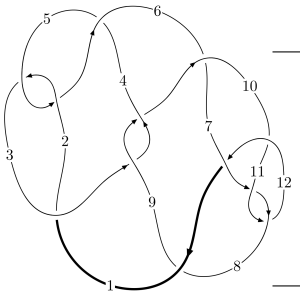
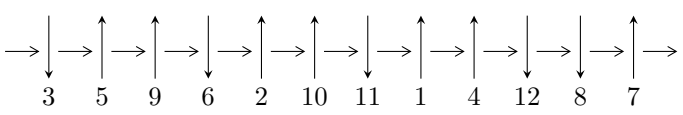
$12a_{0174}$ $(K12a_{0174})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$I_1^u = \langle 2u^{94} - 6u^{93} + \cdots + 2b - 2,\ -2u^{94} + 2u^{93} + \cdots + 2a - 1,\ u^{95} - 3u^{94} + \cdots - 2u + 1 \rangle$

$I_2^u = \langle -u^5 a + 2u^3 a - 2au + b,\ -u^4 a - u^5 - u^4 + u^2 a + u^3 + a^2 + au + u^2 + u,\ u^6 + u^5 - u^4 - 2u^3 + u + 1 \rangle$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 107 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. $I_1^u =$
$\langle 2u^{94}-6u^{93}+\cdots+2b-2,\ -2u^{94}+2u^{93}+\cdots+2a-1,\ u^{95}-3u^{94}+\cdots-2u+1\rangle$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -u \\ -u^3+u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^3 \\ -u^3+u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^{94}-u^{93}+\cdots+2u+\frac{1}{2} \\ -u^{94}+3u^{93}+\cdots-\frac{5}{2}u+1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u^{94}+2u^{93}+\cdots+u+\frac{3}{2} \\ \frac{1}{2}u^{91}-\frac{1}{2}u^{90}+\cdots-u^2+\frac{1}{2}u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^8-u^6+u^4+1 \\ u^8-2u^6+2u^4 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^{94}-6u^{93}+\cdots+3u-\frac{5}{2} \\ -5u^{94}+6u^{93}+\cdots+3u^2-\frac{7}{2}u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^3 \\ u^5-u^3+u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u^8-u^6+u^4+1 \\ u^{10}-2u^8+3u^6-2u^4+u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} \frac{3}{2}u^{94}-\frac{11}{2}u^{93}+\cdots+4u-\frac{3}{2} \\ -\frac{7}{2}u^{94}+\frac{9}{2}u^{93}+\cdots+\frac{5}{2}u^2-\frac{5}{2}u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u^{94}-\frac{27}{2}u^{93}+\cdots+\frac{13}{2}u-2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{95} + 29u^{94} + \cdots - 12u - 1$
c_2, c_5	$u^{95} + 7u^{94} + \cdots - 4u - 1$
c_3, c_9	$u^{95} + u^{94} + \cdots - 12288u - 4096$
c_6, c_8	$u^{95} - 3u^{94} + \cdots + 4216u - 1201$
c_7, c_{11}	$u^{95} + 3u^{94} + \cdots - 2u - 1$
c_{10}	$u^{95} + 43u^{94} + \cdots + 8u + 1$
c_{12}	$u^{95} + 9u^{94} + \cdots + 6u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{95} + 81y^{94} + \cdots - 492y - 1$
c_2, c_5	$y^{95} + 29y^{94} + \cdots - 12y - 1$
c_3, c_9	$y^{95} - 65y^{94} + \cdots + 184549376y - 16777216$
c_6, c_8	$y^{95} - 83y^{94} + \cdots + 13537528y - 1442401$
c_7, c_{11}	$y^{95} - 43y^{94} + \cdots + 8y - 1$
c_{10}	$y^{95} + 21y^{94} + \cdots - 44y - 1$
c_{12}	$y^{95} + y^{94} + \cdots + 76y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.780961+0.613854I$ $a=-1.148870-0.337111I$ $b=\ \ 0.164002+1.387420I$	$6.51601-0.63092I$	0
$u=-0.780961-0.613854I$ $a=-1.148870+0.337111I$ $b=\ \ 0.164002-1.387420I$	$6.51601+0.63092I$	0
$u=-0.814626+0.609563I$ $a=\ \ 1.35420+0.79384I$ $b=\ \ 0.471342-1.314330I$	$6.41936+5.44116I$	0
$u=-0.814626-0.609563I$ $a=\ \ 1.35420-0.79384I$ $b=\ \ 0.471342+1.314330I$	$6.41936-5.44116I$	0
$u=\ \ 0.962721+0.330637I$ $a=\ \ 0.362055+0.865330I$ $b=-0.390291+0.463584I$	$-1.64642-1.19817I$	0
$u=\ \ 0.962721-0.330637I$ $a=\ \ 0.362055-0.865330I$ $b=-0.390291-0.463584I$	$-1.64642+1.19817I$	0
$u=\ \ 0.550887+0.774748I$ $a=\ \ 0.203078-0.527598I$ $b=\ \ 0.91385-2.47044I$	$11.5214-8.2023I$	0
$u=\ \ 0.550887-0.774748I$ $a=\ \ 0.203078+0.527598I$ $b=\ \ 0.91385+2.47044I$	$11.5214+8.2023I$	0
$u=\ \ 0.538994+0.781645I$ $a=-0.413072+0.514846I$ $b=-1.21805+1.93499I$	$12.33230-1.87951I$	0
$u=\ \ 0.538994-0.781645I$ $a=-0.413072-0.514846I$ $b=-1.21805-1.93499I$	$12.33230+1.87951I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.049250+0.090947I$ $a=-1.13294-1.38229I$ $b=-1.130640-0.708429I$	$-1.41613-3.48168I$	0
$u=-1.049250-0.090947I$ $a=-1.13294+1.38229I$ $b=-1.130640+0.708429I$	$-1.41613+3.48168I$	0
$u=1.057200+0.026608I$ $a=0.53847-3.81847I$ $b=0.32449-1.51301I$	$1.39128+2.84660I$	0
$u=1.057200-0.026608I$ $a=0.53847+3.81847I$ $b=0.32449+1.51301I$	$1.39128-2.84660I$	0
$u=1.038650+0.212196I$ $a=1.54257-0.91022I$ $b=0.952348+0.006395I$	$-3.09968-0.14692I$	0
$u=1.038650-0.212196I$ $a=1.54257+0.91022I$ $b=0.952348-0.006395I$	$-3.09968+0.14692I$	0
$u=-1.06742$ $a=-0.00525876$ $b=0.484339$	2.20266	0
$u=0.442792+0.809663I$ $a=-0.447657-0.371359I$ $b=-0.11488-2.77795I$	$11.78680+5.10800I$	0
$u=0.442792-0.809663I$ $a=-0.447657+0.371359I$ $b=-0.11488+2.77795I$	$11.78680-5.10800I$	0
$u=-0.998749+0.411686I$ $a=-0.51601-2.07092I$ $b=-0.89051-1.32331I$	$-1.81484-0.05574I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.998749-0.411686I$ $a=-0.51601+2.07092I$ $b=-0.89051+1.32331I$	$-1.81484+0.05574I$	0
$u=\ \ 0.431435+0.809966I$ $a=\ \ 0.262891+0.408976I$ $b=-0.33236+3.10094I$	$10.8466+11.3857I$	0
$u=\ \ 0.431435-0.809966I$ $a=\ \ 0.262891-0.408976I$ $b=-0.33236-3.10094I$	$10.8466-11.3857I$	0
$u=\ \ 0.481177+0.776347I$ $a=-0.635172+0.078226I$ $b=-0.154742-0.414216I$	$7.59709+1.51037I$	0
$u=\ \ 0.481177-0.776347I$ $a=-0.635172-0.078226I$ $b=-0.154742+0.414216I$	$7.59709-1.51037I$	0
$u=-0.488387+0.768831I$ $a=\ \ 0.226129-0.739384I$ $b=-0.52679-3.19996I$	$6.78240+1.47720I$	0
$u=-0.488387-0.768831I$ $a=\ \ 0.226129+0.739384I$ $b=-0.52679+3.19996I$	$6.78240-1.47720I$	0
$u=\ \ 0.985538+0.468332I$ $a=\ \ 1.71416+1.11430I$ $b=-0.53775+1.45196I$	$-0.41801-1.39796I$	0
$u=\ \ 0.985538-0.468332I$ $a=\ \ 1.71416-1.11430I$ $b=-0.53775-1.45196I$	$-0.41801+1.39796I$	0
$u=-0.470750+0.775433I$ $a=\ \ 0.007864+0.757463I$ $b=\ \ 1.22123+3.04799I$	$6.68359-4.44968I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.470750-0.775433I$ $a=\ \ 0.007864-0.757463I$ $b=\ \ 1.22123-3.04799I$	$6.68359+4.44968I$	0
$u=\ \ 0.498994+0.747728I$ $a=\ \ 0.553295-0.061468I$ $b=-0.488696-0.759297I$	$3.92549-2.45104I$	0
$u=\ \ 0.498994-0.747728I$ $a=\ \ 0.553295+0.061468I$ $b=-0.488696+0.759297I$	$3.92549+2.45104I$	0
$u=\ \ 0.450266+0.769200I$ $a=\ \ 0.484149-0.086895I$ $b=-0.85386+1.26850I$	$3.65208+5.26825I$	$5.67264-4.34315I$
$u=\ \ 0.450266-0.769200I$ $a=\ \ 0.484149+0.086895I$ $b=-0.85386-1.26850I$	$3.65208-5.26825I$	$5.67264+4.34315I$
$u=-0.997603+0.486225I$ $a=\ \ 0.07933+1.71375I$ $b=\ \ 0.850725+0.977718I$	$-0.26339+4.20614I$	0
$u=-0.997603-0.486225I$ $a=\ \ 0.07933-1.71375I$ $b=\ \ 0.850725-0.977718I$	$-0.26339-4.20614I$	0
$u=-0.818001+0.283222I$ $a=-1.22395+0.95854I$ $b=-0.838364+0.628083I$	$-0.91580+2.96787I$	$5.16431-4.85868I$
$u=-0.818001-0.283222I$ $a=-1.22395-0.95854I$ $b=-0.838364-0.628083I$	$-0.91580-2.96787I$	$5.16431+4.85868I$
$u=-1.133080+0.079025I$ $a=-0.74599+3.05335I$ $b=\ \ 0.12767+1.70298I$	$6.36459-3.00517I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.133080-0.079025I$ $a=-0.74599-3.05335I$ $b=\ \ 0.12767-1.70298I$	$6.36459+3.00517I$	0
$u=\ \ 1.033340+0.475771I$ $a=-2.20424-0.41049I$ $b=\ \ 0.01972-1.63353I$	$-1.30770-6.29698I$	0
$u=\ \ 1.033340-0.475771I$ $a=-2.20424+0.41049I$ $b=\ \ 0.01972+1.63353I$	$-1.30770+6.29698I$	0
$u=\ \ 1.068430+0.396628I$ $a=-0.731444-0.056111I$ $b=-0.051532-0.930237I$	$-4.58435-1.29164I$	0
$u=\ \ 1.068430-0.396628I$ $a=-0.731444+0.056111I$ $b=-0.051532+0.930237I$	$-4.58435+1.29164I$	0
$u=-1.136250+0.096416I$ $a=\ \ 0.24065-3.64517I$ $b=-0.42912-2.02773I$	$5.49121-9.18730I$	0
$u=-1.136250-0.096416I$ $a=\ \ 0.24065+3.64517I$ $b=-0.42912+2.02773I$	$5.49121+9.18730I$	0
$u=\ \ 1.118070+0.307627I$ $a=\ \ 0.89147+1.34016I$ $b=\ \ 0.446385+1.300890I$	$0.16831-2.74248I$	0
$u=\ \ 1.118070-0.307627I$ $a=\ \ 0.89147-1.34016I$ $b=\ \ 0.446385-1.300890I$	$0.16831+2.74248I$	0
$u=-1.074940+0.455048I$ $a=-0.331036-0.869702I$ $b=-0.983402-0.770520I$	$-4.19048+5.73083I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.074940-0.455048I$ $a=-0.331036+0.869702I$ $b=-0.983402+0.770520I$	$-4.19048-5.73083I$	0
$u=1.122510+0.332451I$ $a=-0.269407-1.226360I$ $b=-0.122905-1.274200I$	$-0.10202+2.84328I$	0
$u=1.122510-0.332451I$ $a=-0.269407+1.226360I$ $b=-0.122905+1.274200I$	$-0.10202-2.84328I$	0
$u=-0.405906+0.713088I$ $a=0.0772709+0.1123500I$ $b=1.131810+0.566237I$	$1.26600-1.90136I$	$2.51207-0.74357I$
$u=-0.405906-0.713088I$ $a=0.0772709-0.1123500I$ $b=1.131810-0.566237I$	$1.26600+1.90136I$	$2.51207+0.74357I$
$u=-0.489486+0.653058I$ $a=0.219391-0.026142I$ $b=0.604620-0.877826I$	$1.71463-0.14968I$	$4.78717+1.52967I$
$u=-0.489486-0.653058I$ $a=0.219391+0.026142I$ $b=0.604620+0.877826I$	$1.71463+0.14968I$	$4.78717-1.52967I$
$u=-1.048610+0.559029I$ $a=-0.84830+1.23363I$ $b=0.344607+1.144680I$	$0.05936+4.88677I$	0
$u=-1.048610-0.559029I$ $a=-0.84830-1.23363I$ $b=0.344607-1.144680I$	$0.05936-4.88677I$	0
$u=1.037050+0.640450I$ $a=3.43025+0.11156I$ $b=1.40816+2.01666I$	$10.07100+2.86446I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.037050 - 0.640450I$ $a = 3.43025 - 0.11156I$ $b = 1.40816 - 2.01666I$	$10.07100 - 2.86446I$	0
$u = 1.059720 + 0.608371I$ $a = 0.861944 + 0.972153I$ $b = -0.415084 + 0.511149I$	$2.25792 - 2.70432I$	0
$u = 1.059720 - 0.608371I$ $a = 0.861944 - 0.972153I$ $b = -0.415084 - 0.511149I$	$2.25792 + 2.70432I$	0
$u = 1.046590 + 0.640226I$ $a = -3.02435 + 0.44398I$ $b = -1.60073 - 1.41737I$	$10.81700 - 3.47625I$	0
$u = 1.046590 - 0.640226I$ $a = -3.02435 - 0.44398I$ $b = -1.60073 + 1.41737I$	$10.81700 + 3.47625I$	0
$u = -1.123850 + 0.492704I$ $a = 1.055900 - 0.745592I$ $b = -0.567989 - 0.875408I$	$0.96122 + 10.56030I$	0
$u = -1.123850 - 0.492704I$ $a = 1.055900 + 0.745592I$ $b = -0.567989 + 0.875408I$	$0.96122 - 10.56030I$	0
$u = -1.117800 + 0.509792I$ $a = -0.91098 + 1.32408I$ $b = 0.752832 + 1.006100I$	$1.50574 + 4.89986I$	0
$u = -1.117800 - 0.509792I$ $a = -0.91098 - 1.32408I$ $b = 0.752832 - 1.006100I$	$1.50574 - 4.89986I$	0
$u = -1.089020 + 0.573261I$ $a = 1.59858 + 1.01418I$ $b = 1.36667 - 0.50084I$	$-0.73386 + 6.83458I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.089020-0.573261I$ $a=\ \ 1.59858-1.01418I$ $b=\ \ 1.36667+0.50084I$	$-0.73386-6.83458I$	0
$u=-1.070370+0.616569I$ $a=-4.10787+1.29996I$ $b=-1.29406+3.14806I$	$5.04940+3.76135I$	0
$u=-1.070370-0.616569I$ $a=-4.10787-1.29996I$ $b=-1.29406-3.14806I$	$5.04940-3.76135I$	0
$u=\ \ 1.075990+0.618091I$ $a=\ \ 0.204895+0.417350I$ $b=-0.052818+0.761747I$	$5.82498-6.77346I$	0
$u=\ \ 1.075990-0.618091I$ $a=\ \ 0.204895-0.417350I$ $b=-0.052818-0.761747I$	$5.82498+6.77346I$	0
$u=-1.080650+0.614563I$ $a=\ \ 4.41582-0.48798I$ $b=\ \ 1.93659-2.88567I$	$4.86780+9.69724I$	0
$u=-1.080650-0.614563I$ $a=\ \ 4.41582+0.48798I$ $b=\ \ 1.93659+2.88567I$	$4.86780-9.69724I$	0
$u=\ \ 1.087940+0.606131I$ $a=-1.89689+0.29335I$ $b=-1.06745-1.47271I$	$1.75821-10.46800I$	0
$u=\ \ 1.087940-0.606131I$ $a=-1.89689-0.29335I$ $b=-1.06745+1.47271I$	$1.75821+10.46800I$	0
$u=\ \ 1.103320+0.620150I$ $a=\ \ 3.00445+1.91427I$ $b=\ \ 0.35053+3.02366I$	$9.8130-10.4617I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.103320 - 0.620150I$ $a = 3.00445 - 1.91427I$ $b = 0.35053 - 3.02366I$	$9.8130 + 10.4617I$	0
$u = 1.107970 + 0.616328I$ $a = -3.72207 - 1.65268I$ $b = -0.81689 - 3.27015I$	$8.8261 - 16.7248I$	0
$u = 1.107970 - 0.616328I$ $a = -3.72207 + 1.65268I$ $b = -0.81689 + 3.27015I$	$8.8261 + 16.7248I$	0
$u = -0.217141 + 0.694895I$ $a = -0.757905 + 0.260323I$ $b = 0.452422 - 0.998289I$	$4.06957 - 0.36434I$	$7.64440 + 0.20889I$
$u = -0.217141 - 0.694895I$ $a = -0.757905 - 0.260323I$ $b = 0.452422 + 0.998289I$	$4.06957 + 0.36434I$	$7.64440 - 0.20889I$
$u = -0.175942 + 0.692243I$ $a = 0.961313 - 0.565831I$ $b = -0.145143 + 0.854305I$	$3.65758 - 6.12809I$	$6.30632 + 5.77573I$
$u = -0.175942 - 0.692243I$ $a = 0.961313 + 0.565831I$ $b = -0.145143 - 0.854305I$	$3.65758 + 6.12809I$	$6.30632 - 5.77573I$
$u = 0.563051 + 0.342434I$ $a = 0.21207 + 1.94850I$ $b = -0.586216 - 0.752758I$	$0.82985 - 2.31768I$	$3.86321 + 5.04546I$
$u = 0.563051 - 0.342434I$ $a = 0.21207 - 1.94850I$ $b = -0.586216 + 0.752758I$	$0.82985 + 2.31768I$	$3.86321 - 5.04546I$
$u = -0.474614 + 0.424865I$ $a = 0.471420 + 0.106327I$ $b = 0.710860 - 0.278059I$	$1.164430 - 0.256982I$	$9.18842 + 0.97858I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.474614-0.424865I$ $a=\ \ 0.471420-0.106327I$ $b=\ \ 0.710860+0.278059I$	$1.164430+0.256982I$	$9.18842-0.97858I$
$u=-0.093168+0.511687I$ $a=-0.032938-1.288750I$ $b=-0.489285+0.324549I$	$-1.69450-1.94976I$	$-0.97114+4.55157I$
$u=-0.093168-0.511687I$ $a=-0.032938+1.288750I$ $b=-0.489285-0.324549I$	$-1.69450+1.94976I$	$-0.97114-4.55157I$
$u=\ \ 0.320233+0.371519I$ $a=-0.36987-2.03603I$ $b=-0.193491+0.947554I$	$0.53986+2.49744I$	$1.77366-1.90679I$
$u=\ \ 0.320233-0.371519I$ $a=-0.36987+2.03603I$ $b=-0.193491-0.947554I$	$0.53986-2.49744I$	$1.77366+1.90679I$

II. $I_2^u = \langle -u^5a + 2u^3a - 2au + b,\ -u^4a - u^5 - u^4 + u^2a + u^3 + a^2 + au + u^2 + u,\ u^6 + u^5 - u^4 - 2u^3 + u + 1\rangle$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

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

$$a_3 = \begin{pmatrix} a \\ u^5a - 2u^3a + 2au \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u^4 - u^3 + u^2 + a + u \\ u^5a - 2u^3a - u^3 + 2au + u + 1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u^3 \\ u^5 - u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} a \\ u^5a - 2u^3a + 2au \end{pmatrix}$$

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

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

$$a_5 = \begin{pmatrix} -u^5a + u^3a - au + a \\ -u^5a - u^4a + u^3a + 2u^2a - a \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -6u^5a - 2u^4a + 10u^3a + 4u^4 + 3u^2a - u^3 - 9au - 5u^2 - 2a - 4u + 3$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4, c_5	$(u^2-u+1)^6$
c_2	$(u^2+u+1)^6$
c_3, c_9	u^{12}
c_6, c_8, c_{11}	$(u^6-u^5-u^4+2u^3-u+1)^2$
c_7	$(u^6+u^5-u^4-2u^3+u+1)^2$
c_{10}, c_{12}	$(u^6-3u^5+5u^4-4u^3+2u^2-u+1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4 c_5	$(y^2+y+1)^6$
c_3, c_9	y^{12}
c_6, c_7, c_8 c_{11}	$(y^6-3y^5+5y^4-4y^3+2y^2-y+1)^2$
c_{10}, c_{12}	$(y^6+y^5+5y^4+6y^2+3y+1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.002190 + 0.295542I$ $a = -0.54263 + 1.33698I$ $b = -0.500000 + 0.866025I$	$-1.89061 - 2.95419I$	$-3.93112 + 4.16322I$
$u = 1.002190 + 0.295542I$ $a = -0.88654 - 1.13843I$ $b = -0.500000 - 0.866025I$	$-1.89061 + 1.10558I$	$-0.42156 - 3.46269I$
$u = 1.002190 - 0.295542I$ $a = -0.54263 - 1.33698I$ $b = -0.500000 - 0.866025I$	$-1.89061 + 2.95419I$	$-3.93112 - 4.16322I$
$u = 1.002190 - 0.295542I$ $a = -0.88654 + 1.13843I$ $b = -0.500000 + 0.866025I$	$-1.89061 - 1.10558I$	$-0.42156 + 3.46269I$
$u = -0.428243 + 0.664531I$ $a = 0.386545 - 0.272402I$ $b = -0.500000 + 0.866025I$	$1.89061 + 1.10558I$	$5.61650 - 2.84542I$
$u = -0.428243 + 0.664531I$ $a = 0.042635 + 0.470959I$ $b = -0.500000 - 0.866025I$	$1.89061 - 2.95419I$	$7.50338 + 4.33850I$
$u = -0.428243 - 0.664531I$ $a = 0.386545 + 0.272402I$ $b = -0.500000 - 0.866025I$	$1.89061 - 1.10558I$	$5.61650 + 2.84542I$
$u = -0.428243 - 0.664531I$ $a = 0.042635 - 0.470959I$ $b = -0.500000 + 0.866025I$	$1.89061 + 2.95419I$	$7.50338 - 4.33850I$
$u = -1.073950 + 0.558752I$ $a = -1.44307 - 0.25581I$ $b = -0.500000 + 0.866025I$	$7.72290I$	$4.13964 - 9.04329I$
$u = -1.073950 + 0.558752I$ $a = 0.94307 - 1.12183I$ $b = -0.500000 - 0.866025I$	$3.66314I$	$1.09315 - 1.33646I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.073950-0.558752I$		
$a=-1.44307+0.25581I$	$-7.72290I$	$4.13964+9.04329I$
$b=-0.500000-0.866025I$		
$u=-1.073950-0.558752I$		
$a=\ \ 0.94307+1.12183I$	$-3.66314I$	$1.09315+1.33646I$
$b=-0.500000+0.866025I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_4	$((u^2-u+1)^6)(u^{95}+29u^{94}+\cdots-12u-1)$
c_2	$((u^2+u+1)^6)(u^{95}+7u^{94}+\cdots-4u-1)$
c_3, c_9	$u^{12}(u^{95}+u^{94}+\cdots-12288u-4096)$
c_5	$((u^2-u+1)^6)(u^{95}+7u^{94}+\cdots-4u-1)$
c_6, c_8	$((u^6-u^5-u^4+2u^3-u+1)^2)(u^{95}-3u^{94}+\cdots+4216u-1201)$
c_7	$((u^6+u^5-u^4-2u^3+u+1)^2)(u^{95}+3u^{94}+\cdots-2u-1)$
c_{10}	$((u^6-3u^5+5u^4-4u^3+2u^2-u+1)^2)(u^{95}+43u^{94}+\cdots+8u+1)$
c_{11}	$((u^6-u^5-u^4+2u^3-u+1)^2)(u^{95}+3u^{94}+\cdots-2u-1)$
c_{12}	$((u^6-3u^5+5u^4-4u^3+2u^2-u+1)^2)(u^{95}+9u^{94}+\cdots+6u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$((y^2+y+1)^6)(y^{95}+81y^{94}+\cdots-492y-1)$
c_2, c_5	$((y^2+y+1)^6)(y^{95}+29y^{94}+\cdots-12y-1)$
c_3, c_9	$y^{12}(y^{95}-65y^{94}+\cdots+1.84549\times10^8y-1.67772\times10^7)$
c_6, c_8	$(y^6-3y^5+5y^4-4y^3+2y^2-y+1)^2$ $\cdot(y^{95}-83y^{94}+\cdots+13537528y-1442401)$
c_7, c_{11}	$((y^6-3y^5+5y^4-4y^3+2y^2-y+1)^2)(y^{95}-43y^{94}+\cdots+8y-1)$
c_{10}	$((y^6+y^5+5y^4+6y^2+3y+1)^2)(y^{95}+21y^{94}+\cdots-44y-1)$
c_{12}	$((y^6+y^5+5y^4+6y^2+3y+1)^2)(y^{95}+y^{94}+\cdots+76y-1)$