{25} - 11u^{24} - 82u^{23} + 66u^{22} + 264u^{21} - 222u^{20} - 523u^{19} + 453u^{18} + 725u^{17} - 534u^{16} - 690u^{15} + 134u^{14} + 450u^{13} + 750u^{12} - 60u^{11} - 1510u^{10} - 366u^9 + 1511u^8 + 679u^7 - 881u^6 - 619u^5 + 300u^4 + 313u^3 - 62u^2 - 68u + 18$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{26} - 11u^{25} + \cdots - 19u + 1$
c_2	$u^{26} - u^{25} + \cdots - u + 1$
c_3	$u^{26} + 14u^{24} + \cdots - 2u + 1$
c_4	$u^{26} - 7u^{24} + \cdots - 2u + 1$
c_6	$u^{26} + u^{25} + \cdots + u + 1$
c_7	$u^{26} + 2u^{25} + \cdots - 6u + 1$
c_8	$u^{26} + 14u^{24} + \cdots + 2u + 1$
c_9	$u^{26} + 2u^{25} + \cdots + 2u + 1$
c_{10}	$u^{26} + 14u^{25} + \cdots + 14u + 1$
c_{11}	$u^{26} - 7u^{24} + \cdots + 2u + 1$
c_{12}	$u^{26} - 2u^{25} + \cdots - 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{26} + 19y^{25} + \cdots - 25y + 1$
c_2, c_6	$y^{26} + 11y^{25} + \cdots + 19y + 1$
c_3, c_8	$y^{26} + 28y^{25} + \cdots + 24y + 1$
c_4, c_{11}	$y^{26} - 14y^{25} + \cdots - 14y + 1$
c_7	$y^{26} - 2y^{25} + \cdots - 8y + 1$
c_9	$y^{26} - 6y^{25} + \cdots + 6y + 1$
c_{10}	$y^{26} + 6y^{25} + \cdots + 18y + 1$
c_{12}	$y^{26} + 6y^{25} + \cdots - 6y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.926438+0.306095I$ $a=\ \ 1.161680-0.169903I$ $b=-0.11797+1.58451I$	$3.99706-1.26540I$	$8.60332-0.25195I$
$u=-0.926438-0.306095I$ $a=\ \ 1.161680+0.169903I$ $b=-0.11797-1.58451I$	$3.99706+1.26540I$	$8.60332+0.25195I$
$u=\ \ 0.894971+0.381321I$ $a=\ \ 0.03540-1.47493I$ $b=\ \ 0.082105+1.269800I$	$1.22514+1.58254I$	$-6.40670-6.12006I$
$u=\ \ 0.894971-0.381321I$ $a=\ \ 0.03540+1.47493I$ $b=\ \ 0.082105-1.269800I$	$1.22514-1.58254I$	$-6.40670+6.12006I$
$u=-0.091046+1.054860I$ $a=-0.0530006-0.0360406I$ $b=\ \ 0.002467+0.501029I$	$-0.49439+2.47097I$	$-12.11732-4.76657I$
$u=-0.091046-1.054860I$ $a=-0.0530006+0.0360406I$ $b=\ \ 0.002467-0.501029I$	$-0.49439-2.47097I$	$-12.11732+4.76657I$
$u=-1.010200+0.341957I$ $a=\ \ 1.75122-1.35815I$ $b=\ \ 0.28529+1.50200I$	$8.40045-0.93571I$	$5.10679+0.20470I$
$u=-1.010200-0.341957I$ $a=\ \ 1.75122+1.35815I$ $b=\ \ 0.28529-1.50200I$	$8.40045+0.93571I$	$5.10679-0.20470I$
$u=\ \ 1.034120+0.360488I$ $a=-1.69152-1.51374I$ $b=-0.36843+1.41693I$	$8.02871+7.16899I$	$4.04638-5.36180I$
$u=\ \ 1.034120-0.360488I$ $a=-1.69152+1.51374I$ $b=-0.36843-1.41693I$	$8.02871-7.16899I$	$4.04638+5.36180I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.849973+0.280397I$ $a=-0.242823+1.009170I$ $b=-0.47754+1.42636I$	$7.72718-1.62974I$	$6.84120+4.62901I$
$u=-0.849973-0.280397I$ $a=-0.242823-1.009170I$ $b=-0.47754-1.42636I$	$7.72718+1.62974I$	$6.84120-4.62901I$
$u=0.820424+0.279483I$ $a=0.824667+1.112980I$ $b=0.54527+1.30745I$	$7.13325-4.52430I$	$5.24975-0.04556I$
$u=0.820424-0.279483I$ $a=0.824667-1.112980I$ $b=0.54527-1.30745I$	$7.13325+4.52430I$	$5.24975+0.04556I$
$u=-1.032610+0.601802I$ $a=1.65043-0.10414I$ $b=0.271049+0.895367I$	$-0.69343-3.44104I$	$-3.49913+1.77302I$
$u=-1.032610-0.601802I$ $a=1.65043+0.10414I$ $b=0.271049-0.895367I$	$-0.69343+3.44104I$	$-3.49913-1.77302I$
$u=-0.436713+0.643549I$ $a=-0.873930+0.140641I$ $b=-0.095191+0.569752I$	$-2.36797-1.54791I$	$-5.98242+3.82743I$
$u=-0.436713-0.643549I$ $a=-0.873930-0.140641I$ $b=-0.095191-0.569752I$	$-2.36797+1.54791I$	$-5.98242-3.82743I$
$u=1.148540+0.531353I$ $a=-1.142290-0.813304I$ $b=-0.463288+0.927025I$	$0.91919+5.37873I$	$-0.19036-8.13525I$
$u=1.148540-0.531353I$ $a=-1.142290+0.813304I$ $b=-0.463288-0.927025I$	$0.91919-5.37873I$	$-0.19036+8.13525I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.224290 + 0.660084I$ $a = -0.727263 - 0.397645I$ $b = -0.437340 + 0.740384I$	$3.15373 + 3.44015I$	$1.09535 - 6.84735I$
$u = 1.224290 - 0.660084I$ $a = -0.727263 + 0.397645I$ $b = -0.437340 - 0.740384I$	$3.15373 - 3.44015I$	$1.09535 + 6.84735I$
$u = -1.194030 + 0.723388I$ $a = 0.710244 - 0.208449I$ $b = 0.378499 + 0.712573I$	$2.57372 - 8.76471I$	$1.16247 + 13.49329I$
$u = -1.194030 - 0.723388I$ $a = 0.710244 + 0.208449I$ $b = 0.378499 - 0.712573I$	$2.57372 + 8.76471I$	$1.16247 - 13.49329I$
$u = 0.418660 + 0.236428I$ $a = 2.59720 - 0.31551I$ $b = 0.395093 + 0.357296I$	$-1.76916 - 1.46008I$	$-6.40935 + 7.45101I$
$u = 0.418660 - 0.236428I$ $a = 2.59720 + 0.31551I$ $b = 0.395093 - 0.357296I$	$-1.76916 + 1.46008I$	$-6.40935 - 7.45101I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_5	$(u^{26} - 11u^{25} + \cdots - 19u + 1)(u^{130} + 40u^{129} + \cdots + 5243u + 361)$
c_2	$(u^{26} - u^{25} + \cdots - u + 1)(u^{130} - 2u^{129} + \cdots + 37u + 19)$
c_3	$(u^{26} + 14u^{24} + \cdots - 2u + 1)(u^{130} + u^{129} + \cdots + 35584u + 5216)$
c_4	$(u^{26} - 7u^{24} + \cdots - 2u + 1)(u^{130} + u^{129} + \cdots - 9u^2 + 1)$
c_6	$(u^{26} + u^{25} + \cdots + u + 1)(u^{130} - 2u^{129} + \cdots + 37u + 19)$
c_7	$(u^{26} + 2u^{25} + \cdots - 6u + 1)(u^{130} - 21u^{129} + \cdots - 17072u + 911)$
c_8	$(u^{26} + 14u^{24} + \cdots + 2u + 1)(u^{130} + u^{129} + \cdots + 35584u + 5216)$
c_9	$(u^{26} + 2u^{25} + \cdots + 2u + 1)$ $\cdot (u^{130} - 11u^{129} + \cdots - 29278734u + 4023961)$
c_{10}	$(u^{26} + 14u^{25} + \cdots + 14u + 1)(u^{130} - 61u^{129} + \cdots - 18u + 1)$
c_{11}	$(u^{26} - 7u^{24} + \cdots + 2u + 1)(u^{130} + u^{129} + \cdots - 9u^2 + 1)$
c_{12}	$(u^{26} - 2u^{25} + \cdots - 2u + 1)(u^{130} + 3u^{129} + \cdots - 44u + 1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$(y^{26}+19y^{25}+\cdots-25y+1)$ $\cdot(y^{130}+112y^{129}+\cdots-2411101y+130321)$
c_2, c_6	$(y^{26}+11y^{25}+\cdots+19y+1)(y^{130}+40y^{129}+\cdots+5243y+361)$
c_3, c_8	$(y^{26}+28y^{25}+\cdots+24y+1)$ $\cdot(y^{130}+105y^{129}+\cdots+1506854912y+27206656)$
c_4, c_{11}	$(y^{26}-14y^{25}+\cdots-14y+1)(y^{130}-61y^{129}+\cdots-18y+1)$
c_7	$(y^{26}-2y^{25}+\cdots-8y+1)(y^{130}+7y^{129}+\cdots+2.26013\times10^{7}y+829921)$
c_9	$(y^{26}-6y^{25}+\cdots+6y+1)$ $\cdot(y^{130}+43y^{129}+\cdots+1129554070125350y+16192262129521)$
c_{10}	$(y^{26}+6y^{25}+\cdots+18y+1)(y^{130}+27y^{129}+\cdots-2y+1)$
c_{12}	$(y^{26}+6y^{25}+\cdots-6y+1)(y^{130}+11y^{129}+\cdots-58y+1)$