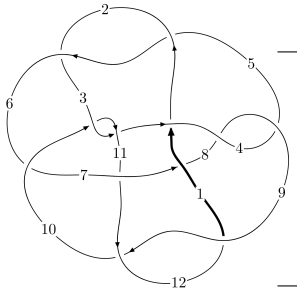
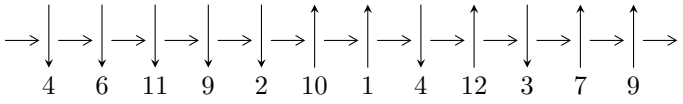
$12n_{0819}$ $(K12n_{0819})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 8.73090 \times 10^{293} u^{77} - 3.56351 \times 10^{294} u^{76} + \cdots + 7.84651 \times 10^{296} b - 4.65322 \times 10^{297}, \\ & - 1.85338 \times 10^{298} u^{77} + 6.45142 \times 10^{298} u^{76} + \cdots + 4.37678 \times 10^{300} a + 6.50906 \times 10^{300}, \\ & u^{78} - 4u^{77} + \cdots - 34268u + 2789 \rangle \\ I_2^u = \langle & 976963699145 u^{24} - 5356482432121 u^{23} + \cdots + 6473712830526 b + 4457277781243, \\ & - 4338891421343 u^{24} + 18419785693814 u^{23} + \cdots + 12947425661052 a - 28103666444157, \\ & u^{25} - 5u^{24} + \cdots + 3u - 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 103 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. $I_1^u = \langle \mathbf{8.73 \times 10^{293} u^{77} - 3.56 \times 10^{294} u^{76} + \cdots + 7.85 \times 10^{296} b - 4.65 \times 10^{297},\ -1.85 \times 10^{298} u^{77} + 6.45 \times 10^{298} u^{76} + \cdots + 4.38 \times 10^{300} a + 6.51 \times 10^{300},\ u^{78} - 4u^{77} + \cdots - 34268u + 2789} \rangle$

(i) Arc colorings

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

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.00423457u^{77} - 0.0147401u^{76} + \cdots + 47.3144u - 1.48718 \\ -0.00111271u^{77} + 0.00454153u^{76} + \cdots - 68.9860u + 5.93031 \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} 0.00437670u^{77} - 0.0163847u^{76} + \cdots + 19.7784u - 1.75814 \\ -0.00313818u^{77} + 0.0102642u^{76} + \cdots + 84.8849u - 8.41119 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.00312185u^{77} - 0.0101986u^{76} + \cdots - 21.6716u + 4.44313 \\ -0.00111271u^{77} + 0.00454153u^{76} + \cdots - 68.9860u + 5.93031 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.00192164u^{77} + 0.0114186u^{76} + \cdots - 261.075u + 19.1357 \\ 0.00123597u^{77} - 0.00425560u^{76} + \cdots - 33.1124u + 3.71756 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.00312185u^{77} - 0.0101986u^{76} + \cdots - 21.6716u + 4.44313 \\ -0.00176996u^{77} + 0.00593289u^{76} + \cdots + 0.741219u - 0.453273 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.000969232u^{77} + 0.000832254u^{76} + \cdots + 160.099u - 12.1813 \\ -0.00313055u^{77} + 0.0146618u^{76} + \cdots - 202.608u + 15.4460 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.00124230u^{77} + 0.00728569u^{76} + \cdots - 177.510u + 17.3463 \\ 0.00191628u^{77} - 0.00793871u^{76} + \cdots + 50.3738u - 5.09448 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.00105957u^{77} + 0.00386563u^{76} + \cdots - 11.5396u + 5.70652 \\ 0.00156637u^{77} - 0.00526645u^{76} + \cdots - 25.0713u + 1.19390 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.00717324u^{77} - 0.0329693u^{76} + \cdots + 172.137u - 9.92485$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{78} - 2u^{77} + \cdots + 5080u - 1808$
c_2, c_5	$u^{78} + 4u^{77} + \cdots - 177548u - 41707$
c_3, c_{10}	$u^{78} - u^{77} + \cdots - 7u + 85$
c_4, c_8	$u^{78} + 4u^{77} + \cdots + 34268u + 2789$
c_6	$u^{78} - 6u^{77} + \cdots - 120616u - 6256$
c_7	$u^{78} - 2u^{77} + \cdots - 35004u - 5048$
c_9, c_{12}	$u^{78} + 4u^{77} + \cdots - 21648u - 1747$
c_{11}	$u^{78} + 2u^{77} + \cdots + 1038u - 463$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{78} + 86y^{77} + \cdots + 33365824y + 3268864$
c_2, c_5	$y^{78} - 54y^{77} + \cdots - 15298685406y + 1739473849$
c_3, c_{10}	$y^{78} - 51y^{77} + \cdots - 50879y + 7225$
c_4, c_8	$y^{78} + 74y^{77} + \cdots + 243548106y + 7778521$
c_6	$y^{78} + 36y^{77} + \cdots - 7231852480y + 39137536$
c_7	$y^{78} - 80y^{77} + \cdots - 1613410640y + 25482304$
c_9, c_{12}	$y^{78} + 44y^{77} + \cdots - 160384742y + 3052009$
c_{11}	$y^{78} + 12y^{77} + \cdots + 305074y + 214369$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.553189 + 0.771248I$ $a = 0.370110 + 1.114770I$ $b = 0.738176 - 0.268544I$	$-6.49552 - 2.40443I$	0
$u = 0.553189 - 0.771248I$ $a = 0.370110 - 1.114770I$ $b = 0.738176 + 0.268544I$	$-6.49552 + 2.40443I$	0
$u = 1.048370 + 0.137410I$ $a = 0.331336 + 0.088614I$ $b = -0.344501 + 0.666535I$	$-2.11440 - 0.16429I$	0
$u = 1.048370 - 0.137410I$ $a = 0.331336 - 0.088614I$ $b = -0.344501 - 0.666535I$	$-2.11440 + 0.16429I$	0
$u = 0.114213 + 0.927534I$ $a = -0.131174 - 0.243934I$ $b = -0.393728 - 0.447997I$	$-2.00138 - 3.96725I$	0
$u = 0.114213 - 0.927534I$ $a = -0.131174 + 0.243934I$ $b = -0.393728 + 0.447997I$	$-2.00138 + 3.96725I$	0
$u = 0.307499 + 1.047930I$ $a = -1.004590 + 0.203212I$ $b = -0.562101 - 0.775845I$	$-6.64128 + 1.36200I$	0
$u = 0.307499 - 1.047930I$ $a = -1.004590 - 0.203212I$ $b = -0.562101 + 0.775845I$	$-6.64128 - 1.36200I$	0
$u = 0.506668 + 1.014800I$ $a = 0.93502 - 1.34181I$ $b = -0.29598 + 1.91126I$	$1.53283 + 0.40725I$	0
$u = 0.506668 - 1.014800I$ $a = 0.93502 + 1.34181I$ $b = -0.29598 - 1.91126I$	$1.53283 - 0.40725I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.055201+0.814919I$ $a=-2.21047+0.40931I$ $b=\ \ 0.410233-0.651215I$	$-8.38983-7.51886I$	0
$u=-0.055201-0.814919I$ $a=-2.21047-0.40931I$ $b=\ \ 0.410233+0.651215I$	$-8.38983+7.51886I$	0
$u=\ \ 0.153693+0.735214I$ $a=\ \ 0.106501+0.447614I$ $b=-1.59181-0.10677I$	$-4.53096+2.37951I$	0
$u=\ \ 0.153693-0.735214I$ $a=\ \ 0.106501-0.447614I$ $b=-1.59181+0.10677I$	$-4.53096-2.37951I$	0
$u=-0.011668+0.741741I$ $a=-0.560820-0.866649I$ $b=\ \ 1.80811+0.17443I$	$-8.63150+7.73689I$	$0.-5.72745I$
$u=-0.011668-0.741741I$ $a=-0.560820+0.866649I$ $b=\ \ 1.80811-0.17443I$	$-8.63150-7.73689I$	$0.+5.72745I$
$u=-0.023067+1.262340I$ $a=-0.701945-1.138780I$ $b=\ \ 0.04894+1.73577I$	$1.29122-1.24492I$	0
$u=-0.023067-1.262340I$ $a=-0.701945+1.138780I$ $b=\ \ 0.04894-1.73577I$	$1.29122+1.24492I$	0
$u=\ \ 0.075082+1.267450I$ $a=\ \ 0.197226-1.233860I$ $b=-0.94859+1.44442I$	$1.42815+2.75123I$	0
$u=\ \ 0.075082-1.267450I$ $a=\ \ 0.197226+1.233860I$ $b=-0.94859-1.44442I$	$1.42815-2.75123I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.077051 + 0.718984I$ $a = 2.13234 + 0.24501I$ $b = -0.173438 + 0.213573I$	$-4.57506 - 3.15137I$	$0. + 4.31486I$
$u = 0.077051 - 0.718984I$ $a = 2.13234 - 0.24501I$ $b = -0.173438 - 0.213573I$	$-4.57506 + 3.15137I$	$0. - 4.31486I$
$u = 0.536366 + 0.406535I$ $a = -0.87103 - 2.28655I$ $b = -0.316632 + 0.555371I$	$-7.45234 - 1.28627I$	$-6.12884 - 2.41040I$
$u = 0.536366 - 0.406535I$ $a = -0.87103 + 2.28655I$ $b = -0.316632 - 0.555371I$	$-7.45234 + 1.28627I$	$-6.12884 + 2.41040I$
$u = -1.305890 + 0.287986I$ $a = 0.634714 + 0.012303I$ $b = 0.072979 - 0.725867I$	$-2.96317 - 3.30928I$	0
$u = -1.305890 - 0.287986I$ $a = 0.634714 - 0.012303I$ $b = 0.072979 + 0.725867I$	$-2.96317 + 3.30928I$	0
$u = 1.281170 + 0.411435I$ $a = -0.103190 + 0.368321I$ $b = 0.257930 + 0.155794I$	$-5.60477 - 1.57442I$	0
$u = 1.281170 - 0.411435I$ $a = -0.103190 - 0.368321I$ $b = 0.257930 - 0.155794I$	$-5.60477 + 1.57442I$	0
$u = -0.009798 + 1.367980I$ $a = 0.376007 + 1.350890I$ $b = 0.28274 - 1.78454I$	$2.81039 - 0.70774I$	0
$u = -0.009798 - 1.367980I$ $a = 0.376007 - 1.350890I$ $b = 0.28274 + 1.78454I$	$2.81039 + 0.70774I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.475180 + 1.284860I$ $a = -0.29910 + 1.40610I$ $b = -0.25565 - 1.85967I$	$2.66302 - 4.36792I$	0
$u = 0.475180 - 1.284860I$ $a = -0.29910 - 1.40610I$ $b = -0.25565 + 1.85967I$	$2.66302 + 4.36792I$	0
$u = 0.03926 + 1.42863I$ $a = 0.197338 + 1.087340I$ $b = 0.340589 - 1.360110I$	$3.02947 - 1.19479I$	0
$u = 0.03926 - 1.42863I$ $a = 0.197338 - 1.087340I$ $b = 0.340589 + 1.360110I$	$3.02947 + 1.19479I$	0
$u = 0.02389 + 1.47698I$ $a = -0.247155 + 0.531188I$ $b = -0.266358 - 1.259730I$	$-1.68490 - 3.66956I$	0
$u = 0.02389 - 1.47698I$ $a = -0.247155 - 0.531188I$ $b = -0.266358 + 1.259730I$	$-1.68490 + 3.66956I$	0
$u = -1.39206 + 0.50023I$ $a = -0.627615 - 0.116524I$ $b = -0.103857 + 0.490501I$	$-7.16752 + 3.44665I$	0
$u = -1.39206 - 0.50023I$ $a = -0.627615 + 0.116524I$ $b = -0.103857 - 0.490501I$	$-7.16752 - 3.44665I$	0
$u = -0.221090 + 0.455313I$ $a = 0.729764 + 0.654361I$ $b = 0.256358 + 0.109918I$	$1.119390 - 0.786078I$	$4.39131 + 2.78793I$
$u = -0.221090 - 0.455313I$ $a = 0.729764 - 0.654361I$ $b = 0.256358 - 0.109918I$	$1.119390 + 0.786078I$	$4.39131 - 2.78793I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.49652+0.07217I$ $a=-0.519087-0.019323I$ $b=\ \ 0.074392+0.704796I$	$-8.08211-9.03884I$	0
$u=-1.49652-0.07217I$ $a=-0.519087+0.019323I$ $b=\ \ 0.074392-0.704796I$	$-8.08211+9.03884I$	0
$u=\ \ 0.34732+1.47622I$ $a=\ \ 0.103642+1.259970I$ $b=-0.61410-1.70543I$	$2.82205-4.87434I$	0
$u=\ \ 0.34732-1.47622I$ $a=\ \ 0.103642-1.259970I$ $b=-0.61410+1.70543I$	$2.82205+4.87434I$	0
$u=\ \ 0.204950+0.421347I$ $a=\ \ 1.036100-0.700476I$ $b=\ \ 1.50993+0.40819I$	$-8.61803-3.17392I$	$-4.16545-1.45630I$
$u=\ \ 0.204950-0.421347I$ $a=\ \ 1.036100+0.700476I$ $b=\ \ 1.50993-0.40819I$	$-8.61803+3.17392I$	$-4.16545+1.45630I$
$u=\ \ 0.29953+1.53190I$ $a=-0.387107-1.030900I$ $b=\ \ 0.85234+1.55687I$	$1.18794-6.61851I$	0
$u=\ \ 0.29953-1.53190I$ $a=-0.387107+1.030900I$ $b=\ \ 0.85234-1.55687I$	$1.18794+6.61851I$	0
$u=-0.16833+1.56106I$ $a=\ \ 0.274182+1.088300I$ $b=-0.14730-1.65952I$	$5.43050-3.25360I$	0
$u=-0.16833-1.56106I$ $a=\ \ 0.274182-1.088300I$ $b=-0.14730+1.65952I$	$5.43050+3.25360I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.17704 + 1.59692I$ $a = -0.176905 - 0.839760I$ $b = -0.263205 + 0.915211I$	$-0.97845 - 4.15453I$	0
$u = 0.17704 - 1.59692I$ $a = -0.176905 + 0.839760I$ $b = -0.263205 - 0.915211I$	$-0.97845 + 4.15453I$	0
$u = -0.29112 + 1.58392I$ $a = -0.152746 - 0.944156I$ $b = -0.01316 + 1.73867I$	$7.27487 + 1.92167I$	0
$u = -0.29112 - 1.58392I$ $a = -0.152746 + 0.944156I$ $b = -0.01316 - 1.73867I$	$7.27487 - 1.92167I$	0
$u = 0.388485$ $a = 0.927393$ $b = -0.631738$	-1.00985	-12.6520
$u = 1.53299 + 0.52551I$ $a = -0.211769 + 0.366617I$ $b = 0.076365 - 0.940501I$	$-6.05906 - 1.96066I$	0
$u = 1.53299 - 0.52551I$ $a = -0.211769 - 0.366617I$ $b = 0.076365 + 0.940501I$	$-6.05906 + 1.96066I$	0
$u = 0.374839$ $a = -2.68128$ $b = 1.00371$	-2.35857	-3.30110
$u = 0.20137 + 1.63065I$ $a = 0.130556 - 0.944222I$ $b = 0.55294 + 1.46514I$	$4.81816 - 4.74145I$	0
$u = 0.20137 - 1.63065I$ $a = 0.130556 + 0.944222I$ $b = 0.55294 - 1.46514I$	$4.81816 + 4.74145I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.293964+0.193189I$ $a=\ \ 2.35944-1.93322I$ $b=-0.116758-0.750759I$	$-1.75040-2.19758I$	$1.64597+5.00211I$
$u=-0.293964-0.193189I$ $a=\ \ 2.35944+1.93322I$ $b=-0.116758+0.750759I$	$-1.75040+2.19758I$	$1.64597-5.00211I$
$u=-0.67229+1.53955I$ $a=\ \ 0.082487+0.856688I$ $b=\ \ 0.46676-1.67544I$	$-3.49260+4.22399I$	0
$u=-0.67229-1.53955I$ $a=\ \ 0.082487-0.856688I$ $b=\ \ 0.46676+1.67544I$	$-3.49260-4.22399I$	0
$u=-0.62154+1.56682I$ $a=-0.091762-1.041160I$ $b=-0.55284+1.78046I$	$1.49105+10.50710I$	0
$u=-0.62154-1.56682I$ $a=-0.091762+1.041160I$ $b=-0.55284-1.78046I$	$1.49105-10.50710I$	0
$u=-0.21186+1.68170I$ $a=-0.291089+0.900756I$ $b=\ \ 0.06045-1.76893I$	$1.11465+9.02133I$	0
$u=-0.21186-1.68170I$ $a=-0.291089-0.900756I$ $b=\ \ 0.06045+1.76893I$	$1.11465-9.02133I$	0
$u=-0.60617+1.62101I$ $a=-0.006642+1.105160I$ $b=\ \ 0.63247-1.78811I$	$-2.8260+16.6173I$	0
$u=-0.60617-1.62101I$ $a=-0.006642-1.105160I$ $b=\ \ 0.63247+1.78811I$	$-2.8260-16.6173I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.77282 + 1.58292I$ $a = 0.159041 - 1.000460I$ $b = 0.31194 + 1.41896I$	$-2.41294 - 6.47356I$	0
$u = 0.77282 - 1.58292I$ $a = 0.159041 + 1.000460I$ $b = 0.31194 - 1.41896I$	$-2.41294 + 6.47356I$	0
$u = 0.25569 + 1.74590I$ $a = -0.087303 + 1.078660I$ $b = -0.56741 - 1.48246I$	$2.38693 - 8.45936I$	0
$u = 0.25569 - 1.74590I$ $a = -0.087303 - 1.078660I$ $b = -0.56741 + 1.48246I$	$2.38693 + 8.45936I$	0
$u = -0.10904 + 1.76638I$ $a = 0.223972 - 0.709148I$ $b = 0.14466 + 1.77376I$	$5.45948 + 1.85005I$	0
$u = -0.10904 - 1.76638I$ $a = 0.223972 + 0.709148I$ $b = 0.14466 - 1.77376I$	$5.45948 - 1.85005I$	0
$u = 0.124598 + 0.178716I$ $a = 3.11035 - 0.22996I$ $b = -0.556865 - 0.502010I$	$-1.74371 - 0.46019I$	$-4.13695 - 0.26951I$
$u = 0.124598 - 0.178716I$ $a = 3.11035 + 0.22996I$ $b = -0.556865 + 0.502010I$	$-1.74371 + 0.46019I$	$-4.13695 + 0.26951I$

II.

$\boldsymbol{I_2^u = \langle 9.77\times10^{11}u^{24}-5.36\times10^{12}u^{23}+\cdots+6.47\times10^{12}b+4.46\times10^{12},\ -4.34\times10^{12}u^{24}+1.84\times10^{13}u^{23}+\cdots+1.29\times10^{13}a-2.81\times10^{13},\ u^{25}-5u^{24}+\cdots+3u-1\rangle}$

(i) Arc colorings

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

$$a_9 = \begin{pmatrix}0\\u\end{pmatrix}$$

$$a_2 = \begin{pmatrix}0.335116u^{24}-1.42266u^{23}+\cdots+5.29501u+2.17060\\-0.150912u^{24}+0.827420u^{23}+\cdots-0.635972u-0.688520\end{pmatrix}$$

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

$$a_6 = \begin{pmatrix}-0.614994u^{24}+2.94621u^{23}+\cdots-7.16614u-0.634781\\u^2-u+1\end{pmatrix}$$

$$a_1 = \begin{pmatrix}0.184204u^{24}-0.595240u^{23}+\cdots+4.65904u+1.48208\\-0.150912u^{24}+0.827420u^{23}+\cdots-0.635972u-0.688520\end{pmatrix}$$

$$a_8 = \begin{pmatrix}u\\u\end{pmatrix}$$

$$a_7 = \begin{pmatrix}0.229860u^{24}-1.44105u^{23}+\cdots+1.04749u-1.64934\\0.128729u^{24}-0.630969u^{23}+\cdots+1.80423u+0.310561\end{pmatrix}$$

$$a_{12} = \begin{pmatrix}0.184204u^{24}-0.595240u^{23}+\cdots+4.65904u+1.48208\\-0.314929u^{24}+1.69908u^{23}+\cdots-1.42911u-0.362741\end{pmatrix}$$

$$a_{10} = \begin{pmatrix}-0.344035u^{24}+2.02980u^{23}+\cdots+0.0575888u+1.32610\\-0.0277911u^{24}+0.128303u^{23}+\cdots-0.167822u-0.0136182\end{pmatrix}$$

$$a_{11} = \begin{pmatrix}0.275453u^{24}-1.26473u^{23}+\cdots+3.47503u+0.585338\\-0.119004u^{24}+0.636924u^{23}+\cdots-0.168916u-0.0515499\end{pmatrix}$$

$$a_3 = \begin{pmatrix}0.210239u^{24}-1.36998u^{23}+\cdots+0.684989u+1.06823\\-0.00238683u^{24}-0.00328565u^{23}+\cdots-0.927415u+0.130104\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes

$$= \frac{5670551455370}{3236856415263}u^{24}-\frac{56154175919473}{6473712830526}u^{23}+\cdots+\frac{134776490182523}{6473712830526}u-\frac{652739685965}{6473712830526}$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{25} - u^{24} + \cdots - 8u - 4$
c_2	$u^{25} + 3u^{24} + \cdots + 21u - 13$
c_3	$u^{25} - 7u^{23} + \cdots + 6u + 1$
c_4	$u^{25} - 5u^{24} + \cdots + 3u - 1$
c_5	$u^{25} - 3u^{24} + \cdots + 21u + 13$
c_6	$u^{25} + u^{24} + \cdots - 12u + 4$
c_7	$u^{25} - u^{24} + \cdots + 8u + 8$
c_8	$u^{25} + 5u^{24} + \cdots + 3u + 1$
c_9	$u^{25} + 3u^{24} + \cdots + 7u + 7$
c_{10}	$u^{25} - 7u^{23} + \cdots + 6u - 1$
c_{11}	$u^{25} - u^{24} + \cdots - 7u - 1$
c_{12}	$u^{25} - 3u^{24} + \cdots + 7u - 7$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{25} + 19y^{24} + \cdots - 64y - 16$
c_2, c_5	$y^{25} - 21y^{24} + \cdots + 2703y - 169$
c_3, c_{10}	$y^{25} - 14y^{24} + \cdots + 52y - 1$
c_4, c_8	$y^{25} + 15y^{24} + \cdots + 27y - 1$
c_6	$y^{25} + 13y^{24} + \cdots - 48y - 16$
c_7	$y^{25} - 15y^{24} + \cdots - 608y - 64$
c_9, c_{12}	$y^{25} + 17y^{24} + \cdots - 525y - 49$
c_{11}	$y^{25} + y^{24} + \cdots + 23y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.741112+0.504146I$ $a=\ 0.116829-0.353061I$ $b=\ 1.218660-0.276562I$	$-9.23157+3.66581I$	$-12.91546-4.91536I$
$u=-0.741112-0.504146I$ $a=\ 0.116829+0.353061I$ $b=\ 1.218660+0.276562I$	$-9.23157-3.66581I$	$-12.91546+4.91536I$
$u=\ 0.829941+0.296486I$ $a=\ 0.918807+0.518041I$ $b=-0.194389+0.648589I$	$-2.47394+1.82700I$	$-7.17952-1.07328I$
$u=\ 0.829941-0.296486I$ $a=\ 0.918807-0.518041I$ $b=-0.194389-0.648589I$	$-2.47394-1.82700I$	$-7.17952+1.07328I$
$u=\ 0.970904+0.587520I$ $a=\ 0.376179+1.206820I$ $b=\ 0.224159-0.206009I$	$-7.99692-1.72986I$	$-16.4749+4.4091I$
$u=\ 0.970904-0.587520I$ $a=\ 0.376179-1.206820I$ $b=\ 0.224159+0.206009I$	$-7.99692+1.72986I$	$-16.4749-4.4091I$
$u=\ 0.078121+1.150140I$ $a=\ 0.10712-1.54071I$ $b=-0.60157+1.77907I$	$2.50588+1.87323I$	$-1.02310-2.28296I$
$u=\ 0.078121-1.150140I$ $a=\ 0.10712+1.54071I$ $b=-0.60157-1.77907I$	$2.50588-1.87323I$	$-1.02310+2.28296I$
$u=\ 0.142180+0.821206I$ $a=-1.17694-0.83275I$ $b=-0.601242+0.453878I$	$-5.60658-2.15689I$	$-2.19337+1.94259I$
$u=\ 0.142180-0.821206I$ $a=-1.17694+0.83275I$ $b=-0.601242-0.453878I$	$-5.60658+2.15689I$	$-2.19337-1.94259I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.096098+1.258110I$ $a=\ \ 0.65267+1.46440I$ $b=-0.00381-1.87685I$	$3.12298-1.71886I$	$0.16611+4.53358I$
$u=-0.096098-1.258110I$ $a=\ \ 0.65267-1.46440I$ $b=-0.00381+1.87685I$	$3.12298+1.71886I$	$0.16611-4.53358I$
$u=-0.647184+0.050857I$ $a=-0.74957+1.59582I$ $b=\ \ 1.134710+0.306453I$	$-10.19640+7.70200I$	$-10.96604-4.89541I$
$u=-0.647184-0.050857I$ $a=-0.74957-1.59582I$ $b=\ \ 1.134710-0.306453I$	$-10.19640-7.70200I$	$-10.96604+4.89541I$
$u=\ \ 1.36240+0.47131I$ $a=-0.245222+0.228355I$ $b=\ \ 0.043781-0.599815I$	$-4.97268-1.46866I$	$-1.44139+0.68762I$
$u=\ \ 1.36240-0.47131I$ $a=-0.245222-0.228355I$ $b=\ \ 0.043781+0.599815I$	$-4.97268+1.46866I$	$-1.44139-0.68762I$
$u=-0.370655+0.327033I$ $a=-1.36917+1.30864I$ $b=-1.032240+0.303743I$	$-5.69473-2.61851I$	$-8.99601+3.18795I$
$u=-0.370655-0.327033I$ $a=-1.36917-1.30864I$ $b=-1.032240-0.303743I$	$-5.69473+2.61851I$	$-8.99601-3.18795I$
$u=\ \ 0.26880+1.49571I$ $a=\ \ 0.197658+1.156570I$ $b=-0.78824-1.61341I$	$2.47325-5.67148I$	$-3.70840+7.21556I$
$u=\ \ 0.26880-1.49571I$ $a=\ \ 0.197658-1.156570I$ $b=-0.78824+1.61341I$	$2.47325+5.67148I$	$-3.70840-7.21556I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.16498 + 1.68985I$ $a = 0.151027 + 0.785264I$ $b = 0.13998 - 1.73711I$	$5.73609 - 1.54923I$	$1.91065 - 4.75162I$
$u = 0.16498 - 1.68985I$ $a = 0.151027 - 0.785264I$ $b = 0.13998 + 1.73711I$	$5.73609 + 1.54923I$	$1.91065 + 4.75162I$
$u = 0.43658 + 1.65754I$ $a = -0.084607 - 0.845179I$ $b = 0.375139 + 1.295270I$	$-0.34144 - 5.76799I$	$-5.64984 + 6.08143I$
$u = 0.43658 - 1.65754I$ $a = -0.084607 + 0.845179I$ $b = 0.375139 - 1.295270I$	$-0.34144 + 5.76799I$	$-5.64984 - 6.08143I$
$u = 0.202283$ $a = 3.21043$ $b = -0.829879$	-0.445338	3.94260

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{25}-u^{24}+\cdots-8u-4)(u^{78}-2u^{77}+\cdots+5080u-1808)$
c_2	$(u^{25}+3u^{24}+\cdots+21u-13)(u^{78}+4u^{77}+\cdots-177548u-41707)$
c_3	$(u^{25}-7u^{23}+\cdots+6u+1)(u^{78}-u^{77}+\cdots-7u+85)$
c_4	$(u^{25}-5u^{24}+\cdots+3u-1)(u^{78}+4u^{77}+\cdots+34268u+2789)$
c_5	$(u^{25}-3u^{24}+\cdots+21u+13)(u^{78}+4u^{77}+\cdots-177548u-41707)$
c_6	$(u^{25}+u^{24}+\cdots-12u+4)(u^{78}-6u^{77}+\cdots-120616u-6256)$
c_7	$(u^{25}-u^{24}+\cdots+8u+8)(u^{78}-2u^{77}+\cdots-35004u-5048)$
c_8	$(u^{25}+5u^{24}+\cdots+3u+1)(u^{78}+4u^{77}+\cdots+34268u+2789)$
c_9	$(u^{25}+3u^{24}+\cdots+7u+7)(u^{78}+4u^{77}+\cdots-21648u-1747)$
c_{10}	$(u^{25}-7u^{23}+\cdots+6u-1)(u^{78}-u^{77}+\cdots-7u+85)$
c_{11}	$(u^{25}-u^{24}+\cdots-7u-1)(u^{78}+2u^{77}+\cdots+1038u-463)$
c_{12}	$(u^{25}-3u^{24}+\cdots+7u-7)(u^{78}+4u^{77}+\cdots-21648u-1747)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{25}+19y^{24}+\cdots-64y-16)$ $\cdot(y^{78}+86y^{77}+\cdots+33365824y+3268864)$
c_2, c_5	$(y^{25}-21y^{24}+\cdots+2703y-169)$ $\cdot(y^{78}-54y^{77}+\cdots-15298685406y+1739473849)$
c_3, c_{10}	$(y^{25}-14y^{24}+\cdots+52y-1)(y^{78}-51y^{77}+\cdots-50879y+7225)$
c_4, c_8	$(y^{25}+15y^{24}+\cdots+27y-1)$ $\cdot(y^{78}+74y^{77}+\cdots+243548106y+7778521)$
c_6	$(y^{25}+13y^{24}+\cdots-48y-16)$ $\cdot(y^{78}+36y^{77}+\cdots-7231852480y+39137536)$
c_7	$(y^{25}-15y^{24}+\cdots-608y-64)$ $\cdot(y^{78}-80y^{77}+\cdots-1613410640y+25482304)$
c_9, c_{12}	$(y^{25}+17y^{24}+\cdots-525y-49)$ $\cdot(y^{78}+44y^{77}+\cdots-160384742y+3052009)$
c_{11}	$(y^{25}+y^{24}+\cdots+23y-1)(y^{78}+12y^{77}+\cdots+305074y+214369)$