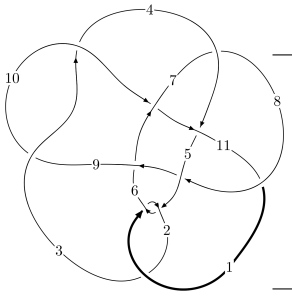
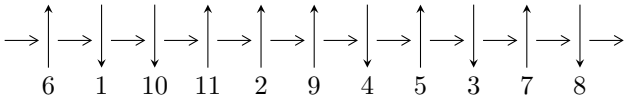
$11a_{164}$ ($K11a_{164}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -9.08044 \times 10^{141} u^{100} - 1.16506 \times 10^{142} u^{99} + \cdots + 2.96438 \times 10^{142} b + 6.72571 \times 10^{142}, \\ & - 1.52478 \times 10^{143} u^{100} + 2.53452 \times 10^{142} u^{99} + \cdots + 2.96438 \times 10^{142} a + 2.83966 \times 10^{143}, \\ & u^{101} + 24u^{99} + \cdots + 10u + 1 \rangle \\ I_2^u = \langle & -u^{16} - u^{15} - 5u^{14} - 4u^{13} - 10u^{12} - 6u^{11} - 11u^{10} - 4u^9 - 6u^8 + u^7 - 3u^6 + 2u^5 - 3u^4 + u^3 + b + 1, \\ & - 4u^{16} - 10u^{15} + \cdots + a + 6,\ u^{17} + u^{16} + \cdots + 2u - 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 118 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. $\boldsymbol{I_1^u = \langle -9.08 \times 10^{141} u^{100} - 1.17 \times 10^{142} u^{99} + \cdots + 2.96 \times 10^{142} b + 6.73 \times 10^{142},\ -1.52 \times 10^{143} u^{100} + 2.53 \times 10^{142} u^{99} + \cdots + 2.96 \times 10^{142} a + 2.84 \times 10^{143},\ u^{101} + 24u^{99} + \cdots + 10u + 1 \rangle}$

(i) Arc colorings

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

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 5.14368u^{100} - 0.854991u^{99} + \cdots - 75.8410u - 9.57926 \\ 0.306318u^{100} + 0.393021u^{99} + \cdots - 11.1105u - 2.26884 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 5.45000u^{100} - 0.461970u^{99} + \cdots - 86.9515u - 11.8481 \\ 0.306318u^{100} + 0.393021u^{99} + \cdots - 11.1105u - 2.26884 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^3 \\ u^5 + u^3 + u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 5.21197u^{100} - 2.09654u^{99} + \cdots - 105.903u - 13.5218 \\ -0.375750u^{100} + 0.0665634u^{99} + \cdots - 5.48782u - 1.77008 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1.79088u^{100} - 2.36678u^{99} + \cdots - 67.2269u - 7.13448 \\ -1.52592u^{100} - 1.16036u^{99} + \cdots - 19.1077u - 2.00447 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -1.60316u^{100} + 4.26183u^{99} + \cdots + 81.9912u + 8.94626 \\ -0.148855u^{100} - 2.54143u^{99} + \cdots - 9.70613u - 0.621772 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -1.79064u^{100} + 3.85132u^{99} + \cdots + 96.9928u + 5.13132 \\ 0.204887u^{100} + 0.0480139u^{99} + \cdots + 2.60472u - 1.56299 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -1.79064u^{100} + 3.85132u^{99} + \cdots + 96.9928u + 5.13132 \\ 0.204887u^{100} + 0.0480139u^{99} + \cdots + 2.60472u - 1.56299 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -75.9603u^{100} + 17.6410u^{99} + \cdots + 792.020u + 79.1726$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{101} + 24u^{99} + \cdots + 10u + 1$
c_2	$u^{101} + 48u^{100} + \cdots + 56u - 1$
c_3, c_9	$u^{101} + 2u^{100} + \cdots + 2225u + 419$
c_4	$u^{101} - u^{100} + \cdots + 27u - 1$
c_6	$u^{101} - 2u^{100} + \cdots + 509u - 103$
c_7	$u^{101} + 3u^{100} + \cdots + 2286u - 617$
c_8	$u^{101} + 2u^{100} + \cdots - 3009u - 289$
c_{10}	$u^{101} + u^{100} + \cdots + 18u + 1$
c_{11}	$u^{101} + 3u^{100} + \cdots - 550u - 25$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{101} + 48y^{100} + \cdots + 56y - 1$
c_2	$y^{101} + 16y^{100} + \cdots + 5112y - 1$
c_3, c_9	$y^{101} - 66y^{100} + \cdots + 4179665y - 175561$
c_4	$y^{101} - 3y^{100} + \cdots + 397y - 1$
c_6	$y^{101} + 2y^{100} + \cdots + 495157y - 10609$
c_7	$y^{101} - 23y^{100} + \cdots + 17244956y - 380689$
c_8	$y^{101} - 10y^{100} + \cdots + 435523y - 83521$
c_{10}	$y^{101} + 15y^{100} + \cdots + 48y - 1$
c_{11}	$y^{101} - 5y^{100} + \cdots + 430150y - 625$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.799338 + 0.603896I$ $a = 1.310790 + 0.397626I$ $b = -0.730027 + 0.237935I$	$0.67147 - 3.20721I$	0
$u = 0.799338 - 0.603896I$ $a = 1.310790 - 0.397626I$ $b = -0.730027 - 0.237935I$	$0.67147 + 3.20721I$	0
$u = 0.920784 + 0.379494I$ $a = -1.36311 + 0.74527I$ $b = 1.27183 - 0.84399I$	$-0.83041 - 12.65940I$	0
$u = 0.920784 - 0.379494I$ $a = -1.36311 - 0.74527I$ $b = 1.27183 + 0.84399I$	$-0.83041 + 12.65940I$	0
$u = 0.310097 + 0.962923I$ $a = 0.873648 + 0.529676I$ $b = 0.683779 - 1.049460I$	$-0.399141 + 1.242870I$	0
$u = 0.310097 - 0.962923I$ $a = 0.873648 - 0.529676I$ $b = 0.683779 + 1.049460I$	$-0.399141 - 1.242870I$	0
$u = -0.914060 + 0.352085I$ $a = -0.588282 - 0.618097I$ $b = 0.767034 + 0.712223I$	$-2.33944 + 4.55777I$	0
$u = -0.914060 - 0.352085I$ $a = -0.588282 + 0.618097I$ $b = 0.767034 - 0.712223I$	$-2.33944 - 4.55777I$	0
$u = 0.834355 + 0.503525I$ $a = -0.668685 - 0.367928I$ $b = 0.780605 + 0.089667I$	$3.71124 + 3.14543I$	0
$u = 0.834355 - 0.503525I$ $a = -0.668685 + 0.367928I$ $b = 0.780605 - 0.089667I$	$3.71124 - 3.14543I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.414857 + 0.874591I$ $a = -2.48341 - 0.53136I$ $b = 0.11393 + 2.94906I$	$-1.97371 + 1.74177I$	0
$u = 0.414857 - 0.874591I$ $a = -2.48341 + 0.53136I$ $b = 0.11393 - 2.94906I$	$-1.97371 - 1.74177I$	0
$u = -0.156554 + 0.939549I$ $a = 0.107048 + 0.818381I$ $b = 0.443879 + 1.017760I$	$-3.36242 + 1.21904I$	0
$u = -0.156554 - 0.939549I$ $a = 0.107048 - 0.818381I$ $b = 0.443879 - 1.017760I$	$-3.36242 - 1.21904I$	0
$u = -0.812488 + 0.488151I$ $a = -1.29297 - 1.09727I$ $b = 1.30092 + 0.77115I$	$3.68064 + 6.67564I$	0
$u = -0.812488 - 0.488151I$ $a = -1.29297 + 1.09727I$ $b = 1.30092 - 0.77115I$	$3.68064 - 6.67564I$	0
$u = 0.472749 + 0.956015I$ $a = 1.29828 - 0.99813I$ $b = -1.72376 + 0.36555I$	$-2.59160 + 2.64890I$	0
$u = 0.472749 - 0.956015I$ $a = 1.29828 + 0.99813I$ $b = -1.72376 - 0.36555I$	$-2.59160 - 2.64890I$	0
$u = -0.711647 + 0.603130I$ $a = 1.27586 + 0.82927I$ $b = -0.713650 - 0.372777I$	$0.97787 + 2.04675I$	0
$u = -0.711647 - 0.603130I$ $a = 1.27586 - 0.82927I$ $b = -0.713650 + 0.372777I$	$0.97787 - 2.04675I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.619610+0.688764I$ $a=\ \ 1.303250-0.202527I$ $b=-0.978922-0.237953I$	$3.95086-0.15387I$	0
$u=-0.619610-0.688764I$ $a=\ \ 1.303250+0.202527I$ $b=-0.978922+0.237953I$	$3.95086+0.15387I$	0
$u=\ \ 0.614599+0.687148I$ $a=-0.278610+0.955094I$ $b=\ \ 0.780571-0.602224I$	$0.44573+1.61901I$	0
$u=\ \ 0.614599-0.687148I$ $a=-0.278610-0.955094I$ $b=\ \ 0.780571+0.602224I$	$0.44573-1.61901I$	0
$u=-0.159716+1.068970I$ $a=\ \ 0.779544+0.696041I$ $b=\ \ 0.648363+0.903082I$	$-3.30571+2.25191I$	0
$u=-0.159716-1.068970I$ $a=\ \ 0.779544-0.696041I$ $b=\ \ 0.648363-0.903082I$	$-3.30571-2.25191I$	0
$u=\ \ 0.446085+0.987433I$ $a=-2.74444+0.81201I$ $b=\ \ 0.603591+0.661833I$	$-4.95602+7.28899I$	0
$u=\ \ 0.446085-0.987433I$ $a=-2.74444-0.81201I$ $b=\ \ 0.603591-0.661833I$	$-4.95602-7.28899I$	0
$u=\ \ 1.006780+0.413097I$ $a=\ \ 1.183050-0.359917I$ $b=-0.953599+0.459118I$	$-1.20543-2.91368I$	0
$u=\ \ 1.006780-0.413097I$ $a=\ \ 1.183050+0.359917I$ $b=-0.953599-0.459118I$	$-1.20543+2.91368I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.356062+1.034300I$ $a=\ \ 1.90863+0.96870I$ $b=-1.04466+1.05860I$	$-6.47568+2.60950I$	0
$u=-0.356062-1.034300I$ $a=\ \ 1.90863-0.96870I$ $b=-1.04466-1.05860I$	$-6.47568-2.60950I$	0
$u=\ \ 0.463350+1.009350I$ $a=\ \ 0.547639-0.776583I$ $b=\ \ 0.466122-1.198110I$	$-4.78444-1.35131I$	0
$u=\ \ 0.463350-1.009350I$ $a=\ \ 0.547639+0.776583I$ $b=\ \ 0.466122+1.198110I$	$-4.78444+1.35131I$	0
$u=-0.593448+0.943581I$ $a=-0.96895-1.43132I$ $b=\ \ 0.731080-0.425982I$	$3.17647-4.63483I$	0
$u=-0.593448-0.943581I$ $a=-0.96895+1.43132I$ $b=\ \ 0.731080+0.425982I$	$3.17647+4.63483I$	0
$u=\ \ 0.026019+1.128800I$ $a=-0.417275-0.110011I$ $b=-0.594637-0.897589I$	$-2.11387+5.01998I$	0
$u=\ \ 0.026019-1.128800I$ $a=-0.417275+0.110011I$ $b=-0.594637+0.897589I$	$-2.11387-5.01998I$	0
$u=\ \ 0.571043+0.979201I$ $a=\ \ 1.75185-0.23420I$ $b=-0.92445-1.33397I$	$-0.50863+3.05407I$	0
$u=\ \ 0.571043-0.979201I$ $a=\ \ 1.75185+0.23420I$ $b=-0.92445+1.33397I$	$-0.50863-3.05407I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.851203+0.755593I$ $a=-1.107360+0.060680I$ $b=\ \ 0.969445-0.244990I$	$1.46871-8.32039I$	0
$u=-0.851203-0.755593I$ $a=-1.107360-0.060680I$ $b=\ \ 0.969445+0.244990I$	$1.46871+8.32039I$	0
$u=-0.751900+0.416167I$ $a=\ \ 1.25275+0.66263I$ $b=-1.11700-0.97222I$	$1.45805+4.32698I$	0
$u=-0.751900-0.416167I$ $a=\ \ 1.25275-0.66263I$ $b=-1.11700+0.97222I$	$1.45805-4.32698I$	0
$u=\ \ 0.686788+0.515849I$ $a=\ \ 1.360940+0.111989I$ $b=-1.084070-0.393308I$	$2.01265+1.89682I$	0
$u=\ \ 0.686788-0.515849I$ $a=\ \ 1.360940-0.111989I$ $b=-1.084070+0.393308I$	$2.01265-1.89682I$	0
$u=-0.329654+1.104690I$ $a=-0.961036-0.873809I$ $b=\ \ 0.973345-0.089544I$	$-6.08185-3.72513I$	0
$u=-0.329654-1.104690I$ $a=-0.961036+0.873809I$ $b=\ \ 0.973345+0.089544I$	$-6.08185+3.72513I$	0
$u=\ \ 0.402510+0.742669I$ $a=-1.32349+2.16488I$ $b=\ \ 1.223860+0.498277I$	$-1.82096+1.07594I$	0
$u=\ \ 0.402510-0.742669I$ $a=-1.32349-2.16488I$ $b=\ \ 1.223860-0.498277I$	$-1.82096-1.07594I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.498083+1.052540I$ $a=-0.869818+0.501520I$ $b=-0.64201-1.73281I$	$-5.52278-9.23097I$	0
$u=-0.498083-1.052540I$ $a=-0.869818-0.501520I$ $b=-0.64201+1.73281I$	$-5.52278+9.23097I$	0
$u=-0.803342+0.843458I$ $a=0.853853+0.788546I$ $b=-0.772508-0.059619I$	$1.15621+2.31115I$	0
$u=-0.803342-0.843458I$ $a=0.853853-0.788546I$ $b=-0.772508+0.059619I$	$1.15621-2.31115I$	0
$u=-0.453521+1.073760I$ $a=-0.205523+0.115628I$ $b=0.339218+0.818234I$	$-5.48767-3.61474I$	0
$u=-0.453521-1.073760I$ $a=-0.205523-0.115628I$ $b=0.339218-0.818234I$	$-5.48767+3.61474I$	0
$u=-0.424837+1.089140I$ $a=-0.953607+0.007477I$ $b=0.254632+0.237622I$	$-5.68517-3.63758I$	0
$u=-0.424837-1.089140I$ $a=-0.953607-0.007477I$ $b=0.254632-0.237622I$	$-5.68517+3.63758I$	0
$u=-0.829751$ $a=1.76369$ $b=-0.808831$	-2.37595	-7.91280
$u=0.308021+0.765503I$ $a=1.85520-2.58678I$ $b=-0.180074+0.323037I$	$-3.96508-3.96334I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.308021 - 0.765503I$ $a = 1.85520 + 2.58678I$ $b = -0.180074 - 0.323037I$	$-3.96508 + 3.96334I$	0
$u = 0.543567 + 1.047650I$ $a = -1.63400 + 1.40042I$ $b = 1.63666 + 0.90355I$	$1.25180 + 5.00759I$	0
$u = 0.543567 - 1.047650I$ $a = -1.63400 - 1.40042I$ $b = 1.63666 - 0.90355I$	$1.25180 - 5.00759I$	0
$u = 0.565766 + 1.046080I$ $a = -0.531297 + 1.005030I$ $b = 1.011750 - 0.024388I$	$0.43832 + 2.94973I$	0
$u = 0.565766 - 1.046080I$ $a = -0.531297 - 1.005030I$ $b = 1.011750 + 0.024388I$	$0.43832 - 2.94973I$	0
$u = -0.619164 + 1.040840I$ $a = -1.68899 - 0.65437I$ $b = 0.949685 - 0.655891I$	$-0.39884 - 7.20242I$	0
$u = -0.619164 - 1.040840I$ $a = -1.68899 + 0.65437I$ $b = 0.949685 + 0.655891I$	$-0.39884 + 7.20242I$	0
$u = 0.649014 + 1.032630I$ $a = -1.06637 + 1.35632I$ $b = 0.577427 + 0.363094I$	$-0.65204 + 8.65062I$	0
$u = 0.649014 - 1.032630I$ $a = -1.06637 - 1.35632I$ $b = 0.577427 - 0.363094I$	$-0.65204 - 8.65062I$	0
$u = -0.590478 + 1.095830I$ $a = -1.71034 - 1.14733I$ $b = 1.11320 - 1.19830I$	$-0.54688 - 9.42136I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.590478-1.095830I$ $a=-1.71034+1.14733I$ $b=\ \ 1.11320+1.19830I$	$-0.54688+9.42136I$	0
$u=-0.634882+1.085050I$ $a=\ \ 1.72382+0.86789I$ $b=-1.43824+1.02968I$	$1.88903-12.09390I$	0
$u=-0.634882-1.085050I$ $a=\ \ 1.72382-0.86789I$ $b=-1.43824-1.02968I$	$1.88903+12.09390I$	0
$u=\ \ 0.669864+1.077590I$ $a=\ \ 0.358107-0.692737I$ $b=-0.486312-0.248477I$	$1.99749+2.44731I$	0
$u=\ \ 0.669864-1.077590I$ $a=\ \ 0.358107+0.692737I$ $b=-0.486312+0.248477I$	$1.99749-2.44731I$	0
$u=\ \ 0.570744+0.452507I$ $a=\ \ 1.71231-1.04390I$ $b=-1.51072+0.51145I$	$2.96660-0.49089I$	$7.55238+2.16583I$
$u=\ \ 0.570744-0.452507I$ $a=\ \ 1.71231+1.04390I$ $b=-1.51072-0.51145I$	$2.96660+0.49089I$	$7.55238-2.16583I$
$u=-0.509142+1.202890I$ $a=-0.282261-1.090640I$ $b=\ \ 1.239450-0.264175I$	$-0.83504-4.53253I$	0
$u=-0.509142-1.202890I$ $a=-0.282261+1.090640I$ $b=\ \ 1.239450+0.264175I$	$-0.83504+4.53253I$	0
$u=\ \ 0.133175+1.310000I$ $a=-0.245601+0.011835I$ $b=-0.910653+0.855165I$	$-6.74280-9.38225I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.133175 - 1.310000I$ $a = -0.245601 - 0.011835I$ $b = -0.910653 - 0.855165I$	$-6.74280 + 9.38225I$	0
$u = -0.629457 + 1.164540I$ $a = \quad 1.115690 + 0.513662I$ $b = -0.828844 + 1.008140I$	$-4.78498 - 10.19150I$	0
$u = -0.629457 - 1.164540I$ $a = \quad 1.115690 - 0.513662I$ $b = -0.828844 - 1.008140I$	$-4.78498 + 10.19150I$	0
$u = -0.672875$ $a = \quad 0.983401$ $b = -1.37061$	2.39150	4.53750
$u = \quad 0.637940 + 1.164240I$ $a = \quad 1.57827 - 0.98927I$ $b = -1.35140 - 1.00988I$	$-3.2128 + 18.3585I$	0
$u = \quad 0.637940 - 1.164240I$ $a = \quad 1.57827 + 0.98927I$ $b = -1.35140 + 1.00988I$	$-3.2128 - 18.3585I$	0
$u = \quad 0.671042 + 1.184580I$ $a = -1.28725 + 0.77156I$ $b = \quad 1.078220 + 0.645311I$	$-3.60655 + 8.97192I$	0
$u = \quad 0.671042 - 1.184580I$ $a = -1.28725 - 0.77156I$ $b = \quad 1.078220 - 0.645311I$	$-3.60655 - 8.97192I$	0
$u = -0.156902 + 1.376250I$ $a = -0.283066 - 0.016439I$ $b = -0.181732 - 0.559614I$	$-8.19291 + 0.99601I$	0
$u = -0.156902 - 1.376250I$ $a = -0.283066 + 0.016439I$ $b = -0.181732 + 0.559614I$	$-8.19291 - 0.99601I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.302756 + 0.498441I$ $a = -0.308634 - 1.162930I$ $b = -0.117456 - 1.191980I$	$-3.27231 + 4.97436I$	$-0.70929 - 6.10939I$
$u = 0.302756 - 0.498441I$ $a = -0.308634 + 1.162930I$ $b = -0.117456 + 1.191980I$	$-3.27231 - 4.97436I$	$-0.70929 + 6.10939I$
$u = 0.07558 + 1.45374I$ $a = -0.1083030 - 0.0627338I$ $b = 0.455276 - 0.353328I$	$-7.96605 + 0.73193I$	0
$u = 0.07558 - 1.45374I$ $a = -0.1083030 + 0.0627338I$ $b = 0.455276 + 0.353328I$	$-7.96605 - 0.73193I$	0
$u = -0.443111 + 0.299368I$ $a = -2.03589 + 0.51117I$ $b = 0.312294 - 1.330750I$	$-3.54835 + 5.18203I$	$-0.91692 - 5.34754I$
$u = -0.443111 - 0.299368I$ $a = -2.03589 - 0.51117I$ $b = 0.312294 + 1.330750I$	$-3.54835 - 5.18203I$	$-0.91692 + 5.34754I$
$u = -0.520031 + 0.009335I$ $a = 1.61993 - 0.12560I$ $b = 0.179992 + 0.256029I$	$-2.87373 - 0.05987I$	$-2.33537 - 0.50562I$
$u = -0.520031 - 0.009335I$ $a = 1.61993 + 0.12560I$ $b = 0.179992 - 0.256029I$	$-2.87373 + 0.05987I$	$-2.33537 + 0.50562I$
$u = 0.252798 + 0.419106I$ $a = 0.96673 + 1.19677I$ $b = 0.124630 - 0.530675I$	$0.177915 + 1.269900I$	$1.56526 - 5.04309I$
$u = 0.252798 - 0.419106I$ $a = 0.96673 - 1.19677I$ $b = 0.124630 + 0.530675I$	$0.177915 - 1.269900I$	$1.56526 + 5.04309I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.118039$		
$a=-2.40439$	2.58509	-1.74840
$b=-1.31263$		

II.

$\boldsymbol{I_2^u = \langle -u^{16}-u^{15}+\cdots+b+1,\ -4u^{16}-10u^{15}+\cdots+a+6,\ u^{17}+u^{16}+\cdots+2u-1\rangle}$

(i) Arc colorings

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

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 4u^{16}+10u^{15}+\cdots+18u-6 \\ u^{16}+u^{15}+\cdots-u^3-1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 5u^{16}+11u^{15}+\cdots+18u-7 \\ u^{16}+u^{15}+\cdots-u^3-1 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u \\ u^3+u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^3 \\ u^5+u^3+u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 9u^{15}+4u^{14}+\cdots+25u-8 \\ -2u^{16}-9u^{14}+\cdots+4u-1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^{16}-7u^{15}+\cdots-21u+10 \\ 2u^{16}-u^{15}+\cdots-10u+3 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 2u^{16}+6u^{15}+\cdots+10u-6 \\ 3u^{16}+4u^{15}+\cdots+4u-3 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 9u^{16}-2u^{15}+\cdots-27u+8 \\ 3u^{16}-3u^{15}+\cdots-13u+3 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 9u^{16}-2u^{15}+\cdots-27u+8 \\ 3u^{16}-3u^{15}+\cdots-13u+3 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -31u^{16}-48u^{15}-174u^{14}-214u^{13}-404u^{12}-394u^{11}-532u^{10}-408u^9-386u^8-177u^7-170u^6-30u^5-66u^4-6u^3+4u^2-7u+14$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{17} - u^{16} + \cdots + 2u + 1$
c_2	$u^{17} + 11u^{16} + \cdots - 2u - 1$
c_3	$u^{17} + u^{16} + \cdots + 3u + 1$
c_4	$u^{17} + 2u^{16} + \cdots + u + 1$
c_5	$u^{17} + u^{16} + \cdots + 2u - 1$
c_6	$u^{17} + 7u^{16} + \cdots + 3u + 1$
c_7	$u^{17} - 2u^{15} + \cdots + 2u + 1$
c_8	$u^{17} - u^{16} + \cdots - 5u - 1$
c_9	$u^{17} - u^{16} + \cdots + 3u - 1$
c_{10}	$u^{17} + 2u^{16} + \cdots - 10u + 1$
c_{11}	$u^{17} - 2u^{16} + \cdots + 6u^2 + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{17} + 11y^{16} + \cdots - 2y - 1$
c_2	$y^{17} - 5y^{16} + \cdots + 18y - 1$
c_3, c_9	$y^{17} - 7y^{16} + \cdots - y - 1$
c_4	$y^{17} + 8y^{16} + \cdots + 3y - 1$
c_6	$y^{17} + 9y^{16} + \cdots + 3y - 1$
c_7	$y^{17} - 4y^{16} + \cdots + 6y - 1$
c_8	$y^{17} + 9y^{16} + \cdots + 17y - 1$
c_{10}	$y^{17} + 10y^{16} + \cdots + 38y - 1$
c_{11}	$y^{17} + 6y^{16} + \cdots - 12y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.270408+0.962092I$ $a=-1.04261-1.14891I$ $b=\ \ 0.204174+0.738024I$	$-4.89729-5.84133I$	$-3.35810+6.50497I$
$u=-0.270408-0.962092I$ $a=-1.04261+1.14891I$ $b=\ \ 0.204174-0.738024I$	$-4.89729+5.84133I$	$-3.35810-6.50497I$
$u=-0.872126+0.553676I$ $a=\ \ 1.063540+0.250875I$ $b=-0.722929-0.503649I$	$-0.20281+3.45742I$	$-0.73533-6.43168I$
$u=-0.872126-0.553676I$ $a=\ \ 1.063540-0.250875I$ $b=-0.722929+0.503649I$	$-0.20281-3.45742I$	$-0.73533+6.43168I$
$u=-0.291654+0.910275I$ $a=\ \ 1.68315+1.82472I$ $b=\ \ 0.005999+1.003870I$	$-4.74843+3.51454I$	$-6.20887-3.24977I$
$u=-0.291654-0.910275I$ $a=\ \ 1.68315-1.82472I$ $b=\ \ 0.005999-1.003870I$	$-4.74843-3.51454I$	$-6.20887+3.24977I$
$u=\ \ 0.398186+0.863724I$ $a=\ \ 2.28049+0.12672I$ $b=-0.36263-2.57094I$	$-1.97020+1.69791I$	$27.8669+58.1541I$
$u=\ \ 0.398186-0.863724I$ $a=\ \ 2.28049-0.12672I$ $b=-0.36263+2.57094I$	$-1.97020-1.69791I$	$27.8669-58.1541I$
$u=\ \ 0.531255+1.079230I$ $a=-0.655795+1.123100I$ $b=\ \ 1.116800+0.398972I$	$1.15760+3.69823I$	$4.44640-3.84774I$
$u=\ \ 0.531255-1.079230I$ $a=-0.655795-1.123100I$ $b=\ \ 1.116800-0.398972I$	$1.15760-3.69823I$	$4.44640+3.84774I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.644274+1.068720I$ $a=-1.53526-0.81448I$ $b=\ \ 0.729693-0.841010I$	$-1.81180-9.05017I$	$-2.80055+9.33425I$
$u=-0.644274-1.068720I$ $a=-1.53526+0.81448I$ $b=\ \ 0.729693+0.841010I$	$-1.81180+9.05017I$	$-2.80055-9.33425I$
$u=\ \ 0.470497+0.542589I$ $a=\ \ 1.45609-0.01818I$ $b=-1.318200+0.095519I$	$2.92806+0.53275I$	$4.91516-7.33319I$
$u=\ \ 0.470497-0.542589I$ $a=\ \ 1.45609+0.01818I$ $b=-1.318200-0.095519I$	$2.92806-0.53275I$	$4.91516+7.33319I$
$u=-0.04437+1.47962I$ $a=-0.055780+0.181983I$ $b=\ \ 0.331139-0.004308I$	$-7.74398+1.02960I$	$7.41611-9.53632I$
$u=-0.04437-1.47962I$ $a=-0.055780-0.181983I$ $b=\ \ 0.331139+0.004308I$	$-7.74398-1.02960I$	$7.41611+9.53632I$
$u=\ \ 0.445787$ $a=\ \ 3.61237$ $b=-0.968106$	-1.61086	4.91660

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{17}-u^{16}+\cdots+2u+1)(u^{101}+24u^{99}+\cdots+10u+1)$
c_2	$(u^{17}+11u^{16}+\cdots-2u-1)(u^{101}+48u^{100}+\cdots+56u-1)$
c_3	$(u^{17}+u^{16}+\cdots+3u+1)(u^{101}+2u^{100}+\cdots+2225u+419)$
c_4	$(u^{17}+2u^{16}+\cdots+u+1)(u^{101}-u^{100}+\cdots+27u-1)$
c_5	$(u^{17}+u^{16}+\cdots+2u-1)(u^{101}+24u^{99}+\cdots+10u+1)$
c_6	$(u^{17}+7u^{16}+\cdots+3u+1)(u^{101}-2u^{100}+\cdots+509u-103)$
c_7	$(u^{17}-2u^{15}+\cdots+2u+1)(u^{101}+3u^{100}+\cdots+2286u-617)$
c_8	$(u^{17}-u^{16}+\cdots-5u-1)(u^{101}+2u^{100}+\cdots-3009u-289)$
c_9	$(u^{17}-u^{16}+\cdots+3u-1)(u^{101}+2u^{100}+\cdots+2225u+419)$
c_{10}	$(u^{17}+2u^{16}+\cdots-10u+1)(u^{101}+u^{100}+\cdots+18u+1)$
c_{11}	$(u^{17}-2u^{16}+\cdots+6u^2+1)(u^{101}+3u^{100}+\cdots-550u-25)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$(y^{17}+11y^{16}+\cdots-2y-1)(y^{101}+48y^{100}+\cdots+56y-1)$
c_2	$(y^{17}-5y^{16}+\cdots+18y-1)(y^{101}+16y^{100}+\cdots+5112y-1)$
c_3, c_9	$(y^{17}-7y^{16}+\cdots-y-1)(y^{101}-66y^{100}+\cdots+4179665y-175561)$
c_4	$(y^{17}+8y^{16}+\cdots+3y-1)(y^{101}-3y^{100}+\cdots+397y-1)$
c_6	$(y^{17}+9y^{16}+\cdots+3y-1)(y^{101}+2y^{100}+\cdots+495157y-10609)$
c_7	$(y^{17}-4y^{16}+\cdots+6y-1)$ $\cdot(y^{101}-23y^{100}+\cdots+17244956y-380689)$
c_8	$(y^{17}+9y^{16}+\cdots+17y-1)(y^{101}-10y^{100}+\cdots+435523y-83521)$
c_{10}	$(y^{17}+10y^{16}+\cdots+38y-1)(y^{101}+15y^{100}+\cdots+48y-1)$
c_{11}	$(y^{17}+6y^{16}+\cdots-12y-1)(y^{101}-5y^{100}+\cdots+430150y-625)$