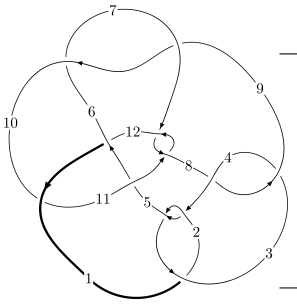
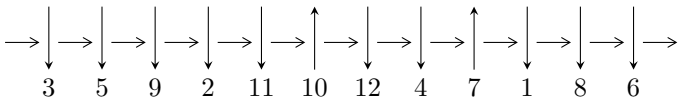
$12a_{0154}$ $(K12a_{0154})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 1.02998 \times 10^{761} u^{152} + 2.57836 \times 10^{761} u^{151} + \cdots + 1.06742 \times 10^{765} b + 1.14062 \times 10^{766}, \\ & - 2.20954 \times 10^{765} u^{152} + 1.24228 \times 10^{765} u^{151} + \cdots + 2.61518 \times 10^{768} a - 1.91271 \times 10^{769}, \\ & u^{153} - u^{152} + \cdots - 100352u + 25088 \rangle \\ I_2^u = \langle & -17789137958 u^{23} + 33220776343 u^{22} + \cdots + 123456179965 b + 41044745272, \\ & 622863190774 u^{23} - 45963389324 u^{22} + \cdots + 123456179965 a + 2100783655234, \\ & u^{24} + 6u^{22} + \cdots + 3u + 1 \rangle \end{aligned}$$

$$\begin{aligned} I_1^v = \langle & a,\ -82026 v^8 - 2033115 v^7 + \cdots + 764761 b + 1552510, \\ & 7v^9 + 3v^8 + 2v^7 - 14v^6 - 23v^5 + 33v^4 - v^3 - 8v^2 + v + 1 \rangle \end{aligned}$$

* 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. $\boldsymbol{I_1^u = \langle 1.03 \times 10^{761} u^{152} + 2.58 \times 10^{761} u^{151} + \cdots + 1.07 \times 10^{765} b + 1.14 \times 10^{766},\ -2.21 \times 10^{765} u^{152} + 1.24 \times 10^{765} u^{151} + \cdots + 2.62 \times 10^{768} a - 1.91 \times 10^{769},\ u^{153} - u^{152} + \cdots - 100352u + 25088 \rangle}$

(i) Arc colorings

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

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

$$a_{12} = \begin{pmatrix} 0.000844890u^{152} - 0.000475027u^{151} + \cdots + 19.1237u + 7.31387 \\ -0.0000964918u^{152} - 0.000241550u^{151} + \cdots + 37.0831u - 10.6858 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.00112273u^{152} - 0.00136252u^{151} + \cdots + 138.408u - 25.4192 \\ -0.000859123u^{152} + 0.000740375u^{151} + \cdots - 37.0962u + 0.767980 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.000925760u^{152} - 0.000112605u^{151} + \cdots - 40.1665u + 26.1899 \\ 0.000336810u^{152} - 0.00101223u^{151} + \cdots + 93.6762u - 21.8306 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.000495709u^{152} + 0.000282113u^{151} + \cdots - 94.5284u + 28.2025 \\ -0.000105642u^{152} + 0.000249707u^{151} + \cdots - 29.9100u + 5.04860 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.000710992u^{152} - 0.000378253u^{151} + \cdots + 4.68980u + 5.82071 \\ -0.0000403797u^{152} - 0.0000501797u^{151} + \cdots + 22.7835u - 6.64752 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.000469687u^{152} - 0.000216188u^{151} + \cdots + 3.01774u + 4.10464 \\ -0.000116324u^{152} + 0.0000557221u^{151} + \cdots + 19.2135u - 6.37565 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.000748398u^{152} - 0.000716577u^{151} + \cdots + 56.2068u - 3.37190 \\ -0.0000964918u^{152} - 0.000241550u^{151} + \cdots + 37.0831u - 10.6858 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.000340256u^{152} - 0.000271854u^{151} + \cdots - 2.54011u + 4.12049 \\ -0.000370736u^{152} + 0.000106399u^{151} + \cdots - 7.22991u - 1.70022 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.000503104u^{152} + 0.00134742u^{151} + \cdots - 176.014u + 50.8730$

(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	$u^{153}-u^{152}+\cdots+118105u+15199$
c_6, c_9	$u^{153}+3u^{152}+\cdots+50071u+3559$
c_7, c_{11}	$u^{153}+2u^{152}+\cdots+1528u+649$
c_{10}	$u^{153}-20u^{152}+\cdots+18213u+14027$
c_{12}	$u^{153}-10u^{152}+\cdots+14u+17$

(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	$y^{153} + 3y^{152} + \cdots - 3235076783y - 231009601$
c_6, c_9	$y^{153} + 99y^{152} + \cdots - 548780483y - 12666481$
c_7, c_{11}	$y^{153} + 96y^{152} + \cdots - 17206606y - 421201$
c_{10}	$y^{153} - 40y^{152} + \cdots + 18060550885y - 196756729$
c_{12}	$y^{153} - 8y^{152} + \cdots - 9698y - 289$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.535685+0.850064I$ $a=-0.957779+0.744294I$ $b=\ \ 1.120390+0.276457I$	$-6.54190+4.09896I$	0
$u=-0.535685-0.850064I$ $a=-0.957779-0.744294I$ $b=\ \ 1.120390-0.276457I$	$-6.54190-4.09896I$	0
$u=-0.445504+0.916237I$ $a=-1.78652-2.00173I$ $b=-0.362762+1.135490I$	$0.46000+4.24652I$	0
$u=-0.445504-0.916237I$ $a=-1.78652+2.00173I$ $b=-0.362762-1.135490I$	$0.46000-4.24652I$	0
$u=\ \ 0.963884+0.333339I$ $a=\ \ 0.449763-0.089990I$ $b=\ \ 0.820219-1.135580I$	$-0.38761+5.07239I$	0
$u=\ \ 0.963884-0.333339I$ $a=\ \ 0.449763+0.089990I$ $b=\ \ 0.820219+1.135580I$	$-0.38761-5.07239I$	0
$u=\ \ 0.876915+0.376484I$ $a=\ \ 1.152500+0.137808I$ $b=\ \ 0.508008+0.009450I$	$-1.93090+3.15315I$	0
$u=\ \ 0.876915-0.376484I$ $a=\ \ 1.152500-0.137808I$ $b=\ \ 0.508008-0.009450I$	$-1.93090-3.15315I$	0
$u=-0.609060+0.856031I$ $a=\ \ 0.449094-0.010633I$ $b=\ \ 0.492806-0.505007I$	$-1.61580+2.44952I$	0
$u=-0.609060-0.856031I$ $a=\ \ 0.449094+0.010633I$ $b=\ \ 0.492806+0.505007I$	$-1.61580-2.44952I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.204374+1.045990I$ $a=\ \ 1.53157+2.23881I$ $b=\ \ 0.036430-0.934205I$	$1.15055-2.63661I$	0
$u=-0.204374-1.045990I$ $a=\ \ 1.53157-2.23881I$ $b=\ \ 0.036430+0.934205I$	$1.15055+2.63661I$	0
$u=-0.508162+0.782935I$ $a=-0.266025-0.838281I$ $b=-1.134630+0.627976I$	$-6.76823+0.15150I$	0
$u=-0.508162-0.782935I$ $a=-0.266025+0.838281I$ $b=-1.134630-0.627976I$	$-6.76823-0.15150I$	0
$u=-0.922935+0.121870I$ $a=\ \ 0.581391-0.011746I$ $b=\ \ 0.585755-1.155070I$	$0.157068+1.043870I$	0
$u=-0.922935-0.121870I$ $a=\ \ 0.581391+0.011746I$ $b=\ \ 0.585755+1.155070I$	$0.157068-1.043870I$	0
$u=\ \ 0.903920+0.209501I$ $a=\ \ 0.553053+0.124360I$ $b=\ \ 0.270744-1.172410I$	$2.95829+2.47842I$	0
$u=\ \ 0.903920-0.209501I$ $a=\ \ 0.553053-0.124360I$ $b=\ \ 0.270744+1.172410I$	$2.95829-2.47842I$	0
$u=\ \ 0.300782+0.875145I$ $a=\ \ 0.729671+0.099867I$ $b=\ \ 0.663486-0.115067I$	$-2.14959-1.73247I$	0
$u=\ \ 0.300782-0.875145I$ $a=\ \ 0.729671-0.099867I$ $b=\ \ 0.663486+0.115067I$	$-2.14959+1.73247I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.258744+1.046120I$ $a=-0.44696-2.03128I$ $b=\ \ 0.26976+1.75917I$	$5.01099+0.58946I$	0
$u=-0.258744-1.046120I$ $a=-0.44696+2.03128I$ $b=\ \ 0.26976-1.75917I$	$5.01099-0.58946I$	0
$u=\ \ 0.642698+0.645143I$ $a=-0.136532+0.483931I$ $b=-0.665064-0.759183I$	$-6.10563-7.70875I$	0
$u=\ \ 0.642698-0.645143I$ $a=-0.136532-0.483931I$ $b=-0.665064+0.759183I$	$-6.10563+7.70875I$	0
$u=-0.801085+0.431000I$ $a=\ \ 0.310129-0.841518I$ $b=-0.344721-1.277040I$	$0.54761-1.44300I$	0
$u=-0.801085-0.431000I$ $a=\ \ 0.310129+0.841518I$ $b=-0.344721+1.277040I$	$0.54761+1.44300I$	0
$u=\ \ 0.002838+1.091580I$ $a=-0.278846+0.243125I$ $b=\ \ 1.151340+0.385985I$	$0.67913-5.24901I$	0
$u=\ \ 0.002838-1.091580I$ $a=-0.278846-0.243125I$ $b=\ \ 1.151340-0.385985I$	$0.67913+5.24901I$	0
$u=-0.777727+0.468389I$ $a=\ \ 0.032062-1.364940I$ $b=\ \ 0.364302+1.038620I$	$-3.53913-4.44208I$	0
$u=-0.777727-0.468389I$ $a=\ \ 0.032062+1.364940I$ $b=\ \ 0.364302-1.038620I$	$-3.53913+4.44208I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.681603+0.856158I$ $a=\ \ 0.383637-0.453388I$ $b=-0.097180-0.443108I$	$-1.64798+2.66834I$	0
$u=-0.681603-0.856158I$ $a=\ \ 0.383637+0.453388I$ $b=-0.097180+0.443108I$	$-1.64798-2.66834I$	0
$u=-0.448783+0.780419I$ $a=\ \ 0.460069+0.006024I$ $b=\ \ 0.367827+0.888025I$	$0.011275-0.515252I$	0
$u=-0.448783-0.780419I$ $a=\ \ 0.460069-0.006024I$ $b=\ \ 0.367827-0.888025I$	$0.011275+0.515252I$	0
$u=\ \ 0.354401+1.046270I$ $a=\ \ 0.040555-0.277760I$ $b=\ \ 1.137550-0.683186I$	$-0.071240+0.591588I$	0
$u=\ \ 0.354401-1.046270I$ $a=\ \ 0.040555+0.277760I$ $b=\ \ 1.137550+0.683186I$	$-0.071240-0.591588I$	0
$u=\ \ 0.382598+1.036750I$ $a=-0.60471+2.75188I$ $b=-0.252020-1.126350I$	$0.49834-4.72614I$	0
$u=\ \ 0.382598-1.036750I$ $a=-0.60471-2.75188I$ $b=-0.252020+1.126350I$	$0.49834+4.72614I$	0
$u=\ \ 0.815720+0.746625I$ $a=\ \ 0.225791+0.746248I$ $b=-0.316503+0.379948I$	$-5.37187+1.31466I$	0
$u=\ \ 0.815720-0.746625I$ $a=\ \ 0.225791-0.746248I$ $b=-0.316503-0.379948I$	$-5.37187-1.31466I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.955575+0.565339I$ $a=-0.587877-0.950056I$ $b=-1.218280+0.222612I$	$-5.98888-6.70269I$	0
$u=-0.955575-0.565339I$ $a=-0.587877+0.950056I$ $b=-1.218280-0.222612I$	$-5.98888+6.70269I$	0
$u=0.182390+1.095740I$ $a=0.168163-0.255873I$ $b=-0.715456+0.340843I$	$3.19945+0.72226I$	0
$u=0.182390-1.095740I$ $a=0.168163+0.255873I$ $b=-0.715456-0.340843I$	$3.19945-0.72226I$	0
$u=0.805754+0.768499I$ $a=0.337734+0.305147I$ $b=0.193217+0.385041I$	$-5.39360+1.42120I$	0
$u=0.805754-0.768499I$ $a=0.337734-0.305147I$ $b=0.193217-0.385041I$	$-5.39360-1.42120I$	0
$u=0.348398+1.061970I$ $a=0.99845-1.60723I$ $b=0.49146+1.45501I$	$4.66993-1.60864I$	0
$u=0.348398-1.061970I$ $a=0.99845+1.60723I$ $b=0.49146-1.45501I$	$4.66993+1.60864I$	0
$u=-0.530265+1.000750I$ $a=0.437822-0.746270I$ $b=0.644088+1.066550I$	$-2.51484+2.05166I$	0
$u=-0.530265-1.000750I$ $a=0.437822+0.746270I$ $b=0.644088-1.066550I$	$-2.51484-2.05166I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.754916 + 0.396167I$ $a = -0.337136 + 1.209200I$ $b = -0.910902 - 0.277632I$	$-3.73555 + 2.61983I$	0
$u = 0.754916 - 0.396167I$ $a = -0.337136 - 1.209200I$ $b = -0.910902 + 0.277632I$	$-3.73555 - 2.61983I$	0
$u = 0.200182 + 0.827275I$ $a = 0.766133 + 0.583290I$ $b = 0.635459 - 0.905618I$	$-0.70464 + 2.18373I$	0
$u = 0.200182 - 0.827275I$ $a = 0.766133 - 0.583290I$ $b = 0.635459 + 0.905618I$	$-0.70464 - 2.18373I$	0
$u = -1.025680 + 0.527430I$ $a = 0.470833 - 0.112701I$ $b = 0.416683 + 1.162410I$	$1.21069 - 6.89643I$	0
$u = -1.025680 - 0.527430I$ $a = 0.470833 + 0.112701I$ $b = 0.416683 - 1.162410I$	$1.21069 + 6.89643I$	0
$u = -0.369768 + 1.113800I$ $a = -0.290481 - 0.523778I$ $b = -0.680367 - 0.072356I$	$2.45307 + 3.31889I$	0
$u = -0.369768 - 1.113800I$ $a = -0.290481 + 0.523778I$ $b = -0.680367 + 0.072356I$	$2.45307 - 3.31889I$	0
$u = -1.137740 + 0.304996I$ $a = -0.040385 + 0.439482I$ $b = -0.553752 - 1.228560I$	$-0.70902 - 7.98208I$	0
$u = -1.137740 - 0.304996I$ $a = -0.040385 - 0.439482I$ $b = -0.553752 + 1.228560I$	$-0.70902 + 7.98208I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.466239 + 1.093730I$ $a = 0.72766 - 2.29526I$ $b = 0.621432 + 1.262100I$	$-3.40243 - 10.22740I$	0
$u = 0.466239 - 1.093730I$ $a = 0.72766 + 2.29526I$ $b = 0.621432 - 1.262100I$	$-3.40243 + 10.22740I$	0
$u = -0.475035 + 1.092450I$ $a = 0.172016 + 0.035937I$ $b = -0.748153 - 0.597520I$	$1.78661 + 4.16402I$	0
$u = -0.475035 - 1.092450I$ $a = 0.172016 - 0.035937I$ $b = -0.748153 + 0.597520I$	$1.78661 - 4.16402I$	0
$u = 0.495026 + 1.083820I$ $a = 1.63582 - 1.32478I$ $b = 0.224946 + 0.846168I$	$-0.38974 - 2.15739I$	0
$u = 0.495026 - 1.083820I$ $a = 1.63582 + 1.32478I$ $b = 0.224946 - 0.846168I$	$-0.38974 + 2.15739I$	0
$u = 0.152811 + 0.785601I$ $a = 0.27774 + 3.81988I$ $b = -0.714576 - 1.068750I$	$-1.47879 - 2.88577I$	$-8.00000 + 0.I$
$u = 0.152811 - 0.785601I$ $a = 0.27774 - 3.81988I$ $b = -0.714576 + 1.068750I$	$-1.47879 + 2.88577I$	$-8.00000 + 0.I$
$u = -0.176246 + 0.773662I$ $a = 0.482610 - 0.141298I$ $b = 0.116541 - 0.720019I$	$0.76492 + 3.31721I$	$0. - 8.04165I$
$u = -0.176246 - 0.773662I$ $a = 0.482610 + 0.141298I$ $b = 0.116541 + 0.720019I$	$0.76492 - 3.31721I$	$0. + 8.04165I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.558564+0.552366I$ $a=-3.74217-2.83400I$ $b=-0.462300+0.973230I$	$-3.84037+2.35778I$	$-15.4899-4.8701I$
$u=-0.558564-0.552366I$ $a=-3.74217+2.83400I$ $b=-0.462300-0.973230I$	$-3.84037-2.35778I$	$-15.4899+4.8701I$
$u=-0.450215+0.639870I$ $a=\ \ 2.57702+1.32495I$ $b=\ \ 0.177883-1.146750I$	$0.059344-0.653379I$	$-8.00000+0.I$
$u=-0.450215-0.639870I$ $a=\ \ 2.57702-1.32495I$ $b=\ \ 0.177883+1.146750I$	$0.059344+0.653379I$	$-8.00000+0.I$
$u=\ \ 0.535702+1.095500I$ $a=-0.82276+1.48947I$ $b=\ \ 0.19824-1.88735I$	$3.27382-5.45616I$	0
$u=\ \ 0.535702-1.095500I$ $a=-0.82276-1.48947I$ $b=\ \ 0.19824+1.88735I$	$3.27382+5.45616I$	0
$u=\ \ 0.746802+0.969424I$ $a=\ \ 0.277624+0.382748I$ $b=-0.031623+0.371474I$	$-4.78165-7.26278I$	0
$u=\ \ 0.746802-0.969424I$ $a=\ \ 0.277624-0.382748I$ $b=-0.031623-0.371474I$	$-4.78165+7.26278I$	0
$u=\ \ 1.212260+0.176281I$ $a=\ \ 0.302197+0.782964I$ $b=-0.130880-0.753790I$	$-1.88517+2.34362I$	0
$u=\ \ 1.212260-0.176281I$ $a=\ \ 0.302197-0.782964I$ $b=-0.130880+0.753790I$	$-1.88517-2.34362I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.550216 + 1.100350I$ $a = -0.478305 - 0.430420I$ $b = 1.320680 - 0.128865I$	$-1.60886 - 7.51304I$	0
$u = 0.550216 - 1.100350I$ $a = -0.478305 + 0.430420I$ $b = 1.320680 + 0.128865I$	$-1.60886 + 7.51304I$	0
$u = 0.304943 + 0.691304I$ $a = -0.07698 + 1.55372I$ $b = -0.483695 - 0.070669I$	$-2.73096 - 1.04396I$	$-10.23832 + 5.73431I$
$u = 0.304943 - 0.691304I$ $a = -0.07698 - 1.55372I$ $b = -0.483695 + 0.070669I$	$-2.73096 + 1.04396I$	$-10.23832 - 5.73431I$
$u = 0.712071 + 1.022870I$ $a = 0.288373 - 0.107361I$ $b = 0.671877 + 0.301176I$	$-4.47893 - 7.12118I$	0
$u = 0.712071 - 1.022870I$ $a = 0.288373 + 0.107361I$ $b = 0.671877 - 0.301176I$	$-4.47893 + 7.12118I$	0
$u = 0.684741 + 0.297273I$ $a = 0.845673 - 0.021751I$ $b = 0.034238 + 1.161630I$	$2.58263 - 1.72264I$	$-1.48426 + 4.56743I$
$u = 0.684741 - 0.297273I$ $a = 0.845673 + 0.021751I$ $b = 0.034238 - 1.161630I$	$2.58263 + 1.72264I$	$-1.48426 - 4.56743I$
$u = 0.655157 + 0.357234I$ $a = -3.10571 - 0.15746I$ $b = -0.08775 - 1.68660I$	$1.129760 + 0.814632I$	$-13.41803 - 2.99025I$
$u = 0.655157 - 0.357234I$ $a = -3.10571 + 0.15746I$ $b = -0.08775 + 1.68660I$	$1.129760 - 0.814632I$	$-13.41803 + 2.99025I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.185061+1.241300I$ $a=-0.20210+2.01403I$ $b=\ \ 0.278654-0.906986I$	$-3.80031+0.34121I$	0
$u=-0.185061-1.241300I$ $a=-0.20210-2.01403I$ $b=\ \ 0.278654+0.906986I$	$-3.80031-0.34121I$	0
$u=-0.605985+1.099590I$ $a=-0.98424-2.11885I$ $b=-0.335725+1.216940I$	$-1.62186+9.68707I$	0
$u=-0.605985-1.099590I$ $a=-0.98424+2.11885I$ $b=-0.335725-1.216940I$	$-1.62186-9.68707I$	0
$u=-0.580152+1.119200I$ $a=\ \ 1.03851+1.16281I$ $b=\ \ 0.64235-1.34975I$	$2.69237+6.63075I$	0
$u=-0.580152-1.119200I$ $a=\ \ 1.03851-1.16281I$ $b=\ \ 0.64235+1.34975I$	$2.69237-6.63075I$	0
$u=\ \ 0.219692+1.258350I$ $a=\ \ 0.69073-1.41220I$ $b=-0.56727+1.35496I$	$5.13882+1.56779I$	0
$u=\ \ 0.219692-1.258350I$ $a=\ \ 0.69073+1.41220I$ $b=-0.56727-1.35496I$	$5.13882-1.56779I$	0
$u=-0.394143+1.217230I$ $a=-0.42981-1.84373I$ $b=-0.87948+1.25447I$	$4.36623+5.28259I$	0
$u=-0.394143-1.217230I$ $a=-0.42981+1.84373I$ $b=-0.87948-1.25447I$	$4.36623-5.28259I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 1.148120 + 0.566655I$ $a = -0.046165 - 0.413988I$ $b = -0.64243 + 1.30888I$	$-2.53615 + 13.16840I$	0
$u = \ 1.148120 - 0.566655I$ $a = -0.046165 + 0.413988I$ $b = -0.64243 - 1.30888I$	$-2.53615 - 13.16840I$	0
$u = \ 0.583837 + 1.142450I$ $a = -0.477542 + 0.394803I$ $b = -0.676892 + 0.255110I$	$0.47061 - 8.49310I$	0
$u = \ 0.583837 - 1.142450I$ $a = -0.477542 - 0.394803I$ $b = -0.676892 - 0.255110I$	$0.47061 + 8.49310I$	0
$u = \ 0.031866 + 1.305860I$ $a = -0.28092 + 1.86012I$ $b = -0.257800 - 1.360700I$	$8.53653 - 4.24665I$	0
$u = \ 0.031866 - 1.305860I$ $a = -0.28092 - 1.86012I$ $b = -0.257800 + 1.360700I$	$8.53653 + 4.24665I$	0
$u = \ 0.566610 + 1.177710I$ $a = -1.22282 + 1.44594I$ $b = -0.463230 - 1.217480I$	$5.83587 - 7.72355I$	0
$u = \ 0.566610 - 1.177710I$ $a = -1.22282 - 1.44594I$ $b = -0.463230 + 1.217480I$	$5.83587 + 7.72355I$	0
$u = \ 0.625190 + 0.265196I$ $a = -2.16805 - 0.63872I$ $b = \ 0.130356 + 0.696158I$	$-2.69283 - 2.12824I$	$-10.87511 + 1.79346I$
$u = \ 0.625190 - 0.265196I$ $a = -2.16805 + 0.63872I$ $b = \ 0.130356 - 0.696158I$	$-2.69283 + 2.12824I$	$-10.87511 - 1.79346I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.671514+0.096820I$ $a=\ 1.077210+0.006923I$ $b=\ 0.384614-0.209496I$	$-0.941917-0.128738I$	$-8.86024-1.07665I$
$u=-0.671514-0.096820I$ $a=\ 1.077210-0.006923I$ $b=\ 0.384614+0.209496I$	$-0.941917+0.128738I$	$-8.86024+1.07665I$
$u=-0.273652+0.619851I$ $a=-0.035044+0.803485I$ $b=-0.835564-0.897902I$	$-5.78318+2.01516I$	$-9.15865-7.62858I$
$u=-0.273652-0.619851I$ $a=-0.035044-0.803485I$ $b=-0.835564+0.897902I$	$-5.78318-2.01516I$	$-9.15865+7.62858I$
$u=\ 0.220921+1.303860I$ $a=\ 0.14696-1.78419I$ $b=-0.148798+1.387450I$	$8.17021-1.41350I$	0
$u=\ 0.220921-1.303860I$ $a=\ 0.14696+1.78419I$ $b=-0.148798-1.387450I$	$8.17021+1.41350I$	0
$u=-0.476908+1.242780I$ $a=\ 0.826029+1.009660I$ $b=-0.41478-1.39469I$	$3.75333+3.98207I$	0
$u=-0.476908-1.242780I$ $a=\ 0.826029-1.009660I$ $b=-0.41478+1.39469I$	$3.75333-3.98207I$	0
$u=-0.701739+1.133870I$ $a=-0.310858+0.551653I$ $b=\ 1.41911+0.22157I$	$-4.17318+12.79720I$	0
$u=-0.701739-1.133870I$ $a=-0.310858-0.551653I$ $b=\ 1.41911-0.22157I$	$-4.17318-12.79720I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.366926 + 0.545492I$ $a = -0.100820 - 0.430686I$ $b = -0.787889 + 1.063920I$	$-5.33229 + 6.54252I$	$-9.66566 + 3.71560I$
$u = 0.366926 - 0.545492I$ $a = -0.100820 + 0.430686I$ $b = -0.787889 - 1.063920I$	$-5.33229 - 6.54252I$	$-9.66566 - 3.71560I$
$u = 0.611183 + 1.208950I$ $a = -0.78814 + 1.61215I$ $b = -0.98635 - 1.22650I$	$2.35547 - 10.80480I$	0
$u = 0.611183 - 1.208950I$ $a = -0.78814 - 1.61215I$ $b = -0.98635 + 1.22650I$	$2.35547 + 10.80480I$	0
$u = -0.719427 + 1.172540I$ $a = -1.28956 - 1.17905I$ $b = -0.527424 + 1.183770I$	$3.26481 + 13.23710I$	0
$u = -0.719427 - 1.172540I$ $a = -1.28956 + 1.17905I$ $b = -0.527424 - 1.183770I$	$3.26481 - 13.23710I$	0
$u = -0.64800 + 1.25725I$ $a = 0.78304 + 1.72387I$ $b = 0.64458 - 1.37215I$	$2.3368 + 14.2623I$	0
$u = -0.64800 - 1.25725I$ $a = 0.78304 - 1.72387I$ $b = 0.64458 + 1.37215I$	$2.3368 - 14.2623I$	0
$u = -1.33479 + 0.51134I$ $a = -0.058226 - 0.594925I$ $b = -0.243730 + 0.918437I$	$-1.16480 + 4.56244I$	0
$u = -1.33479 - 0.51134I$ $a = -0.058226 + 0.594925I$ $b = -0.243730 - 0.918437I$	$-1.16480 - 4.56244I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.34576+0.50106I$ $a=\ \ 0.199176+0.790137I$ $b=-0.281301-1.063790I$	$-2.44919-3.44783I$	0
$u=-1.34576-0.50106I$ $a=\ \ 0.199176-0.790137I$ $b=-0.281301+1.063790I$	$-2.44919+3.44783I$	0
$u=\ \ 0.65478+1.28203I$ $a=-0.84445+1.16407I$ $b=-0.295587-0.739823I$	$1.49037-8.72661I$	0
$u=\ \ 0.65478-1.28203I$ $a=-0.84445-1.16407I$ $b=-0.295587+0.739823I$	$1.49037+8.72661I$	0
$u=\ \ 0.77730+1.21528I$ $a=\ \ 0.97429-1.57011I$ $b=\ \ 0.70650+1.38800I$	$-0.4238-20.0703I$	0
$u=\ \ 0.77730-1.21528I$ $a=\ \ 0.97429+1.57011I$ $b=\ \ 0.70650-1.38800I$	$-0.4238+20.0703I$	0
$u=-0.46163+1.37531I$ $a=-0.72219-1.29824I$ $b=-0.124408+0.834699I$	$3.60458+2.74950I$	0
$u=-0.46163-1.37531I$ $a=-0.72219+1.29824I$ $b=-0.124408-0.834699I$	$3.60458-2.74950I$	0
$u=\ \ 0.514356+0.114421I$ $a=-1.13849+7.13373I$ $b=-0.519880+0.508746I$	$-2.79806+3.16139I$	$-17.8778-3.5823I$
$u=\ \ 0.514356-0.114421I$ $a=-1.13849-7.13373I$ $b=-0.519880-0.508746I$	$-2.79806-3.16139I$	$-17.8778+3.5823I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.81157+1.24680I$ $a=\ \ 0.71258+1.47248I$ $b=\ \ 0.379605-1.280520I$	$-0.09625+10.86920I$	0
$u=-0.81157-1.24680I$ $a=\ \ 0.71258-1.47248I$ $b=\ \ 0.379605+1.280520I$	$-0.09625-10.86920I$	0
$u=-0.13934+1.48734I$ $a=-0.11430+1.65125I$ $b=\ \ 0.362579-1.298610I$	$6.11189+9.64087I$	0
$u=-0.13934-1.48734I$ $a=-0.11430-1.65125I$ $b=\ \ 0.362579+1.298610I$	$6.11189-9.64087I$	0
$u=-0.499851$ $a=\ \ 1.00285$ $b=\ \ 0.422372$	-0.842074	-11.5210
$u=-0.08302+1.52870I$ $a=-0.35740-1.49148I$ $b=\ \ 0.244005+1.212190I$	$6.21066-3.22971I$	0
$u=-0.08302-1.52870I$ $a=-0.35740+1.49148I$ $b=\ \ 0.244005-1.212190I$	$6.21066+3.22971I$	0
$u=-0.020109+0.465571I$ $a=\ \ 0.993741-0.012339I$ $b=\ \ 0.599793-0.830820I$	$-0.87309+2.36039I$	$-4.63324-1.20512I$
$u=-0.020109-0.465571I$ $a=\ \ 0.993741+0.012339I$ $b=\ \ 0.599793+0.830820I$	$-0.87309-2.36039I$	$-4.63324+1.20512I$
$u=\ \ 0.74263+1.34378I$ $a=\ \ 0.50632-1.48354I$ $b=\ \ 0.262104+1.224100I$	$2.80976-4.80966I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.74263-1.34378I$		
$a=$	$0.50632+1.48354I$	$2.80976+4.80966I$	0
$b=$	$0.262104-1.224100I$		
$u=$	$0.96071+1.27483I$		
$a=$	$-0.421617+0.761207I$	$-4.60981+1.86353I$	0
$b=$	$0.098347-0.782292I$		
$u=$	$0.96071-1.27483I$		
$a=$	$-0.421617-0.761207I$	$-4.60981-1.86353I$	0
$b=$	$0.098347+0.782292I$		

II.

$\boldsymbol{I_2^u = \langle -1.78\times 10^{10}u^{23}+3.32\times 10^{10}u^{22}+\cdots+1.23\times 10^{11}b+4.10\times 10^{10},\ 6.23\times 10^{11}u^{23}-4.60\times 10^{10}u^{22}+\cdots+1.23\times 10^{11}a+2.10\times 10^{12},\ u^{24}+6u^{22}+\cdots+3u+1\rangle}$

(i) Arc colorings

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

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

$$a_{12} = \begin{pmatrix} -5.04522u^{23}+0.372305u^{22}+\cdots-14.3586u-17.0164 \\ 0.144093u^{23}-0.269090u^{22}+\cdots+0.758652u-0.332464 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1.06367u^{23}-1.88116u^{22}+\cdots+14.0431u-4.29037 \\ 0.135846u^{23}-0.0946331u^{22}+\cdots+1.96665u+0.813872 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -4.15603u^{23}+0.0371191u^{22}+\cdots-11.7454u-14.9491 \\ 0.144093u^{23}-0.269090u^{22}+\cdots+0.758652u-0.332464 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -5.65892u^{23}+1.12042u^{22}+\cdots-16.1925u-15.8827 \\ 0.0216583u^{23}-0.0159152u^{22}+\cdots+2.08303u+0.149058 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -1.15388u^{23}+0.396430u^{22}+\cdots-3.81616u-2.21358 \\ -0.123678u^{23}-0.0283571u^{22}+\cdots+0.0809646u-0.0612439 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -1.29882u^{23}+0.303702u^{22}+\cdots-3.72961u-2.53129 \\ -0.208641u^{23}-0.0459699u^{22}+\cdots+0.590643u-0.286228 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -4.90112u^{23}+0.103216u^{22}+\cdots-13.5999u-17.3489 \\ 0.144093u^{23}-0.269090u^{22}+\cdots+0.758652u-0.332464 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1.03969u^{23}-0.317712u^{22}+\cdots+3.93254u+2.54876 \\ -0.114188u^{23}+0.0787179u^{22}+\cdots+0.116374u+0.335186 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes

$$= -\frac{1467040447468}{123456179965}u^{23}+\frac{455607258203}{123456179965}u^{22}+\cdots-\frac{6992112076971}{123456179965}u-\frac{3837088950818}{123456179965}$$

(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	$u^{24} + 3u^{23} + \cdots + 5u^3 + 1$
c_6	$u^{24} + 3u^{23} + \cdots + 12u^2 + 1$
c_7	$u^{24} + 12u^{22} + \cdots - 3u + 1$
c_8	$u^{24} + 6u^{22} + \cdots + 3u + 1$
c_9	$u^{24} - 3u^{23} + \cdots + 12u^2 + 1$
c_{10}	$u^{24} - 6u^{22} + \cdots - 12u + 1$
c_{11}	$u^{24} + 12u^{22} + \cdots + 3u + 1$
c_{12}	$u^{24} - 5u^{21} + \cdots - 3u + 1$

(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	$y^{24} - 5y^{23} + \cdots - 6y^2 + 1$
c_6, c_9	$y^{24} + 19y^{23} + \cdots + 24y + 1$
c_7, c_{11}	$y^{24} + 24y^{23} + \cdots + 19y + 1$
c_{10}	$y^{24} - 12y^{23} + \cdots - 12y + 1$
c_{12}	$y^{24} - 6y^{22} + \cdots - 5y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.385812+0.959765I$ $a=\ 0.888808-0.037073I$ $b=\ 0.595502+0.631954I$	$-1.33907+0.48887I$	$-9.91527-0.20213I$
$u=-0.385812-0.959765I$ $a=\ 0.888808+0.037073I$ $b=\ 0.595502-0.631954I$	$-1.33907-0.48887I$	$-9.91527+0.20213I$
$u=-1.077360+0.108391I$ $a=-0.075297-0.906894I$ $b=\ 0.334692+0.897697I$	$-1.69057-3.87913I$	$-9.47886+7.35968I$
$u=-1.077360-0.108391I$ $a=-0.075297+0.906894I$ $b=\ 0.334692-0.897697I$	$-1.69057+3.87913I$	$-9.47886-7.35968I$
$u=\ 0.008495+0.868868I$ $a=\ 0.794659-0.583248I$ $b=\ 0.461312-0.571784I$	$-0.33081+3.49000I$	$-8.88183-7.57316I$
$u=\ 0.008495-0.868868I$ $a=\ 0.794659+0.583248I$ $b=\ 0.461312+0.571784I$	$-0.33081-3.49000I$	$-8.88183+7.57316I$
$u=\ 0.743321+0.919032I$ $a=\ 0.077224+0.176295I$ $b=\ 0.161396+0.548115I$	$-4.59064-7.57890I$	$-4.1390+15.0235I$
$u=\ 0.743321-0.919032I$ $a=\ 0.077224-0.176295I$ $b=\ 0.161396-0.548115I$	$-4.59064+7.57890I$	$-4.1390-15.0235I$
$u=-0.122647+1.176190I$ $a=\ 0.57790+1.71442I$ $b=-0.21101-1.58776I$	$5.66713-0.57004I$	$-0.69951+1.76332I$
$u=-0.122647-1.176190I$ $a=\ 0.57790-1.71442I$ $b=-0.21101+1.58776I$	$5.66713+0.57004I$	$-0.69951-1.76332I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.569181+0.581107I$ $a=-0.571641-0.327832I$ $b=\ \ 0.284741-0.656736I$	$-1.37593+3.51457I$	$-7.17387-6.69949I$
$u=-0.569181-0.581107I$ $a=-0.571641+0.327832I$ $b=\ \ 0.284741+0.656736I$	$-1.37593-3.51457I$	$-7.17387+6.69949I$
$u=\ \ 0.449036+1.170250I$ $a=\ \ 0.92955-1.20422I$ $b=-0.16034+1.69292I$	$4.46285-4.61755I$	$-0.52048+4.72657I$
$u=\ \ 0.449036-1.170250I$ $a=\ \ 0.92955+1.20422I$ $b=-0.16034-1.69292I$	$4.46285+4.61755I$	$-0.52048-4.72657I$
$u=\ \ 0.615552+0.171616I$ $a=\ \ 1.21237+3.01743I$ $b=\ \ 0.05347+1.55815I$	$1.50297+0.47371I$	$-3.53428+7.18464I$
$u=\ \ 0.615552-0.171616I$ $a=\ \ 1.21237-3.01743I$ $b=\ \ 0.05347-1.55815I$	$1.50297-0.47371I$	$-3.53428-7.18464I$
$u=\ \ 0.464020+1.310710I$ $a=-0.43654+1.72106I$ $b=-0.434102-1.121700I$	$3.62995-4.17688I$	$-4.23406+3.79944I$
$u=\ \ 0.464020-1.310710I$ $a=-0.43654-1.72106I$ $b=-0.434102+1.121700I$	$3.62995+4.17688I$	$-4.23406-3.79944I$
$u=-0.639779+1.245700I$ $a=-0.79005-1.60305I$ $b=-0.580023+1.066030I$	$1.50968+9.96183I$	$-8.32009-8.52814I$
$u=-0.639779-1.245700I$ $a=-0.79005+1.60305I$ $b=-0.580023-1.066030I$	$1.50968-9.96183I$	$-8.32009+8.52814I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.847108 + 1.119260I$ $a = 0.643038 - 0.601163I$ $b = -0.074936 + 0.774321I$	$-4.43225 + 1.71576I$	$-1.84111 + 5.35701I$
$u = 0.847108 - 1.119260I$ $a = 0.643038 + 0.601163I$ $b = -0.074936 - 0.774321I$	$-4.43225 - 1.71576I$	$-1.84111 - 5.35701I$
$u = -0.332750 + 0.244285I$ $a = -13.7500 - 3.6782I$ $b = -0.430698 + 0.709042I$	$-3.01331 + 2.64864I$	$-17.2617 - 24.3171I$
$u = -0.332750 - 0.244285I$ $a = -13.7500 + 3.6782I$ $b = -0.430698 - 0.709042I$	$-3.01331 - 2.64864I$	$-17.2617 + 24.3171I$

III. $\boldsymbol{I_1^v = \langle a,\ -8.20 \times 10^4 v^8 - 2.03 \times 10^6 v^7 + \cdots + 7.65 \times 10^5 b + 1.55 \times 10^6,\ 7v^9 + 3v^8 + \cdots + v + 1\rangle}$

(i) Arc colorings

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

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} v \\ 0 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0 \\ 0.107257v^8 + 2.65850v^7 + \cdots - 0.280187v - 2.03006 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ -2.14626v^8 + 0.185889v^7 + \cdots - 0.429870v - 1.30771 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 2.14626v^8 - 0.185889v^7 + \cdots + 0.429870v + 2.30771 \\ 7.44747v^8 + 5.03558v^7 + \cdots - 3.40173v + 1.94867 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -5.30121v^8 - 5.22147v^7 + \cdots + 3.83160v + 0.359036 \\ -4.28776v^8 - 5.68587v^7 + \cdots + 4.90646v + 0.176565 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 8.01346v^8 + 2.53560v^7 + \cdots - 6.92515v + 0.817529 \\ 7v^8 + 3v^7 + 2v^6 - 14v^5 - 23v^4 + 33v^3 - v^2 - 8v + 1 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 8.01346v^8 + 2.53560v^7 + \cdots - 5.92515v + 0.817529 \\ 7v^8 + 3v^7 + 2v^6 - 14v^5 - 23v^4 + 33v^3 - v^2 - 8v + 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.107257v^8 + 2.65850v^7 + \cdots - 0.280187v - 2.03006 \\ 0.107257v^8 + 2.65850v^7 + \cdots - 0.280187v - 2.03006 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -8.01346v^8 - 2.53560v^7 + \cdots + 6.92515v - 0.817529 \\ -7v^8 - 3v^7 - 2v^6 + 14v^5 + 23v^4 - 33v^3 + v^2 + 8v - 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{17698695}{764761}v^8 - \frac{786460}{764761}v^7 + \frac{4755547}{764761}v^6 - \frac{34014228}{764761}v^5 - \frac{35615785}{764761}v^4 + \frac{111023508}{764761}v^3 - \frac{50152809}{764761}v^2 - \frac{10570795}{764761}v - \frac{324941}{764761}$

(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, c_{10}	$u^9+u^8-2u^7-3u^6+u^5+3u^4+2u^3-u-1$
c_6	$u^9+3u^8+8u^7+13u^6+17u^5+17u^4+12u^3+6u^2+u-1$
c_7	$u^9+u^8+2u^7+u^6+3u^5+u^4+2u^3+u-1$
c_9	$u^9-3u^8+8u^7-13u^6+17u^5-17u^4+12u^3-6u^2+u+1$
c_{11}	$u^9-u^8+2u^7-u^6+3u^5-u^4+2u^3+u+1$
c_{12}	$u^9+5u^8+12u^7+15u^6+9u^5-u^4-4u^3-2u^2+u+1$

(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}	$y^9 - 5y^8 + 12y^7 - 15y^6 + 9y^5 + y^4 - 4y^3 + 2y^2 + y - 1$
c_6, c_9	$y^9 + 7y^8 + 20y^7 + 25y^6 + 5y^5 - 15y^4 + 22y^2 + 13y - 1$
c_7, c_{11}	$y^9 + 3y^8 + 8y^7 + 13y^6 + 17y^5 + 17y^4 + 12y^3 + 6y^2 + y - 1$
c_{12}	$y^9 - y^8 + 12y^7 - 7y^6 + 37y^5 + y^4 - 10y^2 + 5y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$v = 0.903964 + 0.094390I$ $a = 0$ $b = 0.140343 + 0.966856I$	$0.13850 - 2.09337I$	$-5.49232 + 4.08340I$
$v = 0.903964 - 0.094390I$ $a = 0$ $b = 0.140343 - 0.966856I$	$0.13850 + 2.09337I$	$-5.49232 - 4.08340I$
$v = -1.42091$ $a = 0$ $b = 0.512358$	-2.84338	-14.1380
$v = 0.476406 + 0.294981I$ $a = 0$ $b = -0.796005 + 0.733148I$	$-6.01628 - 1.33617I$	$-13.72452 - 1.86826I$
$v = 0.476406 - 0.294981I$ $a = 0$ $b = -0.796005 - 0.733148I$	$-6.01628 + 1.33617I$	$-13.72452 + 1.86826I$
$v = -0.352455 + 0.113243I$ $a = 0$ $b = -0.728966 - 0.986295I$	$-5.24306 - 7.08493I$	$-7.53426 + 10.08360I$
$v = -0.352455 - 0.113243I$ $a = 0$ $b = -0.728966 + 0.986295I$	$-5.24306 + 7.08493I$	$-7.53426 - 10.08360I$
$v = -0.53175 + 1.59553I$ $a = 0$ $b = 0.628449 + 0.875112I$	$-2.26187 - 2.45442I$	$-12.87375 + 1.42824I$
$v = -0.53175 - 1.59553I$ $a = 0$ $b = 0.628449 - 0.875112I$	$-2.26187 + 2.45442I$	$-12.87375 - 1.42824I$

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	$(u^9+u^8+\cdots-u-1)(u^{24}+3u^{23}+\cdots+5u^3+1)$ $\cdot(u^{153}-u^{152}+\cdots+118105u+15199)$
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	$(u^9+u^8+\cdots+u-1)(u^{24}+12u^{22}+\cdots-3u+1)$ $\cdot(u^{153}+2u^{152}+\cdots+1528u+649)$
c_8	$u^9(u^{24}+6u^{22}+\cdots+3u+1)(u^{153}-u^{152}+\cdots-100352u+25088)$
c_9	$(u^9-3u^8+8u^7-13u^6+17u^5-17u^4+12u^3-6u^2+u+1)$ $\cdot(u^{24}-3u^{23}+\cdots+12u^2+1)(u^{153}+3u^{152}+\cdots+50071u+3559)$
c_{10}	$(u^9+u^8-2u^7-3u^6+u^5+3u^4+2u^3-u-1)$ $\cdot(u^{24}-6u^{22}+\cdots-12u+1)(u^{153}-20u^{152}+\cdots+18213u+14027)$
c_{11}	$(u^9-u^8+\cdots+u+1)(u^{24}+12u^{22}+\cdots+3u+1)$ $\cdot(u^{153}+2u^{152}+\cdots+1528u+649)$
c_{12}	$(u^9+5u^8+12u^7+15u^6+9u^5-u^4-4u^3-2u^2+u+1)$ $\cdot(u^{24}-5u^{21}+\cdots-3u+1)(u^{153}-10u^{152}+\cdots+14u+17)$

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	$(y^9-5y^8+12y^7-15y^6+9y^5+y^4-4y^3+2y^2+y-1)$ $\cdot(y^{24}-5y^{23}+\cdots-6y^2+1)$ $\cdot(y^{153}+3y^{152}+\cdots-3235076783y-231009601)$
c_6, c_9	$(y^9+7y^8+20y^7+25y^6+5y^5-15y^4+22y^2+13y-1)$ $\cdot(y^{24}+19y^{23}+\cdots+24y+1)$ $\cdot(y^{153}+99y^{152}+\cdots-548780483y-12666481)$
c_7, c_{11}	$(y^9+3y^8+8y^7+13y^6+17y^5+17y^4+12y^3+6y^2+y-1)$ $\cdot(y^{24}+24y^{23}+\cdots+19y+1)$ $\cdot(y^{153}+96y^{152}+\cdots-17206606y-421201)$
c_{10}	$(y^9-5y^8+12y^7-15y^6+9y^5+y^4-4y^3+2y^2+y-1)$ $\cdot(y^{24}-12y^{23}+\cdots-12y+1)$ $\cdot(y^{153}-40y^{152}+\cdots+18060550885y-196756729)$
c_{12}	$(y^9-y^8+12y^7-7y^6+37y^5+y^4-10y^2+5y-1)$ $\cdot(y^{24}-6y^{22}+\cdots-5y+1)(y^{153}-8y^{152}+\cdots-9698y-289)$