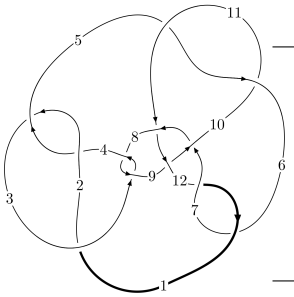
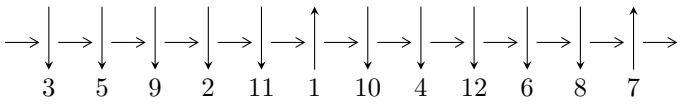
$12a_{0162}$ $(K12a_{0162})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u &= \langle 1.29523 \times 10^{304} u^{152} - 8.92919 \times 10^{305} u^{151} + \cdots + 1.94694 \times 10^{303} b + 3.53899 \times 10^{307}, \\
&\quad 5.00929 \times 10^{304} u^{152} + 5.88603 \times 10^{305} u^{151} + \cdots + 2.72571 \times 10^{302} a + 2.91301 \times 10^{305}, \\
&\quad u^{153} + 14u^{152} + \cdots - 762u - 49 \rangle \\
I_2^u &= \langle -7u^{23} - 26u^{22} + \cdots + b - 8,\ -6u^{23} - 18u^{22} + \cdots + a - 4,\ u^{24} + 4u^{23} + \cdots + 3u + 1 \rangle \\
I_3^u &= \langle a^8 + 2a^6 + a^5 + 4a^4 + 3a^3 + 5a^2 + 7b - 9a + 6,\ a^9 - a^8 + 2a^7 - a^6 + 3a^5 - a^4 + 2a^3 + a + 1,\ u - 1 \rangle
\end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 186 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. $\boldsymbol{I_1^u = \langle 1.30 \times 10^{304} u^{152} - 8.93 \times 10^{305} u^{151} + \cdots + 1.95 \times 10^{303} b + 3.54 \times 10^{307},\ 5.01 \times 10^{304} u^{152} + 5.89 \times 10^{305} u^{151} + \cdots + 2.73 \times 10^{302} a + 2.91 \times 10^{305},\ u^{153} + 14 u^{152} + \cdots - 762 u - 49 \rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

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

$$a_{11} = \begin{pmatrix} -183.779u^{152} - 2159.45u^{151} + \cdots - 7908.06u - 1068.72 \\ -6.65267u^{152} + 458.628u^{151} + \cdots - 255952.u - 18177.2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 45.7365u^{152} + 309.760u^{151} + \cdots + 116257.u + 8455.45 \\ 616.534u^{152} + 7545.94u^{151} + \cdots - 118442.u - 6864.99 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^2 + 1 \\ -u^4 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -446.080u^{152} - 6191.45u^{151} + \cdots + 446245.u + 30706.7 \\ -74.8796u^{152} - 1734.74u^{151} + \cdots + 411019.u + 29036.3 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 504.654u^{152} + 6286.66u^{151} + \cdots - 160897.u - 10329.5 \\ 1128.83u^{152} + 14406.8u^{151} + \cdots - 512631.u - 33700.1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -220.118u^{152} - 2878.28u^{151} + \cdots + 137443.u + 9289.07 \\ -350.744u^{152} - 4657.56u^{151} + \cdots + 250754.u + 16977.6 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -296.996u^{152} - 3730.32u^{151} + \cdots + 106135.u + 6864.24 \\ -427.622u^{152} - 5509.60u^{151} + \cdots + 219446.u + 14552.8 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -632.625u^{152} - 8218.23u^{151} + \cdots + 354761.u + 23565.6 \\ -617.458u^{152} - 8034.34u^{151} + \cdots + 357702.u + 23903.3 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -424.076u^{152} - 5406.81u^{151} + \cdots + 203917.u + 13552.6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{153} + 76u^{152} + \cdots + 169142u + 2401$
c_2, c_4	$u^{153} - 14u^{152} + \cdots - 762u + 49$
c_3, c_8	$u^{153} - u^{152} + \cdots - 100352u + 25088$
c_5, c_{10}	$u^{153} + 2u^{152} + \cdots + 1528u + 649$
c_6, c_{12}	$u^{153} + 3u^{152} + \cdots + 50071u + 3559$
c_7	$u^{153} - 10u^{152} + \cdots + 14u + 17$
c_9	$u^{153} - 20u^{152} + \cdots + 18213u + 14027$
c_{11}	$u^{153} - u^{152} + \cdots + 118105u + 15199$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{153} + 16y^{152} + \cdots + 4705654178y - 5764801$
c_2, c_4	$y^{153} - 76y^{152} + \cdots + 169142y - 2401$
c_3, c_8	$y^{153} + 69y^{152} + \cdots - 16338911232y - 629407744$
c_5, c_{10}	$y^{153} + 96y^{152} + \cdots - 17206606y - 421201$
c_6, c_{12}	$y^{153} + 99y^{152} + \cdots - 548780483y - 12666481$
c_7	$y^{153} - 8y^{152} + \cdots - 9698y - 289$
c_9	$y^{153} - 40y^{152} + \cdots + 18060550885y - 196756729$
c_{11}	$y^{153} + 3y^{152} + \cdots - 3235076783y - 231009601$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.574594+0.816890I$ $a=\ 1.43644-0.31596I$ $b=\ 0.611437-0.397016I$	$5.13882+1.56779I$	0
$u=-0.574594-0.816890I$ $a=\ 1.43644+0.31596I$ $b=\ 0.611437+0.397016I$	$5.13882-1.56779I$	0
$u=\ 0.958484+0.278909I$ $a=\ 0.38766+1.64685I$ $b=\ 2.38666+0.30401I$	$1.129760-0.814632I$	0
$u=\ 0.958484-0.278909I$ $a=\ 0.38766-1.64685I$ $b=\ 2.38666-0.30401I$	$1.129760+0.814632I$	0
$u=-0.895884+0.430701I$ $a=-0.551403-0.393529I$ $b=-1.57433+0.45310I$	$-2.14959+1.73247I$	0
$u=-0.895884-0.430701I$ $a=-0.551403+0.393529I$ $b=-1.57433-0.45310I$	$-2.14959-1.73247I$	0
$u=-0.985972+0.213998I$ $a=\ 0.539482+1.196150I$ $b=\ 1.34686+1.00600I$	$-5.33229-6.54252I$	0
$u=-0.985972-0.213998I$ $a=\ 0.539482-1.196150I$ $b=\ 1.34686-1.00600I$	$-5.33229+6.54252I$	0
$u=-0.308239+0.976529I$ $a=\ 1.08835-1.00361I$ $b=\ 0.089777+0.592784I$	$2.3368-14.2623I$	0
$u=-0.308239-0.976529I$ $a=\ 1.08835+1.00361I$ $b=\ 0.089777-0.592784I$	$2.3368+14.2623I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.445994+0.851018I$ $a=-0.73156+1.41683I$ $b=\ \ 0.154985-0.466806I$	$4.36623-5.28259I$	0
$u=-0.445994-0.851018I$ $a=-0.73156-1.41683I$ $b=\ \ 0.154985+0.466806I$	$4.36623+5.28259I$	0
$u=\ \ 0.950665+0.433419I$ $a=\ \ 0.438661-0.209931I$ $b=\ \ 1.48917-0.57495I$	$-1.93090-3.15315I$	0
$u=\ \ 0.950665-0.433419I$ $a=\ \ 0.438661+0.209931I$ $b=\ \ 1.48917+0.57495I$	$-1.93090+3.15315I$	0
$u=\ \ 0.920630+0.495323I$ $a=\ \ 1.205590+0.584838I$ $b=\ \ 2.53864-0.21529I$	$-0.38761-5.07239I$	0
$u=\ \ 0.920630-0.495323I$ $a=\ \ 1.205590-0.584838I$ $b=\ \ 2.53864+0.21529I$	$-0.38761+5.07239I$	0
$u=-0.322725+0.895754I$ $a=-1.038100+0.891150I$ $b=\ \ 0.152242-0.790387I$	$5.83587-7.72355I$	0
$u=-0.322725-0.895754I$ $a=-1.038100-0.891150I$ $b=\ \ 0.152242+0.790387I$	$5.83587+7.72355I$	0
$u=\ \ 0.418416+0.967520I$ $a=-0.891483-0.133621I$ $b=-0.399415+0.176695I$	$-1.16480-4.56244I$	0
$u=\ \ 0.418416-0.967520I$ $a=-0.891483+0.133621I$ $b=-0.399415-0.176695I$	$-1.16480+4.56244I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.910466+0.237134I$ $a=\ \ 0.618889+1.147390I$ $b=\ \ 1.188320+0.395835I$	$-5.78318+2.01516I$	0
$u=-0.910466-0.237134I$ $a=\ \ 0.618889-1.147390I$ $b=\ \ 1.188320-0.395835I$	$-5.78318-2.01516I$	0
$u=\ \ 0.990973+0.383908I$ $a=-0.736554-1.003330I$ $b=-2.52442-1.13711I$	$0.54761-1.44300I$	0
$u=\ \ 0.990973-0.383908I$ $a=-0.736554+1.003330I$ $b=-2.52442+1.13711I$	$0.54761+1.44300I$	0
$u=-0.686108+0.634402I$ $a=-1.185060-0.533186I$ $b=-0.873123+0.960621I$	$0.67913+5.24901I$	0
$u=-0.686108-0.634402I$ $a=-1.185060+0.533186I$ $b=-0.873123-0.960621I$	$0.67913-5.24901I$	0
$u=\ \ 0.903188+0.238495I$ $a=-0.055343-0.756165I$ $b=-4.52323+0.01015I$	$-2.69283+2.12824I$	0
$u=\ \ 0.903188-0.238495I$ $a=-0.055343+0.756165I$ $b=-4.52323-0.01015I$	$-2.69283-2.12824I$	0
$u=-1.003950+0.371462I$ $a=-0.034393-0.897261I$ $b=-1.26131-1.05136I$	$0.011275-0.515252I$	0
$u=-1.003950-0.371462I$ $a=-0.034393+0.897261I$ $b=-1.26131+1.05136I$	$0.011275+0.515252I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.462720+0.973186I$ $a=-0.649975+0.436879I$ $b=-0.263586-0.603612I$	$3.60458-2.74950I$	0
$u=-0.462720-0.973186I$ $a=-0.649975-0.436879I$ $b=-0.263586+0.603612I$	$3.60458+2.74950I$	0
$u=0.835570+0.687935I$ $a=0.349315+0.614531I$ $b=1.242750+0.025699I$	$-1.88517-2.34362I$	0
$u=0.835570-0.687935I$ $a=0.349315-0.614531I$ $b=1.242750-0.025699I$	$-1.88517+2.34362I$	0
$u=1.016760+0.370999I$ $a=0.645130+0.786096I$ $b=3.36215-1.03847I$	$-3.53913-4.44208I$	0
$u=1.016760-0.370999I$ $a=0.645130-0.786096I$ $b=3.36215+1.03847I$	$-3.53913+4.44208I$	0
$u=-0.756138+0.780095I$ $a=1.064490-0.701322I$ $b=1.207020-0.635288I$	$8.53653+4.24665I$	0
$u=-0.756138-0.780095I$ $a=1.064490+0.701322I$ $b=1.207020+0.635288I$	$8.53653-4.24665I$	0
$u=-0.939531+0.552017I$ $a=-0.582454-1.069380I$ $b=-2.08714-0.73277I$	$-0.071240-0.591588I$	0
$u=-0.939531-0.552017I$ $a=-0.582454+1.069380I$ $b=-2.08714+0.73277I$	$-0.071240+0.591588I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.475132 + 0.764717I$ $a = 0.83450 + 1.24262I$ $b = 0.544227 - 0.336753I$	$-0.70902 + 7.98208I$	0
$u = 0.475132 - 0.764717I$ $a = 0.83450 - 1.24262I$ $b = 0.544227 + 0.336753I$	$-0.70902 - 7.98208I$	0
$u = -0.291130 + 1.063480I$ $a = 1.008020 - 0.522408I$ $b = 0.396508 + 0.228257I$	$2.80976 - 4.80966I$	0
$u = -0.291130 - 1.063480I$ $a = 1.008020 + 0.522408I$ $b = 0.396508 - 0.228257I$	$2.80976 + 4.80966I$	0
$u = -0.299280 + 0.841358I$ $a = -0.63160 - 1.34503I$ $b = -0.542959 + 0.482245I$	$-1.60886 - 7.51304I$	0
$u = -0.299280 - 0.841358I$ $a = -0.63160 + 1.34503I$ $b = -0.542959 - 0.482245I$	$-1.60886 + 7.51304I$	0
$u = -1.041590 + 0.376605I$ $a = 1.156170 - 0.184868I$ $b = 2.13045 - 0.50677I$	$-6.76823 + 0.15150I$	0
$u = -1.041590 - 0.376605I$ $a = 1.156170 + 0.184868I$ $b = 2.13045 + 0.50677I$	$-6.76823 - 0.15150I$	0
$u = 0.752593 + 0.475568I$ $a = -0.13687 - 1.44830I$ $b = -0.982498 - 0.298007I$	$0.157068 + 1.043870I$	0
$u = 0.752593 - 0.475568I$ $a = -0.13687 + 1.44830I$ $b = -0.982498 + 0.298007I$	$0.157068 - 1.043870I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.086180 + 0.249085I$ $a = -0.209147 + 0.943972I$ $b = -1.187340 - 0.203491I$	$-3.84037 + 2.35778I$	0
$u = 1.086180 - 0.249085I$ $a = -0.209147 - 0.943972I$ $b = -1.187340 + 0.203491I$	$-3.84037 - 2.35778I$	0
$u = -0.547399 + 0.690954I$ $a = 0.807072 + 0.396069I$ $b = 0.708380 - 0.436182I$	$3.19945 + 0.72226I$	0
$u = -0.547399 - 0.690954I$ $a = 0.807072 - 0.396069I$ $b = 0.708380 + 0.436182I$	$3.19945 - 0.72226I$	0
$u = -0.421737 + 0.773562I$ $a = 0.441743 + 0.638691I$ $b = 0.338898 - 0.840790I$	$2.45307 - 3.31889I$	0
$u = -0.421737 - 0.773562I$ $a = 0.441743 - 0.638691I$ $b = 0.338898 + 0.840790I$	$2.45307 + 3.31889I$	0
$u = -0.799180 + 0.340969I$ $a = -0.448563 + 0.709569I$ $b = -0.320889 + 1.267110I$	$0.76492 + 3.31721I$	0
$u = -0.799180 - 0.340969I$ $a = -0.448563 - 0.709569I$ $b = -0.320889 - 1.267110I$	$0.76492 - 3.31721I$	0
$u = 0.857796 + 0.098270I$ $a = -0.665279 - 0.516870I$ $b = 0.12954 - 2.58752I$	$-2.79806 - 3.16139I$	0
$u = 0.857796 - 0.098270I$ $a = -0.665279 + 0.516870I$ $b = 0.12954 + 2.58752I$	$-2.79806 + 3.16139I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.880694+0.741742I$ $a=-0.677390+1.004890I$ $b=-0.475986+0.314668I$	$8.17021+1.41350I$	0
$u=-0.880694-0.741742I$ $a=-0.677390-1.004890I$ $b=-0.475986-0.314668I$	$8.17021-1.41350I$	0
$u=1.141200+0.200987I$ $a=-0.020466-1.001250I$ $b=-0.29566-2.51930I$	$0.059344-0.653379I$	0
$u=1.141200-0.200987I$ $a=-0.020466+1.001250I$ $b=-0.29566+2.51930I$	$0.059344+0.653379I$	0
$u=-0.415285+0.729352I$ $a=1.21677-1.36665I$ $b=-0.363475+0.196159I$	$4.66993-1.60864I$	0
$u=-0.415285-0.729352I$ $a=1.21677+1.36665I$ $b=-0.363475-0.196159I$	$4.66993+1.60864I$	0
$u=-0.513574+0.661509I$ $a=0.854458-0.718443I$ $b=0.264014+1.180200I$	$1.15055+2.63661I$	0
$u=-0.513574-0.661509I$ $a=0.854458+0.718443I$ $b=0.264014-1.180200I$	$1.15055-2.63661I$	0
$u=-1.128740+0.303775I$ $a=0.718205-0.479306I$ $b=1.17724-0.86002I$	$-6.10563+7.70875I$	0
$u=-1.128740-0.303775I$ $a=0.718205+0.479306I$ $b=1.17724+0.86002I$	$-6.10563-7.70875I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.473091+0.682038I$ $a=-1.92664+0.94089I$ $b=-0.707865+0.663983I$	$5.01099-0.58946I$	0
$u=-0.473091-0.682038I$ $a=-1.92664-0.94089I$ $b=-0.707865-0.663983I$	$5.01099+0.58946I$	0
$u=-1.053300+0.514235I$ $a=-0.094594-1.058760I$ $b=-1.47704-0.34370I$	$-2.51484+2.05166I$	0
$u=-1.053300-0.514235I$ $a=-0.094594+1.058760I$ $b=-1.47704+0.34370I$	$-2.51484-2.05166I$	0
$u=-1.022370+0.574994I$ $a=\ \ 0.306223+0.756673I$ $b=\ \ 1.176480+0.613540I$	$1.78661+4.16402I$	0
$u=-1.022370-0.574994I$ $a=\ \ 0.306223-0.756673I$ $b=\ \ 1.176480-0.613540I$	$1.78661-4.16402I$	0
$u=\ \ 1.052340+0.530022I$ $a=\ \ 0.759606+0.722009I$ $b=\ \ 2.62643+1.01096I$	$1.21069-6.89643I$	0
$u=\ \ 1.052340-0.530022I$ $a=\ \ 0.759606-0.722009I$ $b=\ \ 2.62643-1.01096I$	$1.21069+6.89643I$	0
$u=\ \ 1.074240+0.485277I$ $a=-0.864128+0.597591I$ $b=-1.51424+0.86371I$	$-5.98888-6.70269I$	0
$u=\ \ 1.074240-0.485277I$ $a=-0.864128-0.597591I$ $b=-1.51424-0.86371I$	$-5.98888+6.70269I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.380909+0.726311I$ $a=-1.073540+0.909998I$ $b=-1.047390-0.527334I$	$0.49834-4.72614I$	0
$u=-0.380909-0.726311I$ $a=-1.073540-0.909998I$ $b=-1.047390+0.527334I$	$0.49834+4.72614I$	0
$u=-1.034590+0.568304I$ $a=-0.512156+0.536550I$ $b=-2.40744+0.91946I$	$-0.38974+2.15739I$	0
$u=-1.034590-0.568304I$ $a=-0.512156-0.536550I$ $b=-2.40744-0.91946I$	$-0.38974-2.15739I$	0
$u=1.175560+0.134803I$ $a=-0.399314+0.105905I$ $b=-1.99799-0.23490I$	$-2.73096+1.04396I$	0
$u=1.175560-0.134803I$ $a=-0.399314-0.105905I$ $b=-1.99799+0.23490I$	$-2.73096-1.04396I$	0
$u=-1.060810+0.573324I$ $a=0.59956-1.45513I$ $b=0.58157-1.65500I$	$3.27382+5.45616I$	0
$u=-1.060810-0.573324I$ $a=0.59956+1.45513I$ $b=0.58157+1.65500I$	$3.27382-5.45616I$	0
$u=1.224400+0.068741I$ $a=-0.532926+0.902798I$ $b=-1.92312+1.84736I$	$-1.47879+2.88577I$	0
$u=1.224400-0.068741I$ $a=-0.532926-0.902798I$ $b=-1.92312-1.84736I$	$-1.47879-2.88577I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.863443+0.872751I$ $a=-0.959659+0.533981I$ $b=-0.949387+0.408983I$	$6.11189+9.64087I$	0
$u=-0.863443-0.872751I$ $a=-0.959659-0.533981I$ $b=-0.949387-0.408983I$	$6.11189-9.64087I$	0
$u=0.739678+0.219151I$ $a=0.400872-0.401997I$ $b=-0.135479-0.086416I$	$-0.941917-0.128738I$	0
$u=0.739678-0.219151I$ $a=0.400872+0.401997I$ $b=-0.135479+0.086416I$	$-0.941917+0.128738I$	0
$u=-1.035830+0.669437I$ $a=-0.331350+1.132300I$ $b=-0.187671+1.352810I$	$3.75333+3.98207I$	0
$u=-1.035830-0.669437I$ $a=-0.331350-1.132300I$ $b=-0.187671-1.352810I$	$3.75333-3.98207I$	0
$u=-1.089530+0.585328I$ $a=-0.974000+0.715575I$ $b=-2.17476+1.70665I$	$2.69237+6.63075I$	0
$u=-1.089530-0.585328I$ $a=-0.974000-0.715575I$ $b=-2.17476-1.70665I$	$2.69237-6.63075I$	0
$u=-0.837975+0.909716I$ $a=0.587194-0.809108I$ $b=0.504659-0.451647I$	$6.21066-3.22971I$	0
$u=-0.837975-0.909716I$ $a=0.587194+0.809108I$ $b=0.504659+0.451647I$	$6.21066+3.22971I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.099158+0.756498I$ $a=\ \ 0.592396+0.050813I$ $b=-0.458333-0.104453I$	$-1.64798-2.66834I$	0
$u=-0.099158-0.756498I$ $a=\ \ 0.592396-0.050813I$ $b=-0.458333+0.104453I$	$-1.64798+2.66834I$	0
$u=\ \ 1.083140+0.603801I$ $a=-0.966437-0.669674I$ $b=-2.47668-0.63380I$	$-2.53615-13.16840I$	0
$u=\ \ 1.083140-0.603801I$ $a=-0.966437+0.669674I$ $b=-2.47668+0.63380I$	$-2.53615+13.16840I$	0
$u=-1.104090+0.571992I$ $a=\ \ 0.689921-0.744783I$ $b=\ \ 2.26823-0.25739I$	$-1.62186+9.68707I$	0
$u=-1.104090-0.571992I$ $a=\ \ 0.689921+0.744783I$ $b=\ \ 2.26823+0.25739I$	$-1.62186-9.68707I$	0
$u=-1.093210+0.599223I$ $a=\ \ 0.377768+0.440427I$ $b=\ \ 1.91811+0.21693I$	$0.47061+8.49310I$	0
$u=-1.093210-0.599223I$ $a=\ \ 0.377768-0.440427I$ $b=\ \ 1.91811-0.21693I$	$0.47061-8.49310I$	0
$u=\ \ 1.181270+0.402814I$ $a=-0.338281-0.206291I$ $b=-0.731939-1.066440I$	$-5.37187-1.31466I$	0
$u=\ \ 1.181270-0.402814I$ $a=-0.338281+0.206291I$ $b=-0.731939+1.066440I$	$-5.37187+1.31466I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.193610 + 0.397425I$ $a = 0.049032 - 0.338911I$ $b = 0.31645 - 1.38718I$	$-5.39360 - 1.42120I$	0
$u = 1.193610 - 0.397425I$ $a = 0.049032 + 0.338911I$ $b = 0.31645 + 1.38718I$	$-5.39360 + 1.42120I$	0
$u = -0.143355 + 0.717544I$ $a = 0.544841 - 0.795646I$ $b = -0.615379 + 0.090988I$	$-1.61580 - 2.44952I$	0
$u = -0.143355 - 0.717544I$ $a = 0.544841 + 0.795646I$ $b = -0.615379 - 0.090988I$	$-1.61580 + 2.44952I$	0
$u = 1.243180 + 0.255001I$ $a = 0.908613 + 0.036004I$ $b = 2.70401 - 0.44908I$	$-6.54190 + 4.09896I$	0
$u = 1.243180 - 0.255001I$ $a = 0.908613 - 0.036004I$ $b = 2.70401 + 0.44908I$	$-6.54190 - 4.09896I$	0
$u = -1.163740 + 0.522058I$ $a = -0.577269 - 0.000165I$ $b = -1.34147 + 0.78759I$	$-4.47893 + 7.12118I$	0
$u = -1.163740 - 0.522058I$ $a = -0.577269 + 0.000165I$ $b = -1.34147 - 0.78759I$	$-4.47893 - 7.12118I$	0
$u = -1.182340 + 0.490261I$ $a = -0.088343 + 0.277555I$ $b = 0.056302 + 1.177490I$	$-4.78165 + 7.26278I$	0
$u = -1.182340 - 0.490261I$ $a = -0.088343 - 0.277555I$ $b = 0.056302 - 1.177490I$	$-4.78165 - 7.26278I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.114330+0.637212I$ $a=\ \ 1.141340-0.448009I$ $b=\ \ 2.81103-1.10389I$	$2.35547+10.80480I$	0
$u=-1.114330-0.637212I$ $a=\ \ 1.141340+0.448009I$ $b=\ \ 2.81103+1.10389I$	$2.35547-10.80480I$	0
$u=\ \ 0.453306+0.551100I$ $a=-1.02786-1.33674I$ $b=-0.366857+0.794960I$	$2.95829+2.47842I$	0
$u=\ \ 0.453306-0.551100I$ $a=-1.02786+1.33674I$ $b=-0.366857-0.794960I$	$2.95829-2.47842I$	0
$u=\ \ 1.061580+0.729490I$ $a=-0.647723-0.556979I$ $b=-1.367820-0.089761I$	$-2.44919-3.44783I$	0
$u=\ \ 1.061580-0.729490I$ $a=-0.647723+0.556979I$ $b=-1.367820+0.089761I$	$-2.44919+3.44783I$	0
$u=\ \ 1.278810+0.211421I$ $a=-0.133232+0.909955I$ $b=-1.43070+1.65004I$	$0.46000+4.24652I$	0
$u=\ \ 1.278810-0.211421I$ $a=-0.133232-0.909955I$ $b=-1.43070-1.65004I$	$0.46000-4.24652I$	0
$u=-1.162650+0.587085I$ $a=-0.895914-0.642965I$ $b=-2.32771-0.50967I$	$-4.17318+12.79720I$	0
$u=-1.162650-0.587085I$ $a=-0.895914+0.642965I$ $b=-2.32771+0.50967I$	$-4.17318-12.79720I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.175180+0.608421I$ $a=\ \ 0.765208-0.611140I$ $b=\ \ 2.49847-1.55285I$	$3.26481+13.23710I$	0
$u=-1.175180-0.608421I$ $a=\ \ 0.765208+0.611140I$ $b=\ \ 2.49847+1.55285I$	$3.26481-13.23710I$	0
$u=-1.145890+0.676573I$ $a=\ \ 0.473936-0.365803I$ $b=\ \ 1.81755-0.55926I$	$1.49037+8.72661I$	0
$u=-1.145890-0.676573I$ $a=\ \ 0.473936+0.365803I$ $b=\ \ 1.81755+0.55926I$	$1.49037-8.72661I$	0
$u=-0.425630+0.481298I$ $a=-1.71107+0.19286I$ $b=-1.03407+1.24694I$	$-0.70464+2.18373I$	0
$u=-0.425630-0.481298I$ $a=-1.71107-0.19286I$ $b=-1.03407-1.24694I$	$-0.70464-2.18373I$	0
$u=-1.210940+0.629035I$ $a=-0.928344+0.663982I$ $b=-2.61075+1.33342I$	$-0.4238+20.0703I$	0
$u=-1.210940-0.629035I$ $a=-0.928344-0.663982I$ $b=-2.61075-1.33342I$	$-0.4238-20.0703I$	0
$u=\ \ 1.366400+0.224104I$ $a=\ \ 0.295360-0.972105I$ $b=\ \ 1.31293-1.54767I$	$-3.40243+10.22740I$	0
$u=\ \ 1.366400-0.224104I$ $a=\ \ 0.295360+0.972105I$ $b=\ \ 1.31293+1.54767I$	$-3.40243-10.22740I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.232330+0.644358I$ $a=-0.668575+0.689519I$ $b=-1.77944+0.95139I$	$-0.09625+10.86920I$	0
$u=-1.232330-0.644358I$ $a=-0.668575-0.689519I$ $b=-1.77944-0.95139I$	$-0.09625-10.86920I$	0
$u=0.229915+0.531966I$ $a=-1.06334+1.25276I$ $b=-0.150349+0.347476I$	$-3.73555+2.61983I$	$-8.00000+0.I$
$u=0.229915-0.531966I$ $a=-1.06334-1.25276I$ $b=-0.150349-0.347476I$	$-3.73555-2.61983I$	$-8.00000+0.I$
$u=1.43890+0.08829I$ $a=0.154398-0.639808I$ $b=0.223053-0.509205I$	$-3.80031+0.34121I$	0
$u=1.43890-0.08829I$ $a=0.154398+0.639808I$ $b=0.223053+0.509205I$	$-3.80031-0.34121I$	0
$u=0.260834+0.419052I$ $a=2.03463+1.18472I$ $b=0.391031-0.543122I$	$2.58263-1.72264I$	$-1.48426+4.56743I$
$u=0.260834-0.419052I$ $a=2.03463-1.18472I$ $b=0.391031+0.543122I$	$2.58263+1.72264I$	$-1.48426-4.56743I$
$u=1.46397+0.47029I$ $a=0.216499+0.464815I$ $b=0.464344+0.604489I$	$-4.60981-1.86353I$	0
$u=1.46397-0.47029I$ $a=0.216499-0.464815I$ $b=0.464344-0.604489I$	$-4.60981+1.86353I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.269404$ $a = \quad 1.56780$ $b = -0.194159$	-0.842074	-11.5210
$u = -0.227844 + 0.022165I$ $a = -2.25639 - 3.86595I$ $b = -0.857888 - 0.842032I$	$-0.87309 - 2.36039I$	$-4.63324 + 1.20512I$
$u = -0.227844 - 0.022165I$ $a = -2.25639 + 3.86595I$ $b = -0.857888 + 0.842032I$	$-0.87309 + 2.36039I$	$-4.63324 - 1.20512I$

II. $I_2^u =$
$\langle -7u^{23}-26u^{22}+\cdots+b-8,\ -6u^{23}-18u^{22}+\cdots+a-4,\ u^{24}+4u^{23}+\cdots+3u+1\rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 6u^{23} + 18u^{22} + \cdots + 12u + 4 \\ 7u^{23} + 26u^{22} + \cdots + 17u + 8 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -4u^{23} - 13u^{22} + \cdots - 9u - 4 \\ -5u^{23} - 21u^{22} + \cdots - 14u - 9 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^2 + 1 \\ -u^4 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -8u^{23} - 25u^{22} + \cdots - 16u - 7 \\ -7u^{23} - 25u^{22} + \cdots - 16u - 9 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^{23} + 4u^{22} + \cdots + u + 1 \\ 3u^{22} + 11u^{21} + \cdots - 2u + 1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -4u^{23} - 12u^{22} + \cdots - 7u - 3 \\ -4u^{23} - 10u^{22} + \cdots - 5u - 2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -2u^{21} - 2u^{20} + \cdots - u - 1 \\ 2u^{22} + 2u^{21} + \cdots + u^2 + u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 12u^{23} + 36u^{22} + \cdots + 24u + 8 \\ 13u^{23} + 44u^{22} + \cdots + 31u + 14 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -29u^{23} - 91u^{22} + 16u^{21} + 431u^{20} + 459u^{19} - 678u^{18} - 1686u^{17} - 253u^{16} + 2426u^{15} + 2119u^{14} - 1498u^{13} - 3180u^{12} - 361u^{11} + 2604u^{10} + 1636u^9 - 999u^8 - 1511u^7 - 223u^6 + 523u^5 + 331u^4 + 41u^3 - 43u^2 - 54u - 34$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{24} - 12u^{23} + \cdots - u + 1$
c_2	$u^{24} + 4u^{23} + \cdots + 3u + 1$
c_3	$u^{24} + 6u^{22} + \cdots - 3u + 1$
c_4	$u^{24} - 4u^{23} + \cdots - 3u + 1$
c_5	$u^{24} + 12u^{22} + \cdots + 3u + 1$
c_6	$u^{24} - 3u^{23} + \cdots + 12u^2 + 1$
c_7	$u^{24} - 5u^{21} + \cdots - 3u + 1$
c_8	$u^{24} + 6u^{22} + \cdots + 3u + 1$
c_9	$u^{24} - 6u^{22} + \cdots - 12u + 1$
c_{10}	$u^{24} + 12u^{22} + \cdots - 3u + 1$
c_{11}	$u^{24} + 3u^{23} + \cdots + 5u^3 + 1$
c_{12}	$u^{24} + 3u^{23} + \cdots + 12u^2 + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{24} + 4y^{23} + \cdots - 21y + 1$
c_2, c_4	$y^{24} - 12y^{23} + \cdots - y + 1$
c_3, c_8	$y^{24} + 12y^{23} + \cdots - y + 1$
c_5, c_{10}	$y^{24} + 24y^{23} + \cdots + 19y + 1$
c_6, c_{12}	$y^{24} + 19y^{23} + \cdots + 24y + 1$
c_7	$y^{24} - 6y^{22} + \cdots - 5y + 1$
c_9	$y^{24} - 12y^{23} + \cdots - 12y + 1$
c_{11}	$y^{24} - 5y^{23} + \cdots - 6y^2 + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.984920 + 0.085434I$ $a = -0.372048 + 0.752170I$ $b = -4.80168 - 0.66751I$	$-3.01331 + 2.64864I$	$-17.2617 - 24.3171I$
$u = 0.984920 - 0.085434I$ $a = -0.372048 - 0.752170I$ $b = -4.80168 + 0.66751I$	$-3.01331 - 2.64864I$	$-17.2617 + 24.3171I$
$u = 0.763857 + 0.602118I$ $a = 0.841603 + 0.511815I$ $b = 1.30689 - 0.83936I$	$-1.69057 - 3.87913I$	$-9.47886 + 7.35968I$
$u = 0.763857 - 0.602118I$ $a = 0.841603 - 0.511815I$ $b = 1.30689 + 0.83936I$	$-1.69057 + 3.87913I$	$-9.47886 - 7.35968I$
$u = -0.437650 + 0.935412I$ $a = -0.805664 + 0.841021I$ $b = -0.324138 - 0.390524I$	$3.62995 - 4.17688I$	$-4.23406 + 3.79944I$
$u = -0.437650 - 0.935412I$ $a = -0.805664 - 0.841021I$ $b = -0.324138 + 0.390524I$	$3.62995 + 4.17688I$	$-4.23406 - 3.79944I$
$u = -0.616062 + 0.730459I$ $a = 1.41254 - 0.90245I$ $b = 0.343656 - 0.420784I$	$5.66713 + 0.57004I$	$-0.69951 - 1.76332I$
$u = -0.616062 - 0.730459I$ $a = 1.41254 + 0.90245I$ $b = 0.343656 + 0.420784I$	$5.66713 - 0.57004I$	$-0.69951 + 1.76332I$
$u = -0.957326 + 0.490984I$ $a = -0.224450 - 0.775238I$ $b = -1.92308 - 0.21628I$	$-1.33907 + 0.48887I$	$-9.91527 - 0.20213I$
$u = -0.957326 - 0.490984I$ $a = -0.224450 + 0.775238I$ $b = -1.92308 + 0.21628I$	$-1.33907 - 0.48887I$	$-9.91527 + 0.20213I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 0.837264 + 0.198649I$ $a = -0.35756 - 1.77617I$ $b = -2.85690 + 0.10461I$	$1.50297 - 0.47371I$	$-3.53428 - 7.18464I$
$u = \ 0.837264 - 0.198649I$ $a = -0.35756 + 1.77617I$ $b = -2.85690 - 0.10461I$	$1.50297 + 0.47371I$	$-3.53428 + 7.18464I$
$u = -1.011590 + 0.626572I$ $a = -0.63461 + 1.28046I$ $b = -0.63821 + 1.76611I$	$4.46285 + 4.61755I$	$-0.52048 - 4.72657I$
$u = -1.011590 - 0.626572I$ $a = -0.63461 - 1.28046I$ $b = -0.63821 - 1.76611I$	$4.46285 - 4.61755I$	$-0.52048 + 4.72657I$
$u = -0.623632 + 0.446968I$ $a = -0.922814 + 0.255464I$ $b = -0.62123 + 1.53634I$	$-0.33081 + 3.49000I$	$-8.88183 - 7.57316I$
$u = -0.623632 - 0.446968I$ $a = -0.922814 - 0.255464I$ $b = -0.62123 - 1.53634I$	$-0.33081 - 3.49000I$	$-8.88183 + 7.57316I$
$u = -1.179500 + 0.461469I$ $a = -0.276345 + 0.356584I$ $b = -0.068997 + 1.190250I$	$-4.59064 + 7.57890I$	$-4.1390 - 15.0235I$
$u = -1.179500 - 0.461469I$ $a = -0.276345 - 0.356584I$ $b = -0.068997 - 1.190250I$	$-4.59064 - 7.57890I$	$-4.1390 + 15.0235I$
$u = -1.134110 + 0.656648I$ $a = \ 0.790631 - 0.482201I$ $b = \ 2.29512 - 0.67055I$	$1.50968 + 9.96183I$	$-8.32009 - 8.52814I$
$u = -1.134110 - 0.656648I$ $a = \ 0.790631 + 0.482201I$ $b = \ 2.29512 + 0.67055I$	$1.50968 - 9.96183I$	$-8.32009 + 8.52814I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 1.38139 + 0.41666I$ $a = -0.204697 - 0.498796I$ $b = -0.243831 - 0.830201I$	$-4.43225 - 1.71576I$	$-1.84111 - 5.35701I$
$u = \quad 1.38139 - 0.41666I$ $a = -0.204697 + 0.498796I$ $b = -0.243831 + 0.830201I$	$-4.43225 + 1.71576I$	$-1.84111 + 5.35701I$
$u = -0.007568 + 0.520547I$ $a = \quad 1.253410 - 0.565225I$ $b = -0.467606 - 0.786520I$	$-1.37593 - 3.51457I$	$-7.17387 + 6.69949I$
$u = -0.007568 - 0.520547I$ $a = \quad 1.253410 + 0.565225I$ $b = -0.467606 + 0.786520I$	$-1.37593 + 3.51457I$	$-7.17387 - 6.69949I$

III. $I_3^u = \langle a^8 + 2a^6 + a^5 + 4a^4 + 3a^3 + 5a^2 + 7b - 9a + 6,\ a^9 - a^8 + 2a^7 - a^6 + 3a^5 - a^4 + 2a^3 + a + 1,\ u - 1\rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} a \\ -\frac{1}{7}a^8 - \frac{2}{7}a^6 + \cdots + \frac{9}{7}a - \frac{6}{7} \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -a^2 \\ \frac{1}{7}a^8 + \frac{2}{7}a^6 + \cdots + \frac{5}{7}a + \frac{6}{7} \end{pmatrix}$$

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

$$a_7 = \begin{pmatrix} -a^2 \\ \frac{1}{7}a^8 + \frac{2}{7}a^6 + \cdots + \frac{5}{7}a + \frac{6}{7} \end{pmatrix}$$

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

$$a_{10} = \begin{pmatrix} a^3 + a \\ -\frac{2}{7}a^8 - \frac{4}{7}a^6 + \cdots + \frac{4}{7}a - \frac{5}{7} \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -a^8 - 2a^6 - 2a^4 - 2a^2 \\ -a^8 - 2a^6 - 2a^4 - 2a^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -a^8 - 2a^6 - 2a^4 - 2a^2 \\ -a^8 - 2a^6 - 2a^4 - 2a^2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} a^4 \\ -\frac{1}{7}a^8 - \frac{2}{7}a^6 + \cdots + \frac{2}{7}a - \frac{6}{7} \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{5}{49}a^8 + \frac{40}{7}a^7 - \frac{151}{49}a^6 + \frac{208}{49}a^5 - \frac{85}{49}a^4 + \frac{442}{49}a^3 - \frac{31}{49}a^2 + \frac{95}{49}a - \frac{558}{49}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2	$(u-1)^9$
c_3, c_8	u^9
c_4	$(u+1)^9$
c_5	$u^9+u^8+2u^7+u^6+3u^5+u^4+2u^3+u-1$
c_6	$u^9+3u^8+8u^7+13u^6+17u^5+17u^4+12u^3+6u^2+u-1$
c_7	$u^9-5u^8+12u^7-15u^6+9u^5+u^4-4u^3+2u^2+u-1$
c_9	$u^9+u^8-2u^7-3u^6+u^5+3u^4+2u^3-u-1$
c_{10}	$u^9-u^8+2u^7-u^6+3u^5-u^4+2u^3+u+1$
c_{11}	$u^9-u^8-2u^7+3u^6+u^5-3u^4+2u^3-u+1$
c_{12}	$u^9-3u^8+8u^7-13u^6+17u^5-17u^4+12u^3-6u^2+u+1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4	$(y-1)^9$
c_3, c_8	y^9
c_5, c_{10}	$y^9 + 3y^8 + 8y^7 + 13y^6 + 17y^5 + 17y^4 + 12y^3 + 6y^2 + y - 1$
c_6, c_{12}	$y^9 + 7y^8 + 20y^7 + 25y^6 + 5y^5 - 15y^4 + 22y^2 + 13y - 1$
c_7	$y^9 - y^8 + 12y^7 - 7y^6 + 37y^5 + y^4 - 10y^2 + 5y - 1$
c_9, c_{11}	$y^9 - 5y^8 + 12y^7 - 15y^6 + 9y^5 + y^4 - 4y^3 + 2y^2 + y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.00000$ $a = -0.140343 + 0.966856I$ $b = -0.79086 + 1.50115I$	$0.13850 + 2.09337I$	$-5.49232 - 4.08340I$
$u = 1.00000$ $a = -0.140343 - 0.966856I$ $b = -0.79086 - 1.50115I$	$0.13850 - 2.09337I$	$-5.49232 + 4.08340I$
$u = 1.00000$ $a = -0.628449 + 0.875112I$ $b = -1.73338 + 1.49417I$	$-2.26187 + 2.45442I$	$-12.87375 - 1.42824I$
$u = 1.00000$ $a = -0.628449 - 0.875112I$ $b = -1.73338 - 1.49417I$	$-2.26187 - 2.45442I$	$-12.87375 + 1.42824I$
$u = 1.00000$ $a = 0.796005 + 0.733148I$ $b = 1.239760 + 0.200327I$	$-6.01628 + 1.33617I$	$-13.72452 + 1.86826I$
$u = 1.00000$ $a = 0.796005 - 0.733148I$ $b = 1.239760 - 0.200327I$	$-6.01628 - 1.33617I$	$-13.72452 - 1.86826I$
$u = 1.00000$ $a = 0.728966 + 0.986295I$ $b = 1.19887 + 1.02988I$	$-5.24306 - 7.08493I$	$-7.53426 + 10.08360I$
$u = 1.00000$ $a = 0.728966 - 0.986295I$ $b = 1.19887 - 1.02988I$	$-5.24306 + 7.08493I$	$-7.53426 - 10.08360I$
$u = 1.00000$ $a = -0.512358$ $b = -1.68593$	-2.84338	-14.1380

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^9)(u^{24}-12u^{23}+\cdots-u+1)$ $\cdot(u^{153}+76u^{152}+\cdots+169142u+2401)$
c_2	$((u-1)^9)(u^{24}+4u^{23}+\cdots+3u+1)(u^{153}-14u^{152}+\cdots-762u+49)$
c_3	$u^9(u^{24}+6u^{22}+\cdots-3u+1)(u^{153}-u^{152}+\cdots-100352u+25088)$
c_4	$((u+1)^9)(u^{24}-4u^{23}+\cdots-3u+1)(u^{153}-14u^{152}+\cdots-762u+49)$
c_5	$(u^9+u^8+\cdots+u-1)(u^{24}+12u^{22}+\cdots+3u+1)$ $\cdot(u^{153}+2u^{152}+\cdots+1528u+649)$
c_6	$(u^9+3u^8+8u^7+13u^6+17u^5+17u^4+12u^3+6u^2+u-1)$ $\cdot(u^{24}-3u^{23}+\cdots+12u^2+1)(u^{153}+3u^{152}+\cdots+50071u+3559)$
c_7	$(u^9-5u^8+12u^7-15u^6+9u^5+u^4-4u^3+2u^2+u-1)$ $\cdot(u^{24}-5u^{21}+\cdots-3u+1)(u^{153}-10u^{152}+\cdots+14u+17)$
c_8	$u^9(u^{24}+6u^{22}+\cdots+3u+1)(u^{153}-u^{152}+\cdots-100352u+25088)$
c_9	$(u^9+u^8-2u^7-3u^6+u^5+3u^4+2u^3-u-1)$ $\cdot(u^{24}-6u^{22}+\cdots-12u+1)(u^{153}-20u^{152}+\cdots+18213u+14027)$
c_{10}	$(u^9-u^8+\cdots+u+1)(u^{24}+12u^{22}+\cdots-3u+1)$ $\cdot(u^{153}+2u^{152}+\cdots+1528u+649)$
c_{11}	$(u^9-u^8+\cdots-u+1)(u^{24}+3u^{23}+\cdots+5u^3+1)$ $\cdot(u^{153}-u^{152}+\cdots+118105u+15199)$
c_{12}	$(u^9-3u^8+8u^7-13u^6+17u^5-17u^4+12u^3-6u^2+u+1)$ $\cdot(u^{24}+3u^{23}+\cdots+12u^2+1)(u^{153}+3u^{152}+\cdots+50071u+3559)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^9)(y^{24}+4y^{23}+\cdots-21y+1)$ $\cdot(y^{153}+16y^{152}+\cdots+4705654178y-5764801)$
c_2, c_4	$((y-1)^9)(y^{24}-12y^{23}+\cdots-y+1)$ $\cdot(y^{153}-76y^{152}+\cdots+169142y-2401)$
c_3, c_8	$y^9(y^{24}+12y^{23}+\cdots-y+1)$ $\cdot(y^{153}+69y^{152}+\cdots-16338911232y-629407744)$
c_5, c_{10}	$(y^9+3y^8+8y^7+13y^6+17y^5+17y^4+12y^3+6y^2+y-1)$ $\cdot(y^{24}+24y^{23}+\cdots+19y+1)$ $\cdot(y^{153}+96y^{152}+\cdots-17206606y-421201)$
c_6, c_{12}	$(y^9+7y^8+20y^7+25y^6+5y^5-15y^4+22y^2+13y-1)$ $\cdot(y^{24}+19y^{23}+\cdots+24y+1)$ $\cdot(y^{153}+99y^{152}+\cdots-548780483y-12666481)$
c_7	$(y^9-y^8+12y^7-7y^6+37y^5+y^4-10y^2+5y-1)$ $\cdot(y^{24}-6y^{22}+\cdots-5y+1)(y^{153}-8y^{152}+\cdots-9698y-289)$
c_9	$(y^9-5y^8+12y^7-15y^6+9y^5+y^4-4y^3+2y^2+y-1)$ $\cdot(y^{24}-12y^{23}+\cdots-12y+1)$ $\cdot(y^{153}-40y^{152}+\cdots+18060550885y-196756729)$
c_{11}	$(y^9-5y^8+12y^7-15y^6+9y^5+y^4-4y^3+2y^2+y-1)$ $\cdot(y^{24}-5y^{23}+\cdots-6y^2+1)$ $\cdot(y^{153}+3y^{152}+\cdots-3235076783y-231009601)$