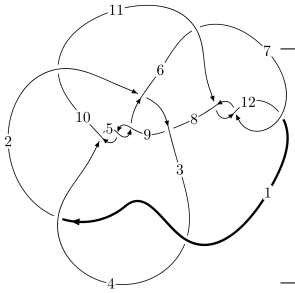
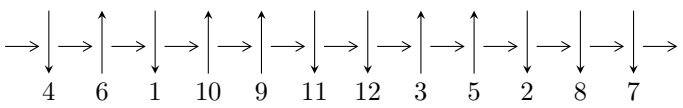
$12a_{1018}$ $(K12a_{1018})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -8.80811 \times 10^{120} u^{82} - 3.74088 \times 10^{121} u^{81} + \cdots + 1.73742 \times 10^{122} b + 3.18684 \times 10^{122}, \\ & - 6.10199 \times 10^{123} u^{82} + 1.07219 \times 10^{124} u^{81} + \cdots + 2.95362 \times 10^{123} a - 9.13225 \times 10^{123}, \\ & u^{83} - 2u^{82} + \cdots + 2u - 1 \rangle \\ I_2^u = \langle & b + 1,\ -u^3 + 11u^2 + 17a - 9u + 5,\ u^4 - u^3 + u^2 + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 87 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. $\boldsymbol{I_1^u = \langle -8.81 \times 10^{120} u^{82} - 3.74 \times 10^{121} u^{81} + \cdots + 1.74 \times 10^{122} b + 3.19 \times 10^{122},\ -6.10 \times 10^{123} u^{82} + 1.07 \times 10^{124} u^{81} + \cdots + 2.95 \times 10^{123} a - 9.13 \times 10^{123},\ u^{83} - 2u^{82} + \cdots + 2u - 1 \rangle}$

(i) Arc colorings

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

$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 2.06594u^{82} - 3.63008u^{81} + \cdots + 1.45256u + 3.09189 \\ 0.0506964u^{82} + 0.215312u^{81} + \cdots - 0.518239u - 1.83424 \end{pmatrix}$$

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

$$a_{11} = \begin{pmatrix} -2.65834u^{82} + 5.40550u^{81} + \cdots + 3.14748u - 8.59296 \\ 0.367078u^{82} - 1.09517u^{81} + \cdots + 0.336880u + 1.82664 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 2.11663u^{82} - 3.41477u^{81} + \cdots + 0.934318u + 1.25765 \\ 0.0506964u^{82} + 0.215312u^{81} + \cdots - 0.518239u - 1.83424 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1.68022u^{82} - 2.87266u^{81} + \cdots + 2.28099u + 2.27888 \\ -0.146416u^{82} + 0.413543u^{81} + \cdots + 0.0785799u - 1.71128 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u^2 + 1 \\ -u^4 - 2u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.532917u^{82} - 0.701603u^{81} + \cdots + 1.65138u + 3.72914 \\ 0.144848u^{82} - 0.280506u^{81} + \cdots + 0.0803900u + 0.0568371 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.858192u^{82} + 1.37862u^{81} + \cdots - 7.54635u - 4.74270 \\ 0.321807u^{82} - 0.770401u^{81} + \cdots - 0.119629u + 0.879748 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -2.24967u^{82} + 4.84113u^{81} + \cdots + 6.28939u - 7.92112 \\ 0.114212u^{82} - 0.200029u^{81} + \cdots + 1.38569u - 0.0353137 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4.42394u^{82} - 7.99659u^{81} + \cdots - 18.0819u + 5.80601$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3	$u^{83} - 5u^{82} + \cdots + 1900u + 289$
c_2	$u^{83} - 7u^{82} + \cdots - 9656u - 4624$
c_4, c_5, c_9	$u^{83} - 2u^{82} + \cdots + 2u - 1$
c_6	$u^{83} - 2u^{82} + \cdots - 220u + 740$
c_7, c_{11}, c_{12}	$u^{83} + 2u^{82} + \cdots + 4u + 1$
c_8	$17(17u^{83} + 146u^{82} + \cdots - 1099060u - 237379)$
c_{10}	$17(17u^{83} - 44u^{82} + \cdots - 5.84920 \times 10^7 u - 1.51215 \times 10^7)$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3	$y^{83} - 69y^{82} + \cdots + 2397356y - 83521$
c_2	$y^{83} + 27y^{82} + \cdots - 556859072y - 21381376$
c_4, c_5, c_9	$y^{83} + 84y^{82} + \cdots - 10y - 1$
c_6	$y^{83} - 24y^{82} + \cdots - 10786680y - 547600$
c_7, c_{11}, c_{12}	$y^{83} + 72y^{82} + \cdots - 10y - 1$
c_8	$289(289y^{83} - 5404y^{82} + \cdots - 2.06281 \times 10^{11}y - 5.63488 \times 10^{10})$
c_{10}	$289 \cdot (289y^{83} - 33114y^{82} + \cdots + 5536442937181744y - 228659701764004)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.782805 + 0.622350I$ $a = -0.52929 + 1.38447I$ $b = 1.37711 - 0.46112I$	$-1.01915 + 12.79430I$	0
$u = 0.782805 - 0.622350I$ $a = -0.52929 - 1.38447I$ $b = 1.37711 + 0.46112I$	$-1.01915 - 12.79430I$	0
$u = 0.885475 + 0.494695I$ $a = -0.967396 + 0.215086I$ $b = 1.283710 + 0.275470I$	$-0.56758 - 7.31597I$	0
$u = 0.885475 - 0.494695I$ $a = -0.967396 - 0.215086I$ $b = 1.283710 - 0.275470I$	$-0.56758 + 7.31597I$	0
$u = -0.798818 + 0.627121I$ $a = -0.582618 - 1.256350I$ $b = 1.37805 + 0.37911I$	$-6.14698 - 8.49089I$	0
$u = -0.798818 - 0.627121I$ $a = -0.582618 + 1.256350I$ $b = 1.37805 - 0.37911I$	$-6.14698 + 8.49089I$	0
$u = 0.826346 + 0.637145I$ $a = -0.601005 + 1.051130I$ $b = 1.341300 - 0.264474I$	$-3.82816 + 3.80053I$	0
$u = 0.826346 - 0.637145I$ $a = -0.601005 - 1.051130I$ $b = 1.341300 + 0.264474I$	$-3.82816 - 3.80053I$	0
$u = -0.901864 + 0.528328I$ $a = -0.899335 - 0.371904I$ $b = 1.304330 - 0.167248I$	$-5.75352 + 2.88332I$	0
$u = -0.901864 - 0.528328I$ $a = -0.899335 + 0.371904I$ $b = 1.304330 + 0.167248I$	$-5.75352 - 2.88332I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.525308+0.797208I$ $a=0.503368-0.745095I$ $b=0.675910+0.313019I$	$5.31452-3.79971I$	0
$u=-0.525308-0.797208I$ $a=0.503368+0.745095I$ $b=0.675910-0.313019I$	$5.31452+3.79971I$	0
$u=0.213461+0.908633I$ $a=0.630364+0.227953I$ $b=0.459200-0.065535I$	$-0.80476+1.66407I$	0
$u=0.213461-0.908633I$ $a=0.630364-0.227953I$ $b=0.459200+0.065535I$	$-0.80476-1.66407I$	0
$u=0.913020+0.584196I$ $a=-0.750655+0.558331I$ $b=1.290260+0.025129I$	$-3.54948+2.00682I$	0
$u=0.913020-0.584196I$ $a=-0.750655-0.558331I$ $b=1.290260-0.025129I$	$-3.54948-2.00682I$	0
$u=-0.953333+0.808111I$ $a=-0.237270-0.569947I$ $b=1.063910+0.103135I$	$5.08289-3.43351I$	0
$u=-0.953333-0.808111I$ $a=-0.237270+0.569947I$ $b=1.063910-0.103135I$	$5.08289+3.43351I$	0
$u=-0.620259+0.336913I$ $a=-0.283924+0.862450I$ $b=0.387199-0.684158I$	$6.55292-0.16961I$	$5.64340+1.50558I$
$u=-0.620259-0.336913I$ $a=-0.283924-0.862450I$ $b=0.387199+0.684158I$	$6.55292+0.16961I$	$5.64340-1.50558I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.520975 + 0.447008I$ $a = -0.07501 - 1.56719I$ $b = -0.072867 + 1.069050I$	$3.58604 + 7.43559I$	$0.66258 - 8.91411I$
$u = 0.520975 - 0.447008I$ $a = -0.07501 + 1.56719I$ $b = -0.072867 - 1.069050I$	$3.58604 - 7.43559I$	$0.66258 + 8.91411I$
$u = -0.488053 + 0.429242I$ $a = 0.11248 + 1.52114I$ $b = -0.184482 - 0.935678I$	$-1.22427 - 3.86628I$	$-4.46809 + 8.48691I$
$u = -0.488053 - 0.429242I$ $a = 0.11248 - 1.52114I$ $b = -0.184482 + 0.935678I$	$-1.22427 + 3.86628I$	$-4.46809 - 8.48691I$
$u = 0.408975 + 0.441083I$ $a = 1.81487 + 0.58604I$ $b = -0.028839 - 0.549577I$	$3.48331 - 4.12239I$	$1.39758 + 0.54471I$
$u = 0.408975 - 0.441083I$ $a = 1.81487 - 0.58604I$ $b = -0.028839 + 0.549577I$	$3.48331 + 4.12239I$	$1.39758 - 0.54471I$
$u = -0.223262 + 0.556235I$ $a = 0.78004 + 1.47977I$ $b = -1.31601 - 0.58172I$	$-0.65938 - 5.19774I$	$-6.58071 + 7.61362I$
$u = -0.223262 - 0.556235I$ $a = 0.78004 - 1.47977I$ $b = -1.31601 + 0.58172I$	$-0.65938 + 5.19774I$	$-6.58071 - 7.61362I$
$u = 0.392922 + 0.435677I$ $a = 0.49360 - 1.64916I$ $b = -0.555247 + 0.749866I$	$1.53412 + 0.79906I$	$-2.20367 - 5.32165I$
$u = 0.392922 - 0.435677I$ $a = 0.49360 + 1.64916I$ $b = -0.555247 - 0.749866I$	$1.53412 - 0.79906I$	$-2.20367 + 5.32165I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.116182+0.566131I$ $a=\ \ 0.701849+0.864198I$ $b=-1.45040-0.29162I$	$-1.20129+1.76650I$	$-7.97021-0.46497I$
$u=-0.116182-0.566131I$ $a=\ \ 0.701849-0.864198I$ $b=-1.45040+0.29162I$	$-1.20129-1.76650I$	$-7.97021+0.46497I$
$u=\ \ 0.06981+1.42084I$ $a=\ \ 1.052230-0.762563I$ $b=-0.290686+0.045735I$	$-2.33913-2.71471I$	0
$u=\ \ 0.06981-1.42084I$ $a=\ \ 1.052230+0.762563I$ $b=-0.290686-0.045735I$	$-2.33913+2.71471I$	0
$u=\ \ 0.175745+0.549432I$ $a=\ \ 0.68890-1.25274I$ $b=-1.35592+0.43714I$	$-4.85678+1.65891I$	$-12.61039-4.40196I$
$u=\ \ 0.175745-0.549432I$ $a=\ \ 0.68890+1.25274I$ $b=-1.35592-0.43714I$	$-4.85678-1.65891I$	$-12.61039+4.40196I$
$u=\ \ 0.03751+1.43024I$ $a=-0.11758-3.57447I$ $b=-0.911378+0.077861I$	$-3.37555+2.94604I$	0
$u=\ \ 0.03751-1.43024I$ $a=-0.11758+3.57447I$ $b=-0.911378-0.077861I$	$-3.37555-2.94604I$	0
$u=-0.07652+1.42904I$ $a=\ \ 0.641968+1.151170I$ $b=-0.470044-0.240065I$	$-6.90616-0.48127I$	0
$u=-0.07652-1.42904I$ $a=\ \ 0.641968-1.151170I$ $b=-0.470044+0.240065I$	$-6.90616+0.48127I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.472143 + 0.295646I$ $a = 0.361448 - 0.938111I$ $b = -0.025837 + 0.465349I$	$0.819548 + 0.994646I$	$3.41663 - 3.70418I$
$u = 0.472143 - 0.295646I$ $a = 0.361448 + 0.938111I$ $b = -0.025837 - 0.465349I$	$0.819548 - 0.994646I$	$3.41663 + 3.70418I$
$u = -0.17229 + 1.44421I$ $a = -0.074823 + 0.428015I$ $b = 0.169329 - 0.919425I$	$0.80655 - 2.93738I$	0
$u = -0.17229 - 1.44421I$ $a = -0.074823 - 0.428015I$ $b = 0.169329 + 0.919425I$	$0.80655 + 2.93738I$	0
$u = 0.11983 + 1.45548I$ $a = 0.007865 - 0.755387I$ $b = -0.328958 + 0.823755I$	$-4.92161 + 3.00725I$	0
$u = 0.11983 - 1.45548I$ $a = 0.007865 + 0.755387I$ $b = -0.328958 - 0.823755I$	$-4.92161 - 3.00725I$	0
$u = -0.02245 + 1.47774I$ $a = -1.23231 + 0.76609I$ $b = -1.250300 - 0.204227I$	$-7.82085 - 1.05745I$	0
$u = -0.02245 - 1.47774I$ $a = -1.23231 - 0.76609I$ $b = -1.250300 + 0.204227I$	$-7.82085 + 1.05745I$	0
$u = -0.345026 + 0.375822I$ $a = 1.82514 - 0.01402I$ $b = -0.174745 + 0.326519I$	$-1.31064 + 0.88896I$	$-4.75289 + 0.24255I$
$u = -0.345026 - 0.375822I$ $a = 1.82514 + 0.01402I$ $b = -0.174745 - 0.326519I$	$-1.31064 - 0.88896I$	$-4.75289 - 0.24255I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.11513 + 1.49082I$ $a = -0.191306 - 0.823782I$ $b = -0.612194 + 1.160240I$	$-4.80565 + 2.60717I$	0
$u = \quad 0.11513 - 1.49082I$ $a = -0.191306 + 0.823782I$ $b = -0.612194 - 1.160240I$	$-4.80565 - 2.60717I$	0
$u = -0.13971 + 1.49410I$ $a = -0.247651 + 0.725073I$ $b = -0.324935 - 1.355310I$	$-7.56485 - 6.08862I$	0
$u = -0.13971 - 1.49410I$ $a = -0.247651 - 0.725073I$ $b = -0.324935 + 1.355310I$	$-7.56485 + 6.08862I$	0
$u = \quad 0.15069 + 1.49801I$ $a = -0.297418 - 0.685274I$ $b = -0.19342 + 1.45635I$	$-2.81837 + 9.82043I$	0
$u = \quad 0.15069 - 1.49801I$ $a = -0.297418 + 0.685274I$ $b = -0.19342 - 1.45635I$	$-2.81837 - 9.82043I$	0
$u = \quad 0.04275 + 1.52628I$ $a = -0.299429 - 0.574584I$ $b = -1.75212 + 0.68776I$	$-11.77850 + 2.40546I$	0
$u = \quad 0.04275 - 1.52628I$ $a = -0.299429 + 0.574584I$ $b = -1.75212 - 0.68776I$	$-11.77850 - 2.40546I$	0
$u = -0.02949 + 1.52815I$ $a = -0.317392 + 0.417495I$ $b = -1.85898 - 0.48742I$	$-8.17636 + 1.26217I$	0
$u = -0.02949 - 1.52815I$ $a = -0.317392 - 0.417495I$ $b = -1.85898 + 0.48742I$	$-8.17636 - 1.26217I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.05381+1.52754I$ $a=-0.255814+0.673122I$ $b=-1.68693-0.86794I$	$-7.60320-6.14298I$	0
$u=-0.05381-1.52754I$ $a=-0.255814-0.673122I$ $b=-1.68693+0.86794I$	$-7.60320+6.14298I$	0
$u=0.370668+0.270581I$ $a=2.90500-0.92129I$ $b=-0.644155-0.280257I$	$1.93886+1.76536I$	$-0.91281-6.54865I$
$u=0.370668-0.270581I$ $a=2.90500+0.92129I$ $b=-0.644155+0.280257I$	$1.93886-1.76536I$	$-0.91281+6.54865I$
$u=0.26189+1.57321I$ $a=0.443692+1.155900I$ $b=1.51111-0.56191I$	$-8.2311+16.6555I$	0
$u=0.26189-1.57321I$ $a=0.443692-1.155900I$ $b=1.51111+0.56191I$	$-8.2311-16.6555I$	0
$u=-0.26540+1.57646I$ $a=0.395466-1.114550I$ $b=1.51838+0.50049I$	$-13.3848-12.4184I$	0
$u=-0.26540-1.57646I$ $a=0.395466+1.114550I$ $b=1.51838-0.50049I$	$-13.3848+12.4184I$	0
$u=0.26971+1.58282I$ $a=0.351050+1.031460I$ $b=1.49352-0.41237I$	$-11.12430+7.83212I$	0
$u=0.26971-1.58282I$ $a=0.351050-1.031460I$ $b=1.49352+0.41237I$	$-11.12430-7.83212I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.373590+0.067298I$ $a=\ \ 6.22963+0.85922I$ $b=-1.134360+0.116039I$	$0.84708+3.20049I$	$10.64520+4.54047I$
$u=-0.373590-0.067298I$ $a=\ \ 6.22963-0.85922I$ $b=-1.134360-0.116039I$	$0.84708-3.20049I$	$10.64520-4.54047I$
$u=\ \ 0.28768+1.59786I$ $a=\ \ 0.251990+0.833989I$ $b=\ \ 1.41939-0.21322I$	$-10.80970+6.43057I$	0
$u=\ \ 0.28768-1.59786I$ $a=\ \ 0.251990-0.833989I$ $b=\ \ 1.41939+0.21322I$	$-10.80970-6.43057I$	0
$u=-0.25503+1.60505I$ $a=\ \ 0.494464-0.846169I$ $b=\ \ 1.277530+0.384526I$	$-2.83571-7.53120I$	0
$u=-0.25503-1.60505I$ $a=\ \ 0.494464+0.846169I$ $b=\ \ 1.277530-0.384526I$	$-2.83571+7.53120I$	0
$u=-0.30802+1.59835I$ $a=\ \ 0.160796-0.731799I$ $b=\ \ 1.395700+0.082663I$	$-12.77920-1.67211I$	0
$u=-0.30802-1.59835I$ $a=\ \ 0.160796+0.731799I$ $b=\ \ 1.395700-0.082663I$	$-12.77920+1.67211I$	0
$u=\ \ 0.33005+1.59698I$ $a=\ \ 0.112595+0.631850I$ $b=\ \ 1.338780+0.012446I$	$-7.38416-2.68840I$	0
$u=\ \ 0.33005-1.59698I$ $a=\ \ 0.112595-0.631850I$ $b=\ \ 1.338780-0.012446I$	$-7.38416+2.68840I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.150260+0.330313I$ $a=-0.60204+2.73035I$ $b=-1.003660-0.126295I$	$-1.78354-0.56624I$	$-5.83264-3.56726I$
$u=-0.150260-0.330313I$ $a=-0.60204-2.73035I$ $b=-1.003660+0.126295I$	$-1.78354+0.56624I$	$-5.83264+3.56726I$
$u=\ \ 0.342169$ $a=\ \ 7.14812$ $b=-1.11647$	-3.19577	13.6620

II. $I_2^u = \langle b+1,\ -u^3+11u^2+17a-9u+5,\ u^4-u^3+u^2+1\rangle$

(i) Arc colorings

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

$$a_{10} = \begin{pmatrix}0\\u\end{pmatrix}$$

$$a_2 = \begin{pmatrix}0.0588235u^3 - 0.647059u^2 + 0.529412u - 0.294118\\-1\end{pmatrix}$$

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

$$a_{11} = \begin{pmatrix}-0.0103806u^3 - 0.00346021u^2 + 0.318339u - 0.242215\\-0.588235u^3 + 0.470588u^2 + 0.705882u - 0.0588235\end{pmatrix}$$

$$a_1 = \begin{pmatrix}0.0588235u^3 - 0.647059u^2 + 0.529412u - 1.29412\\-1\end{pmatrix}$$

$$a_3 = \begin{pmatrix}0.0588235u^3 - 0.647059u^2 + 0.529412u - 0.294118\\-1\end{pmatrix}$$

$$a_9 = \begin{pmatrix}-u\\u^3+u\end{pmatrix}$$

$$a_6 = \begin{pmatrix}u^2+1\\-u^3-u^2+1\end{pmatrix}$$

$$a_7 = \begin{pmatrix}0.0726644u^3 + 1.02422u^2 - 0.228374u + 0.695502\\0.117647u^3 - 0.294118u^2 + 0.0588235u + 0.411765\end{pmatrix}$$

$$a_8 = \begin{pmatrix}-0.283737u^3 + 0.238754u^2 - 0.965398u - 0.287197\\0.588235u^3 + 0.529412u^2 + 0.294118u + 0.0588235\end{pmatrix}$$

$$a_{12} = \begin{pmatrix}-0.737024u^3 - 0.245675u^2 + 0.602076u - 0.197232\\0.235294u^3 - 0.588235u^2 + 0.117647u - 1.17647\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{631}{289}u^3 + \frac{403}{289}u^2 + \frac{2228}{289}u - \frac{1268}{289}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u-1)^4$
c_2	u^4
c_3	$(u+1)^4$
c_4, c_5	$u^4 - u^3 + u^2 + 1$
c_6	$u^4 + u^3 + 5u^2 - u + 2$
c_7	$u^4 - u^3 + 3u^2 - 2u + 1$
c_8	$17(17u^4 - 3u^3 + 11u^2 + 1)$
c_9	$u^4 + u^3 + u^2 + 1$
c_{10}	$17(17u^4 + 3u^3 - 4u^2 + u + 2)$
c_{11}, c_{12}	$u^4 + u^3 + 3u^2 + 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3	$(y-1)^4$
c_2	y^4
c_4, c_5, c_9	$y^4 + y^3 + 3y^2 + 2y + 1$
c_6	$y^4 + 9y^3 + 31y^2 + 19y + 4$
c_7, c_{11}, c_{12}	$y^4 + 5y^3 + 7y^2 + 2y + 1$
c_8	$289(289y^4 + 365y^3 + 155y^2 + 22y + 1)$
c_{10}	$289(289y^4 - 145y^3 + 78y^2 - 17y + 4)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.351808+0.720342I$ $a=-0.195047+0.703062I$ $b=-1.00000$	$-1.85594-1.41510I$	$-6.55007+4.61446I$
$u=-0.351808-0.720342I$ $a=-0.195047-0.703062I$ $b=-1.00000$	$-1.85594+1.41510I$	$-6.55007-4.61446I$
$u=\ \ 0.851808+0.911292I$ $a=\ \ 0.136224-0.449937I$ $b=-1.00000$	$5.14581+3.16396I$	$-1.25097+11.86905I$
$u=\ \ 0.851808-0.911292I$ $a=\ \ 0.136224+0.449937I$ $b=-1.00000$	$5.14581-3.16396I$	$-1.25097-11.86905I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^4)(u^{83}-5u^{82}+\cdots+1900u+289)$
c_2	$u^4(u^{83}-7u^{82}+\cdots-9656u-4624)$
c_3	$((u+1)^4)(u^{83}-5u^{82}+\cdots+1900u+289)$
c_4, c_5	$(u^4-u^3+u^2+1)(u^{83}-2u^{82}+\cdots+2u-1)$
c_6	$(u^4+u^3+5u^2-u+2)(u^{83}-2u^{82}+\cdots-220u+740)$
c_7	$(u^4-u^3+3u^2-2u+1)(u^{83}+2u^{82}+\cdots+4u+1)$
c_8	$289(17u^4-3u^3+11u^2+1)$ $\cdot(17u^{83}+146u^{82}+\cdots-1099060u-237379)$
c_9	$(u^4+u^3+u^2+1)(u^{83}-2u^{82}+\cdots+2u-1)$
c_{10}	$289(17u^4+3u^3-4u^2+u+2)$ $\cdot(17u^{83}-44u^{82}+\cdots-58491986u-15121498)$
c_{11}, c_{12}	$(u^4+u^3+3u^2+2u+1)(u^{83}+2u^{82}+\cdots+4u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_3	$((y-1)^4)(y^{83} - 69y^{82} + \cdots + 2397356y - 83521)$
c_2	$y^4(y^{83} + 27y^{82} + \cdots - 5.56859 \times 10^8 y - 2.13814 \times 10^7)$
c_4, c_5, c_9	$(y^4 + y^3 + 3y^2 + 2y + 1)(y^{83} + 84y^{82} + \cdots - 10y - 1)$
c_6	$(y^4 + 9y^3 + 31y^2 + 19y + 4)$ $\cdot (y^{83} - 24y^{82} + \cdots - 10786680y - 547600)$
c_7, c_{11}, c_{12}	$(y^4 + 5y^3 + 7y^2 + 2y + 1)(y^{83} + 72y^{82} + \cdots - 10y - 1)$
c_8	$83521(289y^4 + 365y^3 + 155y^2 + 22y + 1)$ $\cdot (289y^{83} - 5404y^{82} + \cdots - 206281469138y - 56348789641)$
c_{10}	$83521(289y^4 - 145y^3 + 78y^2 - 17y + 4)$ $\cdot (289y^{83} - 33114y^{82} + \cdots + 5536442937181744y - 228659701764004)$