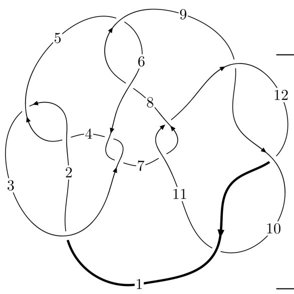
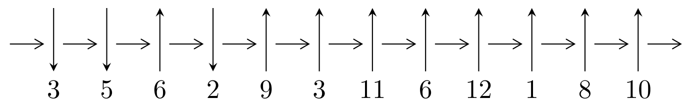
$12n_{0090}$ ($K12n_{0090}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & 9.96682 \times 10^{157} u^{51} + 6.43522 \times 10^{157} u^{50} + \cdots + 4.80775 \times 10^{159} b - 2.81921 \times 10^{161}, \\
& -8.50264 \times 10^{159} u^{51} - 4.59905 \times 10^{160} u^{50} + \cdots + 4.80775 \times 10^{159} a - 2.25629 \times 10^{162}, \\
& u^{52} + 6u^{51} + \cdots - 384u + 256 \rangle \\
I_2^u = \langle & -u^5 + 2u^3 + u^2 + b - 2u - 1,\ -u^5 - 2u^4 + u^3 + 3u^2 + a - 2,\ u^6 + u^5 - u^4 - 2u^3 + u + 1 \rangle
\end{aligned}$$

$$\begin{aligned}
I_1^v = \langle & a,\ -435v^7 + 1730v^6 + 9811v^5 + 13983v^4 + 4411v^3 - 5372v^2 + 287b - 4318v - 1024, \\
& v^8 - 4v^7 - 22v^6 - 34v^5 - 17v^4 + 6v^3 + 11v^2 + 5v + 1 \rangle
\end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 66 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. $I_1^u = \langle 9.97 \times 10^{157} u^{51} + 6.44 \times 10^{157} u^{50} + \cdots + 4.81 \times 10^{159} b - 2.82 \times 10^{161},\ -8.50 \times 10^{159} u^{51} - 4.60 \times 10^{160} u^{50} + \cdots + 4.81 \times 10^{159} a - 2.26 \times 10^{162},\ u^{52} + 6u^{51} + \cdots - 384u + 256 \rangle$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1.76853u^{51} + 9.56590u^{50} + \cdots - 2926.51u + 469.302 \\ -0.0207307u^{51} - 0.0133851u^{50} + \cdots - 241.958u + 58.6388 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1.11147u^{51} + 6.04469u^{50} + \cdots - 1943.07u + 322.353 \\ 1.41662u^{51} + 7.57791u^{50} + \cdots - 1710.65u + 565.183 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 2.52808u^{51} + 13.6226u^{50} + \cdots - 3653.72u + 887.535 \\ 1.41662u^{51} + 7.57791u^{50} + \cdots - 1710.65u + 565.183 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 2.24827u^{51} + 12.0747u^{50} + \cdots - 3114.80u + 728.310 \\ 2.81685u^{51} + 15.1244u^{50} + \cdots - 3490.75u + 1142.79 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -0.522374u^{51} - 2.76840u^{50} + \cdots + 479.530u - 230.084 \\ -1.17566u^{51} - 6.25747u^{50} + \cdots + 1309.09u - 442.421 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -0.653284u^{51} - 3.48907u^{50} + \cdots + 829.556u - 212.337 \\ -1.17566u^{51} - 6.25747u^{50} + \cdots + 1309.09u - 442.421 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -0.653284u^{51} - 3.48907u^{50} + \cdots + 829.556u - 212.337 \\ -0.883950u^{51} - 4.70152u^{50} + \cdots + 976.480u - 332.178 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 2.40012u^{51} + 12.9314u^{50} + \cdots - 3603.52u + 730.563 \\ 1.81072u^{51} + 9.76249u^{50} + \cdots - 2349.30u + 761.984 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 3.23763u^{51} + 16.6512u^{50} + \cdots - 115.091u + 1897.90$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{52} + 14u^{51} + \cdots + 1402u + 1$
c_2, c_4	$u^{52} - 10u^{51} + \cdots - 42u + 1$
c_3, c_6	$u^{52} + 6u^{51} + \cdots - 384u + 256$
c_5, c_8	$u^{52} + 3u^{51} + \cdots + 2u + 1$
c_7, c_{11}	$u^{52} - 2u^{51} + \cdots - 192u + 64$
c_9, c_{10}, c_{12}	$u^{52} + 8u^{51} + \cdots + 5u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{52} + 58y^{51} + \cdots - 1883250y + 1$
c_2, c_4	$y^{52} - 14y^{51} + \cdots - 1402y + 1$
c_3, c_6	$y^{52} - 54y^{51} + \cdots - 6144000y + 65536$
c_5, c_8	$y^{52} + 11y^{51} + \cdots - 2y + 1$
c_7, c_{11}	$y^{52} - 42y^{51} + \cdots + 4096y + 4096$
c_9, c_{10}, c_{12}	$y^{52} - 56y^{51} + \cdots - 11y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.894300 + 0.467621I$ $a = 1.21589 + 0.98600I$ $b = -0.940205 + 0.671189I$	$-2.35126 + 1.18530I$	0
$u = -0.894300 - 0.467621I$ $a = 1.21589 - 0.98600I$ $b = -0.940205 - 0.671189I$	$-2.35126 - 1.18530I$	0
$u = -0.077034 + 0.976513I$ $a = -0.541763 + 0.843119I$ $b = 0.924664 + 0.513211I$	$8.16733 - 1.74753I$	0
$u = -0.077034 - 0.976513I$ $a = -0.541763 - 0.843119I$ $b = 0.924664 - 0.513211I$	$8.16733 + 1.74753I$	0
$u = 0.311772 + 0.824230I$ $a = -0.61198 - 1.93647I$ $b = -1.362440 - 0.024471I$	$2.07038 + 1.52953I$	$6.00000 - 4.40429I$
$u = 0.311772 - 0.824230I$ $a = -0.61198 + 1.93647I$ $b = -1.362440 + 0.024471I$	$2.07038 - 1.52953I$	$6.00000 + 4.40429I$
$u = -0.349211 + 0.778404I$ $a = 0.893037 + 0.518298I$ $b = 0.299421 + 0.403800I$	$-1.82480 + 1.05655I$	$-2.50386 - 1.55405I$
$u = -0.349211 - 0.778404I$ $a = 0.893037 - 0.518298I$ $b = 0.299421 - 0.403800I$	$-1.82480 - 1.05655I$	$-2.50386 + 1.55405I$
$u = 0.212493 + 1.195980I$ $a = 0.789348 + 0.054066I$ $b = 2.03489 - 0.17085I$	$0.23912 + 3.31860I$	0
$u = 0.212493 - 1.195980I$ $a = 0.789348 - 0.054066I$ $b = 2.03489 + 0.17085I$	$0.23912 - 3.31860I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.197920 + 0.212460I$ $a = 0.1235270 + 0.0251718I$ $b = -0.208678 - 0.717859I$	$2.51889 + 0.64898I$	0
$u = 1.197920 - 0.212460I$ $a = 0.1235270 - 0.0251718I$ $b = -0.208678 + 0.717859I$	$2.51889 - 0.64898I$	0
$u = 0.742980$ $a = 4.08088$ $b = -0.756924$	6.40671	22.8380
$u = -0.678225 + 0.259653I$ $a = -0.219400 - 0.219932I$ $b = -0.735304 + 0.665653I$	$0.98837 - 7.05447I$	$10.8678 + 11.9178I$
$u = -0.678225 - 0.259653I$ $a = -0.219400 + 0.219932I$ $b = -0.735304 - 0.665653I$	$0.98837 + 7.05447I$	$10.8678 - 11.9178I$
$u = -1.185680 + 0.489419I$ $a = -0.0714715 + 0.0415507I$ $b = 0.018026 + 0.520754I$	$1.02907 - 5.96168I$	0
$u = -1.185680 - 0.489419I$ $a = -0.0714715 - 0.0415507I$ $b = 0.018026 - 0.520754I$	$1.02907 + 5.96168I$	0
$u = -0.661772 + 0.025420I$ $a = 0.573044 + 0.203692I$ $b = 0.601130 - 0.866198I$	$-3.01505 - 2.93991I$	$8.02854 + 4.94099I$
$u = -0.661772 - 0.025420I$ $a = 0.573044 - 0.203692I$ $b = 0.601130 + 0.866198I$	$-3.01505 + 2.93991I$	$8.02854 - 4.94099I$
$u = -0.608562 + 0.052862I$ $a = -1.204570 - 0.413046I$ $b = -0.295631 + 0.903933I$	$0.61020 + 1.37415I$	$10.26914 - 1.41740I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.608562-0.052862I$ $a=-1.204570+0.413046I$ $b=-0.295631-0.903933I$	$0.61020-1.37415I$	$10.26914+1.41740I$
$u=\ 0.603802$ $a=-0.298164$ $b=\ 1.06305$	5.57235	20.0660
$u=\ 0.032656+0.593010I$ $a=-0.36952-1.62271I$ $b=-0.996072-0.539949I$	$0.524938-0.113527I$	$8.64384+0.42173I$
$u=\ 0.032656-0.593010I$ $a=-0.36952+1.62271I$ $b=-0.996072+0.539949I$	$0.524938+0.113527I$	$8.64384-0.42173I$
$u=-0.403944+0.310632I$ $a=-7.08832-3.53754I$ $b=\ 1.05119-1.20630I$	$-0.279878+0.575640I$	$9.6300+22.9731I$
$u=-0.403944-0.310632I$ $a=-7.08832+3.53754I$ $b=\ 1.05119+1.20630I$	$-0.279878-0.575640I$	$9.6300-22.9731I$
$u=\ 1.63347+0.20317I$ $a=-1.33849+0.48910I$ $b=\ 2.46513-0.73973I$	$6.81089+3.11557I$	0
$u=\ 1.63347-0.20317I$ $a=-1.33849-0.48910I$ $b=\ 2.46513+0.73973I$	$6.81089-3.11557I$	0
$u=-1.61892+0.31042I$ $a=-1.45018-0.02409I$ $b=\ 2.18977-1.46329I$	$6.62010-3.75962I$	0
$u=-1.61892-0.31042I$ $a=-1.45018+0.02409I$ $b=\ 2.18977+1.46329I$	$6.62010+3.75962I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.60931 + 0.54791I$ $a = 1.042880 - 0.658926I$ $b = -2.04032 + 0.38768I$	$13.6500 + 7.8231I$	0
$u = 1.60931 - 0.54791I$ $a = 1.042880 + 0.658926I$ $b = -2.04032 - 0.38768I$	$13.6500 - 7.8231I$	0
$u = -1.70298 + 0.07577I$ $a = 1.201980 + 0.256516I$ $b = -1.81377 - 1.00382I$	$14.7382 - 0.7846I$	0
$u = -1.70298 - 0.07577I$ $a = 1.201980 - 0.256516I$ $b = -1.81377 + 1.00382I$	$14.7382 + 0.7846I$	0
$u = -1.67977 + 0.44939I$ $a = 0.0708644 - 0.1108210I$ $b = -0.179650 - 1.147460I$	$8.63174 - 7.01563I$	0
$u = -1.67977 - 0.44939I$ $a = 0.0708644 + 0.1108210I$ $b = -0.179650 + 1.147460I$	$8.63174 + 7.01563I$	0
$u = -1.64583 + 0.58571I$ $a = 1.39373 + 0.38788I$ $b = -2.58601 + 1.40311I$	$6.05959 - 10.09710I$	0
$u = -1.64583 - 0.58571I$ $a = 1.39373 - 0.38788I$ $b = -2.58601 - 1.40311I$	$6.05959 + 10.09710I$	0
$u = 1.75625 + 0.06042I$ $a = -0.147310 + 0.027996I$ $b = 0.59079 - 1.50355I$	$9.30042 + 0.19617I$	0
$u = 1.75625 - 0.06042I$ $a = -0.147310 - 0.027996I$ $b = 0.59079 + 1.50355I$	$9.30042 - 0.19617I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.77632 + 0.13695I$ $a = 1.402470 + 0.047674I$ $b = -2.98413 - 0.73221I$	$7.28875 + 2.86108I$	0
$u = 1.77632 - 0.13695I$ $a = 1.402470 - 0.047674I$ $b = -2.98413 + 0.73221I$	$7.28875 - 2.86108I$	0
$u = 0.164240$ $a = 2.46011$ $b = -0.653644$	0.823260	12.0980
$u = 0.155157$ $a = -45.9491$ $b = 0.488931$	-0.760272	181.970
$u = -1.72375 + 0.82810I$ $a = -1.145390 - 0.563607I$ $b = 2.67815 - 1.22216I$	$13.0011 - 15.0944I$	0
$u = -1.72375 - 0.82810I$ $a = -1.145390 + 0.563607I$ $b = 2.67815 + 1.22216I$	$13.0011 + 15.0944I$	0
$u = -1.62576 + 1.11014I$ $a = -0.700530 - 0.381882I$ $b = 0.99337 - 2.09354I$	$3.67025 + 2.14792I$	0
$u = -1.62576 - 1.11014I$ $a = -0.700530 + 0.381882I$ $b = 0.99337 + 2.09354I$	$3.67025 - 2.14792I$	0
$u = 0.38941 + 1.93312I$ $a = -0.392879 + 0.204474I$ $b = -2.57270 + 1.01210I$	$7.15465 + 5.75608I$	0
$u = 0.38941 - 1.93312I$ $a = -0.392879 - 0.204474I$ $b = -2.57270 - 1.01210I$	$7.15465 - 5.75608I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 2.10305 + 0.45567I$ $a = -1.071810 + 0.220002I$ $b = 3.29768 + 0.55847I$	$15.0358 + 7.1240I$	0
$u = 2.10305 - 0.45567I$ $a = -1.071810 - 0.220002I$ $b = 3.29768 - 0.55847I$	$15.0358 - 7.1240I$	0

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

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u^5+2u^4-u^3-3u^2+2 \\ u^5-2u^3-u^2+2u+1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^2+1 \\ -u^2 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u^5+2u^4-u^3-3u^2+2 \\ u^5-2u^3-u^2+2u+1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^4-u^2+1 \\ u^4 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^2-1 \\ u^4 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^2-1 \\ u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^5+2u^4-u^3-4u^2+3 \\ u^5-2u^3-2u^2+2u+1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -3u^5-7u^4+4u^3+11u^2+4$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.002190 + 0.295542I$ $a = -0.344968 + 0.764807I$ $b = 0.769407 - 0.497010I$	$3.53554 + 0.92430I$	$13.12292 - 1.33143I$
$u = 1.002190 - 0.295542I$ $a = -0.344968 - 0.764807I$ $b = 0.769407 + 0.497010I$	$3.53554 - 0.92430I$	$13.12292 + 1.33143I$
$u = -0.428243 + 0.664531I$ $a = 1.68613 + 1.92635I$ $b = -0.66103 + 1.45708I$	$-0.245672 + 0.924305I$	$5.17126 - 7.13914I$
$u = -0.428243 - 0.664531I$ $a = 1.68613 - 1.92635I$ $b = -0.66103 - 1.45708I$	$-0.245672 - 0.924305I$	$5.17126 + 7.13914I$
$u = -1.073950 + 0.558752I$ $a = 0.158836 - 0.437639I$ $b = 0.391622 + 0.558752I$	$1.64493 - 5.69302I$	$11.70582 + 2.69056I$
$u = -1.073950 - 0.558752I$ $a = 0.158836 + 0.437639I$ $b = 0.391622 - 0.558752I$	$1.64493 + 5.69302I$	$11.70582 - 2.69056I$

III. $\boldsymbol{I_1^v = \langle a,\ -435v^7 + 1730v^6 + \cdots + 287b - 1024,\ v^8 - 4v^7 + \cdots + 5v + 1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} v \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ 1.51568v^7 - 6.02787v^6 + \cdots + 15.0453v + 3.56794 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ 1.95470v^7 - 8.80836v^6 + \cdots + 14.3136v + 3.47038 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1.95470v^7 - 8.80836v^6 + \cdots + 14.3136v + 4.47038 \\ 1.95470v^7 - 8.80836v^6 + \cdots + 14.3136v + 3.47038 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 1.51568v^7 - 6.02787v^6 + \cdots + 15.0453v + 3.56794 \\ 2.67247v^7 - 12.3066v^6 + \cdots + 11.4983v + 1.24739 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0.954704v^7 - 4.80836v^6 + \cdots + 3.31359v - 0.529617 \\ -v^7 + 4v^6 + 22v^5 + 34v^4 + 17v^3 - 6v^2 - 11v - 5 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -0.954704v^7 + 4.80836v^6 + \cdots - 2.31359v + 0.529617 \\ v^7 - 4v^6 - 22v^5 - 34v^4 - 17v^3 + 6v^2 + 11v + 5 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -0.954704v^7 + 4.80836v^6 + \cdots - 3.31359v + 0.529617 \\ v^7 - 4v^6 - 22v^5 - 34v^4 - 17v^3 + 6v^2 + 11v + 5 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} v \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -0.560976v^7 + 2.21951v^6 + \cdots - 5.73171v - 0.0975610 \\ -0.0313589v^7 + 1.05575v^6 + \cdots + 8.90941v + 4.86411 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= -\frac{1471}{287}v^7 + \frac{6091}{287}v^6 + \frac{31994}{287}v^5 + \frac{42984}{287}v^4 + \frac{10893}{287}v^3 - \frac{16572}{287}v^2 - \frac{10723}{287}v - \frac{1304}{287}$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4	$(y-1)^8$
c_3, c_6	y^8
c_5, c_8	$y^8+5y^7+11y^6+6y^5-17y^4-34y^3-22y^2-4y+1$
c_7, c_{11}	$y^8-3y^7+7y^6-10y^5+11y^4-10y^3+6y^2-4y+1$
c_9, c_{10}, c_{12}	$y^8-7y^7+19y^6-22y^5+3y^4+14y^3-6y^2-4y+1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$v = -0.637416 + 0.344390I$ $a = 0$ $b = 0.855237 - 0.665892I$	$-3.80435 - 2.57849I$	$-1.05479 + 2.41352I$
$v = -0.637416 - 0.344390I$ $a = 0$ $b = 0.855237 + 0.665892I$	$-3.80435 + 2.57849I$	$-1.05479 - 2.41352I$
$v = 0.687555$ $a = 0$ $b = 1.09818$	4.85780	7.27590
$v = -1.194470 + 0.635084I$ $a = 0$ $b = -0.570868 - 0.730671I$	$-0.604279 - 1.131230I$	$2.08624 + 1.57496I$
$v = -1.194470 - 0.635084I$ $a = 0$ $b = -0.570868 + 0.730671I$	$-0.604279 + 1.131230I$	$2.08624 - 1.57496I$
$v = -0.286111 + 0.344558I$ $a = 0$ $b = -1.031810 + 0.655470I$	$0.73474 - 6.44354I$	$6.38151 + 0.59069I$
$v = -0.286111 - 0.344558I$ $a = 0$ $b = -1.031810 - 0.655470I$	$0.73474 + 6.44354I$	$6.38151 - 0.59069I$
$v = 7.54843$ $a = 0$ $b = -0.603304$	-0.799899	-49.1020

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u-1)^8(u^6-3u^5+5u^4-4u^3+2u^2-u+1)$ $\cdot(u^{52}+14u^{51}+\cdots+1402u+1)$
c_2	$((u-1)^8)(u^6+u^5+\cdots+u+1)(u^{52}-10u^{51}+\cdots-42u+1)$
c_3	$u^8(u^6-u^5+\cdots-u+1)(u^{52}+6u^{51}+\cdots-384u+256)$
c_4	$((u+1)^8)(u^6-u^5+\cdots-u+1)(u^{52}-10u^{51}+\cdots-42u+1)$
c_5	$(u^6+3u^5+5u^4+4u^3+2u^2+u+1)$ $\cdot(u^8+3u^7+7u^6+10u^5+11u^4+10u^3+6u^2+4u+1)$ $\cdot(u^{52}+3u^{51}+\cdots+2u+1)$
c_6	$u^8(u^6+u^5+\cdots+u+1)(u^{52}+6u^{51}+\cdots-384u+256)$
c_7	$u^6(u^8+u^7+\cdots-2u-1)(u^{52}-2u^{51}+\cdots-192u+64)$
c_8	$(u^6-3u^5+5u^4-4u^3+2u^2-u+1)$ $\cdot(u^8-3u^7+7u^6-10u^5+11u^4-10u^3+6u^2-4u+1)$ $\cdot(u^{52}+3u^{51}+\cdots+2u+1)$
c_9, c_{10}	$((u+1)^6)(u^8-u^7+\cdots-2u-1)(u^{52}+8u^{51}+\cdots+5u+1)$
c_{11}	$u^6(u^8-u^7+\cdots+2u-1)(u^{52}-2u^{51}+\cdots-192u+64)$
c_{12}	$((u-1)^6)(u^8+u^7+\cdots+2u-1)(u^{52}+8u^{51}+\cdots+5u+1)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y-1)^8(y^6+y^5+5y^4+6y^2+3y+1)$ $\cdot(y^{52}+58y^{51}+\cdots-1883250y+1)$
c_2, c_4	$(y-1)^8(y^6-3y^5+5y^4-4y^3+2y^2-y+1)$ $\cdot(y^{52}-14y^{51}+\cdots-1402y+1)$
c_3, c_6	$y^8(y^6-3y^5+5y^4-4y^3+2y^2-y+1)$ $\cdot(y^{52}-54y^{51}+\cdots-6144000y+65536)$
c_5, c_8	$(y^6+y^5+5y^4+6y^2+3y+1)$ $\cdot(y^8+5y^7+11y^6+6y^5-17y^4-34y^3-22y^2-4y+1)$ $\cdot(y^{52}+11y^{51}+\cdots-2y+1)$
c_7, c_{11}	$y^6(y^8-3y^7+7y^6-10y^5+11y^4-10y^3+6y^2-4y+1)$ $\cdot(y^{52}-42y^{51}+\cdots+4096y+4096)$
c_9, c_{10}, c_{12}	$(y-1)^6(y^8-7y^7+19y^6-22y^5+3y^4+14y^3-6y^2-4y+1)$ $\cdot(y^{52}-56y^{51}+\cdots-11y+1)$