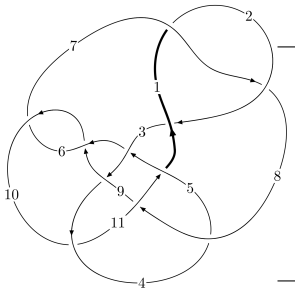
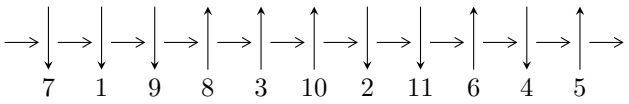
$11a_{233}$ ($K11a_{233}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -2.27632 \times 10^{208} u^{109} + 1.94112 \times 10^{208} u^{108} + \cdots + 4.24838 \times 10^{207} b + 1.02341 \times 10^{210}, \\ & - 3.37601 \times 10^{209} u^{109} + 7.54876 \times 10^{209} u^{108} + \cdots + 2.08171 \times 10^{209} a - 4.18256 \times 10^{210}, \\ & u^{110} - 25 u^{108} + \cdots - 111 u - 49 \rangle \\ I_2^u = \langle & -u^{23} - u^{22} + \cdots + b + 1,\ 213 u^{23} + 206 u^{22} + \cdots + 19 a - 309,\ u^{24} + u^{23} + \cdots - 4 u - 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 134 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. $\boldsymbol{I_1^u = \langle -2.28 \times 10^{208} u^{109} + 1.94 \times 10^{208} u^{108} + \cdots + 4.25 \times 10^{207} b + 1.02 \times 10^{210},\ -3.38 \times 10^{209} u^{109} + 7.55 \times 10^{209} u^{108} + \cdots + 2.08 \times 10^{209} a - 4.18 \times 10^{210},\ u^{110} - 25 u^{108} + \cdots - 111 u - 49 \rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^2 + 1 \\ u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1.62175 u^{109} - 3.62623 u^{108} + \cdots - 57.1057 u + 20.0920 \\ 5.35809 u^{109} - 4.56908 u^{108} + \cdots - 399.860 u - 240.893 \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} -1.91012 u^{109} - 0.808931 u^{108} + \cdots + 191.146 u + 188.961 \\ 7.74510 u^{109} - 7.62401 u^{108} + \cdots - 508.453 u - 271.714 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -6.62292 u^{109} + 6.81033 u^{108} + \cdots + 447.228 u + 250.503 \\ 3.00556 u^{109} - 6.70861 u^{108} + \cdots - 105.567 u + 75.2016 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 8.05410 u^{109} - 8.44201 u^{108} + \cdots - 548.617 u - 273.571 \\ -1.92264 u^{109} + 8.03692 u^{108} + \cdots - 20.2333 u - 246.169 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -5.59038 u^{109} + 4.91305 u^{108} + \cdots + 389.785 u + 244.009 \\ 4.07996 u^{109} - 8.62390 u^{108} + \cdots - 159.703 u + 79.3119 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -1.66281 u^{109} - 0.839116 u^{108} + \cdots + 171.874 u + 172.557 \\ 7.01460 u^{109} - 7.18860 u^{108} + \cdots - 461.032 u - 232.681 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -1.66281 u^{109} - 0.839116 u^{108} + \cdots + 171.874 u + 172.557 \\ 7.01460 u^{109} - 7.18860 u^{108} + \cdots - 461.032 u - 232.681 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -8.45708 u^{109} + 8.40205 u^{108} + \cdots + 589.854 u + 392.471$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{110} - 25u^{108} + \cdots + 111u - 49$
c_2	$u^{110} + 50u^{109} + \cdots + 26237u + 2401$
c_3	$u^{110} - u^{109} + \cdots - 33999u - 6849$
c_4	$u^{110} - 3u^{109} + \cdots - 41u - 1$
c_5	$u^{110} - 7u^{109} + \cdots - 126089u - 152261$
c_6, c_9	$u^{110} - 33u^{108} + \cdots - 32u + 1133$
c_8	$u^{110} - 9u^{109} + \cdots + 21u - 1$
c_{10}	$u^{110} + 3u^{109} + \cdots - 37u + 1$
c_{11}	$u^{110} - 5u^{108} + \cdots + 5654u - 1721$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{110} - 50y^{109} + \cdots - 26237y + 2401$
c_2	$y^{110} + 30y^{109} + \cdots - 18049781y + 5764801$
c_3	$y^{110} + 21y^{109} + \cdots + 2263623021y + 46908801$
c_4	$y^{110} + y^{109} + \cdots - 205y + 1$
c_5	$y^{110} - 35y^{109} + \cdots + 362704631019y + 23183412121$
c_6, c_9	$y^{110} - 66y^{109} + \cdots - 31330740y + 1283689$
c_8	$y^{110} + y^{109} + \cdots + 19y + 1$
c_{10}	$y^{110} + 5y^{109} + \cdots - 129y + 1$
c_{11}	$y^{110} - 10y^{109} + \cdots - 173719602y + 2961841$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.877207+0.464777I$ $a=-1.63345-0.65594I$ $b=-0.30513+2.32582I$	$-2.81741+1.89701I$	0
$u=-0.877207-0.464777I$ $a=-1.63345+0.65594I$ $b=-0.30513-2.32582I$	$-2.81741-1.89701I$	0
$u=-0.906253+0.459377I$ $a=-0.216830-0.375187I$ $b=\ \ 0.074681-1.025680I$	$-1.38141+4.57448I$	0
$u=-0.906253-0.459377I$ $a=-0.216830+0.375187I$ $b=\ \ 0.074681+1.025680I$	$-1.38141-4.57448I$	0
$u=\ \ 0.779379+0.592089I$ $a=-1.16698-1.53479I$ $b=\ \ 0.815736-0.623391I$	$4.64623-0.04743I$	0
$u=\ \ 0.779379-0.592089I$ $a=-1.16698+1.53479I$ $b=\ \ 0.815736+0.623391I$	$4.64623+0.04743I$	0
$u=-0.862031+0.455176I$ $a=\ \ 0.603643-0.885853I$ $b=\ \ 0.378364-1.127920I$	$-1.23201-0.85043I$	0
$u=-0.862031-0.455176I$ $a=\ \ 0.603643+0.885853I$ $b=\ \ 0.378364+1.127920I$	$-1.23201+0.85043I$	0
$u=\ \ 0.498633+0.834333I$ $a=-1.24445-1.05722I$ $b=\ \ 1.30739+0.77834I$	$2.08576+6.71841I$	0
$u=\ \ 0.498633-0.834333I$ $a=-1.24445+1.05722I$ $b=\ \ 1.30739-0.77834I$	$2.08576-6.71841I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.919272+0.312694I$ $a=\ \ 2.30721-0.99992I$ $b=-1.27590-1.00769I$	$0.29208-3.63942I$	0
$u=-0.919272-0.312694I$ $a=\ \ 2.30721+0.99992I$ $b=-1.27590+1.00769I$	$0.29208+3.63942I$	0
$u=\ \ 0.894461+0.341485I$ $a=-0.458154-0.689277I$ $b=\ \ 0.790844+0.231478I$	$-1.66024-0.89300I$	0
$u=\ \ 0.894461-0.341485I$ $a=-0.458154+0.689277I$ $b=\ \ 0.790844-0.231478I$	$-1.66024+0.89300I$	0
$u=\ \ 0.699495+0.780649I$ $a=\ \ 1.198460-0.366427I$ $b=-0.793614-0.327881I$	$6.12266+3.41032I$	0
$u=\ \ 0.699495-0.780649I$ $a=\ \ 1.198460+0.366427I$ $b=-0.793614+0.327881I$	$6.12266-3.41032I$	0
$u=\ \ 0.908401+0.528181I$ $a=-2.28390-0.15768I$ $b=\ \ 0.732017-0.538186I$	$-0.65779-5.16179I$	0
$u=\ \ 0.908401-0.528181I$ $a=-2.28390+0.15768I$ $b=\ \ 0.732017+0.538186I$	$-0.65779+5.16179I$	0
$u=-0.450080+0.954070I$ $a=-1.21322+0.77988I$ $b=\ \ 1.31650-0.83984I$	$6.1363-12.7818I$	0
$u=-0.450080-0.954070I$ $a=-1.21322-0.77988I$ $b=\ \ 1.31650+0.83984I$	$6.1363+12.7818I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.933669 + 0.499305I$ $a = 1.95385 + 0.36470I$ $b = -1.00796 + 1.26733I$	$-2.36919 - 2.67543I$	0
$u = 0.933669 - 0.499305I$ $a = 1.95385 - 0.36470I$ $b = -1.00796 - 1.26733I$	$-2.36919 + 2.67543I$	0
$u = -0.928488 + 0.102480I$ $a = 1.60356 - 0.71634I$ $b = 0.492832 - 0.757582I$	$1.78332 - 2.50693I$	0
$u = -0.928488 - 0.102480I$ $a = 1.60356 + 0.71634I$ $b = 0.492832 + 0.757582I$	$1.78332 + 2.50693I$	0
$u = 1.015960 + 0.327336I$ $a = 0.403514 - 0.415868I$ $b = 0.712743 + 0.871977I$	$-1.96403 - 0.96664I$	0
$u = 1.015960 - 0.327336I$ $a = 0.403514 + 0.415868I$ $b = 0.712743 - 0.871977I$	$-1.96403 + 0.96664I$	0
$u = 0.906000 + 0.578199I$ $a = 1.032450 + 0.199832I$ $b = -1.186720 - 0.508749I$	$4.25014 - 4.59723I$	0
$u = 0.906000 - 0.578199I$ $a = 1.032450 - 0.199832I$ $b = -1.186720 + 0.508749I$	$4.25014 + 4.59723I$	0
$u = -1.069320 + 0.108926I$ $a = -0.483978 + 0.417342I$ $b = 0.183669 + 1.073570I$	$-5.09720 + 2.43411I$	0
$u = -1.069320 - 0.108926I$ $a = -0.483978 - 0.417342I$ $b = 0.183669 - 1.073570I$	$-5.09720 - 2.43411I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.768096 + 0.504247I$ $a = 1.10361 + 1.56209I$ $b = -0.403494 - 0.242985I$	$-0.213297 + 0.928435I$	0
$u = 0.768096 - 0.504247I$ $a = 1.10361 - 1.56209I$ $b = -0.403494 + 0.242985I$	$-0.213297 - 0.928435I$	0
$u = -0.693726 + 0.829558I$ $a = -0.779769 + 1.106130I$ $b = 1.31216 - 0.72509I$	$7.43132 - 0.79593I$	0
$u = -0.693726 - 0.829558I$ $a = -0.779769 - 1.106130I$ $b = 1.31216 + 0.72509I$	$7.43132 + 0.79593I$	0
$u = 0.523668 + 0.741211I$ $a = 1.12373 + 0.96400I$ $b = -1.42277 - 1.05594I$	$6.62680 + 3.46904I$	0
$u = 0.523668 - 0.741211I$ $a = 1.12373 - 0.96400I$ $b = -1.42277 + 1.05594I$	$6.62680 - 3.46904I$	0
$u = 0.378004 + 0.807900I$ $a = -0.378489 + 0.463144I$ $b = 0.682090 - 0.070661I$	$1.72185 - 3.26106I$	0
$u = 0.378004 - 0.807900I$ $a = -0.378489 - 0.463144I$ $b = 0.682090 + 0.070661I$	$1.72185 + 3.26106I$	0
$u = -0.795267 + 0.389203I$ $a = 1.76374 - 0.04444I$ $b = -1.208800 + 0.171994I$	$2.92619 - 0.62432I$	0
$u = -0.795267 - 0.389203I$ $a = 1.76374 + 0.04444I$ $b = -1.208800 - 0.171994I$	$2.92619 + 0.62432I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.963056+0.572158I$ $a=-0.92650+1.41091I$ $b=\ \ 0.749621+0.384131I$	$1.67436+4.68049I$	0
$u=-0.963056-0.572158I$ $a=-0.92650-1.41091I$ $b=\ \ 0.749621-0.384131I$	$1.67436-4.68049I$	0
$u=-0.449330+1.028380I$ $a=-0.468032+0.389341I$ $b=\ \ 0.773402-0.518641I$	$4.82382-4.21742I$	0
$u=-0.449330-1.028380I$ $a=-0.468032-0.389341I$ $b=\ \ 0.773402+0.518641I$	$4.82382+4.21742I$	0
$u=\ \ 0.977137+0.554900I$ $a=-0.975120+0.865655I$ $b=-0.82789-2.04963I$	$1.86655-8.96327I$	0
$u=\ \ 0.977137-0.554900I$ $a=-0.975120-0.865655I$ $b=-0.82789+2.04963I$	$1.86655+8.96327I$	0
$u=\ \ 0.347166+0.792807I$ $a=\ \ 1.176620-0.063753I$ $b=-1.353060+0.254781I$	$5.78414-0.80826I$	0
$u=\ \ 0.347166-0.792807I$ $a=\ \ 1.176620+0.063753I$ $b=-1.353060-0.254781I$	$5.78414+0.80826I$	0
$u=\ \ 1.077080+0.357090I$ $a=\ \ 0.496904+0.747927I$ $b=\ \ 0.562525+1.139530I$	$-1.19948+1.82986I$	0
$u=\ \ 1.077080-0.357090I$ $a=\ \ 0.496904-0.747927I$ $b=\ \ 0.562525-1.139530I$	$-1.19948-1.82986I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.554814 + 1.000080I$ $a = 1.093360 + 0.477457I$ $b = -0.980163 - 0.369618I$	$2.97612 + 3.19519I$	0
$u = 0.554814 - 1.000080I$ $a = 1.093360 - 0.477457I$ $b = -0.980163 + 0.369618I$	$2.97612 - 3.19519I$	0
$u = -1.149670 + 0.046838I$ $a = -0.399836 + 0.038087I$ $b = -0.692479 + 0.940995I$	$-3.72221 - 4.85234I$	0
$u = -1.149670 - 0.046838I$ $a = -0.399836 - 0.038087I$ $b = -0.692479 - 0.940995I$	$-3.72221 + 4.85234I$	0
$u = -0.310587 + 0.786939I$ $a = 1.51809 - 0.41405I$ $b = -0.953194 + 0.420891I$	$1.63201 - 1.67537I$	0
$u = -0.310587 - 0.786939I$ $a = 1.51809 + 0.41405I$ $b = -0.953194 - 0.420891I$	$1.63201 + 1.67537I$	0
$u = 0.657188 + 0.523339I$ $a = -1.76810 + 0.26229I$ $b = 0.25935 - 1.89224I$	$2.86926 + 4.53794I$	0
$u = 0.657188 - 0.523339I$ $a = -1.76810 - 0.26229I$ $b = 0.25935 + 1.89224I$	$2.86926 - 4.53794I$	0
$u = -0.576594 + 0.605519I$ $a = 1.356830 + 0.270002I$ $b = -0.953112 + 0.084959I$	$2.76606 - 0.05036I$	0
$u = -0.576594 - 0.605519I$ $a = 1.356830 - 0.270002I$ $b = -0.953112 - 0.084959I$	$2.76606 + 0.05036I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.052560+0.500476I$ $a=-2.18256+1.04458I$ $b=\ \ 0.709599+0.809395I$	$-0.29158+8.70811I$	0
$u=-1.052560-0.500476I$ $a=-2.18256-1.04458I$ $b=\ \ 0.709599-0.809395I$	$-0.29158-8.70811I$	0
$u=-1.062770+0.482900I$ $a=-0.855928+0.673982I$ $b=\ \ 0.585258-0.115320I$	$-0.74609+5.32896I$	0
$u=-1.062770-0.482900I$ $a=-0.855928-0.673982I$ $b=\ \ 0.585258+0.115320I$	$-0.74609-5.32896I$	0
$u=-1.072460+0.462666I$ $a=-1.12860+1.34169I$ $b=\ \ 1.45190+0.29838I$	$-0.96350+5.88120I$	0
$u=-1.072460-0.462666I$ $a=-1.12860-1.34169I$ $b=\ \ 1.45190-0.29838I$	$-0.96350-5.88120I$	0
$u=-1.096870+0.405245I$ $a=-0.295230+1.369570I$ $b=\ \ 1.046210+0.360865I$	$1.77521+3.72119I$	0
$u=-1.096870-0.405245I$ $a=-0.295230-1.369570I$ $b=\ \ 1.046210-0.360865I$	$1.77521-3.72119I$	0
$u=-0.665044+0.962961I$ $a=-0.869511-0.020998I$ $b=\ \ 1.001420+0.089018I$	$7.39423+7.45324I$	0
$u=-0.665044-0.962961I$ $a=-0.869511+0.020998I$ $b=\ \ 1.001420-0.089018I$	$7.39423-7.45324I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.986287 + 0.678798I$ $a = -1.04231 - 1.40120I$ $b = 0.591393 - 0.442123I$	$5.22686 - 8.92615I$	0
$u = 0.986287 - 0.678798I$ $a = -1.04231 + 1.40120I$ $b = 0.591393 + 0.442123I$	$5.22686 + 8.92615I$	0
$u = -0.985417 + 0.709019I$ $a = 1.66661 - 0.54822I$ $b = -1.37059 - 1.09406I$	$6.52722 + 6.52907I$	0
$u = -0.985417 - 0.709019I$ $a = 1.66661 + 0.54822I$ $b = -1.37059 + 1.09406I$	$6.52722 - 6.52907I$	0
$u = 1.053980 + 0.616473I$ $a = -1.80894 - 1.12112I$ $b = 1.34053 - 1.41758I$	$5.04421 - 8.64823I$	0
$u = 1.053980 - 0.616473I$ $a = -1.80894 + 1.12112I$ $b = 1.34053 + 1.41758I$	$5.04421 + 8.64823I$	0
$u = 1.155080 + 0.419124I$ $a = -0.317358 + 0.478355I$ $b = -0.229713 + 0.381420I$	$-1.01670 - 1.54579I$	0
$u = 1.155080 - 0.419124I$ $a = -0.317358 - 0.478355I$ $b = -0.229713 - 0.381420I$	$-1.01670 + 1.54579I$	0
$u = -0.240009 + 0.729450I$ $a = 1.68755 - 0.37006I$ $b = -1.008390 + 0.326940I$	$1.63442 - 1.65219I$	0
$u = -0.240009 - 0.729450I$ $a = 1.68755 + 0.37006I$ $b = -1.008390 - 0.326940I$	$1.63442 + 1.65219I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.248160 + 0.167187I$ $a = -0.047582 + 0.185630I$ $b = 0.448747 + 0.739145I$	$-3.48242 - 1.40017I$	0
$u = 1.248160 - 0.167187I$ $a = -0.047582 - 0.185630I$ $b = 0.448747 - 0.739145I$	$-3.48242 + 1.40017I$	0
$u = -1.121870 + 0.588574I$ $a = -1.47537 + 0.92778I$ $b = 1.095070 + 0.694208I$	$-0.67710 + 6.80491I$	0
$u = -1.121870 - 0.588574I$ $a = -1.47537 - 0.92778I$ $b = 1.095070 - 0.694208I$	$-0.67710 - 6.80491I$	0
$u = 1.094930 + 0.652502I$ $a = 1.67330 + 0.85538I$ $b = -1.41731 + 1.03818I$	$0.28908 - 12.26980I$	0
$u = 1.094930 - 0.652502I$ $a = 1.67330 - 0.85538I$ $b = -1.41731 - 1.03818I$	$0.28908 + 12.26980I$	0
$u = 1.034360 + 0.780990I$ $a = 0.759324 - 0.098673I$ $b = -0.279493 + 0.935535I$	$-1.11477 - 3.22039I$	0
$u = 1.034360 - 0.780990I$ $a = 0.759324 + 0.098673I$ $b = -0.279493 - 0.935535I$	$-1.11477 + 3.22039I$	0
$u = 1.163950 + 0.597229I$ $a = -0.370407 - 1.011620I$ $b = 1.262770 - 0.100850I$	$3.34906 - 4.44237I$	0
$u = 1.163950 - 0.597229I$ $a = -0.370407 + 1.011620I$ $b = 1.262770 + 0.100850I$	$3.34906 + 4.44237I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.022390+0.825318I$ $a=\ \ 0.680590-0.651676I$ $b=-0.798900-0.226839I$	$6.31501-1.00722I$	0
$u=-1.022390-0.825318I$ $a=\ \ 0.680590+0.651676I$ $b=-0.798900+0.226839I$	$6.31501+1.00722I$	0
$u=-0.640270+0.212677I$ $a=\ \ 2.69349-1.83709I$ $b=-0.127581+0.488768I$	$1.54328-4.98644I$	$2.45007+8.52020I$
$u=-0.640270-0.212677I$ $a=\ \ 2.69349+1.83709I$ $b=-0.127581-0.488768I$	$1.54328+4.98644I$	$2.45007-8.52020I$
$u=-1.154350+0.677211I$ $a=\ \ 1.53961-0.91183I$ $b=-1.36470-1.04606I$	$3.9763+18.7296I$	0
$u=-1.154350-0.677211I$ $a=\ \ 1.53961+0.91183I$ $b=-1.36470+1.04606I$	$3.9763-18.7296I$	0
$u=\ \ 1.124100+0.727802I$ $a=-1.31702-0.62337I$ $b=\ \ 1.078770-0.606118I$	$1.19179-9.44841I$	0
$u=\ \ 1.124100-0.727802I$ $a=-1.31702+0.62337I$ $b=\ \ 1.078770+0.606118I$	$1.19179+9.44841I$	0
$u=\ \ 1.342090+0.044214I$ $a=-0.254009-0.071336I$ $b=-0.863754-0.749048I$	$-0.45665+9.74950I$	0
$u=\ \ 1.342090-0.044214I$ $a=-0.254009+0.071336I$ $b=-0.863754+0.749048I$	$-0.45665-9.74950I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.226007+0.599739I$ $a=\ \ 1.40029+0.22082I$ $b=-0.343438+0.044030I$	$1.50056-1.22933I$	$2.23781+0.32389I$
$u=-0.226007-0.599739I$ $a=\ \ 1.40029-0.22082I$ $b=-0.343438-0.044030I$	$1.50056+1.22933I$	$2.23781-0.32389I$
$u=-1.166200+0.701935I$ $a=\ \ 0.941883-0.444923I$ $b=-0.779786-0.885221I$	$2.61479+10.42400I$	0
$u=-1.166200-0.701935I$ $a=\ \ 0.941883+0.444923I$ $b=-0.779786+0.885221I$	$2.61479-10.42400I$	0
$u=\ \ 0.349015+0.346255I$ $a=\ \ 0.11626-1.61513I$ $b=\ \ 0.318522+0.666891I$	$-1.28138-1.05196I$	$-4.47244+2.63035I$
$u=\ \ 0.349015-0.346255I$ $a=\ \ 0.11626+1.61513I$ $b=\ \ 0.318522-0.666891I$	$-1.28138+1.05196I$	$-4.47244-2.63035I$
$u=-1.52087$ $a=-0.0990714$ $b=\ \ 0.528154$	-5.00608	0
$u=-0.073335+0.398555I$ $a=\ \ 2.33561+0.83813I$ $b=-0.285624+1.008580I$	$1.75925-4.87207I$	$2.70094+7.09838I$
$u=-0.073335-0.398555I$ $a=\ \ 2.33561-0.83813I$ $b=-0.285624-1.008580I$	$1.75925+4.87207I$	$2.70094-7.09838I$
$u=\ \ 1.63949$ $a=-0.148064$ $b=-0.209215$	-2.92394	0

II. $I_2^u =$
$\langle -u^{23}-u^{22}+\cdots+b+1,\ 213u^{23}+206u^{22}+\cdots+19a-309,\ u^{24}+u^{23}+\cdots-4u-1\rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^2+1 \\ u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -11.2105u^{23} - 10.8421u^{22} + \cdots + 2.47368u + 16.2632 \\ u^{23} + u^{22} + \cdots - u^3 - 1 \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} -7.36842u^{23} - 5.47368u^{22} + \cdots + 13.5789u + 16.2105 \\ -2.26316u^{23} - 3.05263u^{22} + \cdots - 1.15789u + 0.578947 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 17.8947u^{23} + 19.5789u^{22} + \cdots - 16.2632u - 17.3684 \\ 2u^{23} + 2u^{22} + \cdots + 9u + 2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u^{23} + 10u^{22} + \cdots + 43u + 12 \\ 2.36842u^{23} + 1.47368u^{22} + \cdots + 5.42105u - 3.21053 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 5.26316u^{23} + 9.05263u^{22} + \cdots + 11.1579u - 5.57895 \\ 1.10526u^{23} + 0.421053u^{22} + \cdots - 9.73684u - 2.63158 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -7.36842u^{23} - 5.47368u^{22} + \cdots + 13.5789u + 15.2105 \\ -3.94737u^{23} - 5.78947u^{22} + \cdots - 2.36842u - 1.31579 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -7.36842u^{23} - 5.47368u^{22} + \cdots + 13.5789u + 15.2105 \\ -3.94737u^{23} - 5.78947u^{22} + \cdots - 2.36842u - 1.31579 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{61}{19}u^{23} - \frac{22}{19}u^{22} + \cdots - \frac{446}{19}u - \frac{290}{19}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{24}+u^{23}+\cdots-4u-1$
c_2	$u^{24}+15u^{23}+\cdots+20u+1$
c_3	$u^{24}-4u^{22}+\cdots-7u^2-1$
c_4	$u^{24}+2u^{21}+\cdots+6u^2-1$
c_5	$u^{24}-8u^{23}+\cdots+2u-1$
c_6	$u^{24}-u^{23}+\cdots-u+1$
c_7	$u^{24}-u^{23}+\cdots+4u-1$
c_8	$u^{24}-4u^{23}+\cdots+2u^2-1$
c_9	$u^{24}+u^{23}+\cdots+u+1$
c_{10}	$u^{24}+2u^{22}+\cdots+2u^2+1$
c_{11}	$u^{24}-u^{23}+\cdots-5u+1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{24} - 15y^{23} + \cdots - 20y + 1$
c_2	$y^{24} - 3y^{23} + \cdots - 48y + 1$
c_3	$y^{24} - 8y^{23} + \cdots + 14y + 1$
c_4	$y^{24} + 22y^{22} + \cdots - 12y + 1$
c_5	$y^{24} + 6y^{22} + \cdots + 16y + 1$
c_6, c_9	$y^{24} - 11y^{23} + \cdots - 23y + 1$
c_8	$y^{24} - 12y^{23} + \cdots - 4y + 1$
c_{10}	$y^{24} + 4y^{23} + \cdots + 4y + 1$
c_{11}	$y^{24} + 13y^{23} + \cdots - 17y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.961540 + 0.324381I$ $a = 0.208085 + 1.144620I$ $b = 0.442192 + 0.967157I$	$-2.24478 + 1.21499I$	$-7.92334 - 1.43420I$
$u = 0.961540 - 0.324381I$ $a = 0.208085 - 1.144620I$ $b = 0.442192 - 0.967157I$	$-2.24478 - 1.21499I$	$-7.92334 + 1.43420I$
$u = 0.892664 + 0.380781I$ $a = 1.65001 - 0.59564I$ $b = 0.23059 + 2.03345I$	$-3.23367 - 1.58563I$	$-12.12086 - 2.46911I$
$u = 0.892664 - 0.380781I$ $a = 1.65001 + 0.59564I$ $b = 0.23059 - 2.03345I$	$-3.23367 + 1.58563I$	$-12.12086 + 2.46911I$
$u = 0.623098 + 0.828332I$ $a = 0.612078 + 0.279702I$ $b = -0.751668 - 0.641408I$	$5.06464 + 3.02635I$	$3.34483 - 2.15323I$
$u = 0.623098 - 0.828332I$ $a = 0.612078 - 0.279702I$ $b = -0.751668 + 0.641408I$	$5.06464 - 3.02635I$	$3.34483 + 2.15323I$
$u = -1.001840 + 0.322771I$ $a = -0.17729 + 1.57604I$ $b = 0.560177 - 0.727103I$	$0.59195 + 6.60993I$	$0.94676 - 9.25140I$
$u = -1.001840 - 0.322771I$ $a = -0.17729 - 1.57604I$ $b = 0.560177 + 0.727103I$	$0.59195 - 6.60993I$	$0.94676 + 9.25140I$
$u = 0.897988 + 0.262907I$ $a = -0.971959 + 0.460730I$ $b = -0.121570 + 0.856122I$	$-1.90223 - 3.65372I$	$-4.93874 + 1.94442I$
$u = 0.897988 - 0.262907I$ $a = -0.971959 - 0.460730I$ $b = -0.121570 - 0.856122I$	$-1.90223 + 3.65372I$	$-4.93874 - 1.94442I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.438159+0.817215I$ $a=\ \ 1.53700-0.49507I$ $b=-0.818325+0.359525I$	$1.88279-2.28848I$	$2.76403+7.78053I$
$u=-0.438159-0.817215I$ $a=\ \ 1.53700+0.49507I$ $b=-0.818325-0.359525I$	$1.88279+2.28848I$	$2.76403-7.78053I$
$u=-0.853505+0.312541I$ $a=\ \ 2.70499-0.98940I$ $b=-0.411010-1.224670I$	$1.13728-3.97909I$	$0.40364+4.38191I$
$u=-0.853505-0.312541I$ $a=\ \ 2.70499+0.98940I$ $b=-0.411010+1.224670I$	$1.13728+3.97909I$	$0.40364-4.38191I$
$u=\ \ 1.014300+0.661581I$ $a=-1.42783-0.61492I$ $b=\ \ 0.657688-1.132690I$	$3.87513-8.58418I$	$0.60808+7.82779I$
$u=\ \ 1.014300-0.661581I$ $a=-1.42783+0.61492I$ $b=\ \ 0.657688+1.132690I$	$3.87513+8.58418I$	$0.60808-7.82779I$
$u=-1.082920+0.582065I$ $a=-1.71488+0.85787I$ $b=\ \ 0.954611+0.627912I$	$-0.07044+7.43879I$	$2.45661-8.35379I$
$u=-1.082920-0.582065I$ $a=-1.71488-0.85787I$ $b=\ \ 0.954611-0.627912I$	$-0.07044-7.43879I$	$2.45661+8.35379I$
$u=-1.027780+0.714936I$ $a=-0.888542+0.014176I$ $b=\ \ 0.417891+1.004570I$	$-1.07995+3.05188I$	$1.95660+12.36124I$
$u=-1.027780-0.714936I$ $a=-0.888542-0.014176I$ $b=\ \ 0.417891-1.004570I$	$-1.07995-3.05188I$	$1.95660-12.36124I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ \ 1.46567$ $a = -0.250975$ $b = \ \ 0.331222$	-5.22323	-22.3570
$u = -0.400602 + 0.082348I$ $a = \ \ 2.04874 + 2.74231I$ $b = -0.979032 - 0.024538I$	$3.31624 + 1.99605I$	$5.84393 - 3.12794I$
$u = -0.400602 - 0.082348I$ $a = \ \ 2.04874 - 2.74231I$ $b = -0.979032 + 0.024538I$	$3.31624 - 1.99605I$	$5.84393 + 3.12794I$
$u = -1.63523$ $a = \ \ 0.0901907$ $b = \ \ 0.305685$	-2.87094	69.6740

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{24}+u^{23}+\cdots-4u-1)(u^{110}-25u^{108}+\cdots+111u-49)$
c_2	$(u^{24}+15u^{23}+\cdots+20u+1)(u^{110}+50u^{109}+\cdots+26237u+2401)$
c_3	$(u^{24}-4u^{22}+\cdots-7u^2-1)(u^{110}-u^{109}+\cdots-33999u-6849)$
c_4	$(u^{24}+2u^{21}+\cdots+6u^2-1)(u^{110}-3u^{109}+\cdots-41u-1)$
c_5	$(u^{24}-8u^{23}+\cdots+2u-1)(u^{110}-7u^{109}+\cdots-126089u-152261)$
c_6	$(u^{24}-u^{23}+\cdots-u+1)(u^{110}-33u^{108}+\cdots-32u+1133)$
c_7	$(u^{24}-u^{23}+\cdots+4u-1)(u^{110}-25u^{108}+\cdots+111u-49)$
c_8	$(u^{24}-4u^{23}+\cdots+2u^2-1)(u^{110}-9u^{109}+\cdots+21u-1)$
c_9	$(u^{24}+u^{23}+\cdots+u+1)(u^{110}-33u^{108}+\cdots-32u+1133)$
c_{10}	$(u^{24}+2u^{22}+\cdots+2u^2+1)(u^{110}+3u^{109}+\cdots-37u+1)$
c_{11}	$(u^{24}-u^{23}+\cdots-5u+1)(u^{110}-5u^{108}+\cdots+5654u-1721)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7	$(y^{24} - 15y^{23} + \cdots - 20y + 1)(y^{110} - 50y^{109} + \cdots - 26237y + 2401)$
c_2	$(y^{24} - 3y^{23} + \cdots - 48y + 1)$ $\cdot (y^{110} + 30y^{109} + \cdots - 18049781y + 5764801)$
c_3	$(y^{24} - 8y^{23} + \cdots + 14y + 1)$ $\cdot (y^{110} + 21y^{109} + \cdots + 2263623021y + 46908801)$
c_4	$(y^{24} + 22y^{22} + \cdots - 12y + 1)(y^{110} + y^{109} + \cdots - 205y + 1)$
c_5	$(y^{24} + 6y^{22} + \cdots + 16y + 1)$ $\cdot (y^{110} - 35y^{109} + \cdots + 362704631019y + 23183412121)$
c_6, c_9	$(y^{24} - 11y^{23} + \cdots - 23y + 1)$ $\cdot (y^{110} - 66y^{109} + \cdots - 31330740y + 1283689)$
c_8	$(y^{24} - 12y^{23} + \cdots - 4y + 1)(y^{110} + y^{109} + \cdots + 19y + 1)$
c_{10}	$(y^{24} + 4y^{23} + \cdots + 4y + 1)(y^{110} + 5y^{109} + \cdots - 129y + 1)$
c_{11}	$(y^{24} + 13y^{23} + \cdots - 17y + 1)$ $\cdot (y^{110} - 10y^{109} + \cdots - 173719602y + 2961841)$