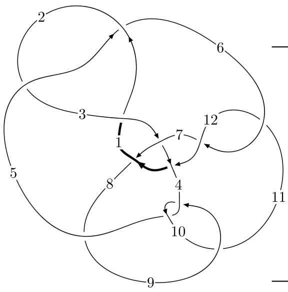
$12n_{0400}$ ($K12n_{0400}$)



A knot diagram[1]

Linearized knot diagam

$\longrightarrow$	$\downarrow$	$\longrightarrow$	$\uparrow$	$\longrightarrow$	$\downarrow$	$\longrightarrow$	$\uparrow$	$\longrightarrow$	$\uparrow$	$\longrightarrow$	$\uparrow$	$\longrightarrow$	$\downarrow$	$\longrightarrow$	$\downarrow$	$\longrightarrow$	$\uparrow$	$\longrightarrow$	$\uparrow$	$\longrightarrow$	$\uparrow$	$\longrightarrow$	$\uparrow$	$\longrightarrow$
	3		5		7		10		2		12		1		5		4		9		6		4	

Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & 8.20503 \times 10^{120} u^{66} - 4.37537 \times 10^{120} u^{65} + \cdots + 4.05645 \times 10^{120} b + 2.44731 \times 10^{122}, \\
& -2.09871 \times 10^{122} u^{66} + 3.37585 \times 10^{122} u^{65} + \cdots + 1.09524 \times 10^{122} a + 8.19876 \times 10^{123}, \\
& u^{67} - u^{66} + \cdots - 36u + 27 \rangle \\
I_2^u = \langle & -162u^{19} - 529u^{18} + \cdots + 67b - 916,\ -569u^{19} + 427u^{18} + \cdots + 67a + 270, \\
& u^{20} + 6u^{18} + \cdots + 9u^2 + 1 \rangle
\end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 87 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. $\boldsymbol{I_1^u = \langle 8.21 \times 10^{120} u^{66} - 4.38 \times 10^{120} u^{65} + \cdots + 4.06 \times 10^{120} b + 2.45 \times 10^{122},\ -2.10 \times 10^{122} u^{66} + 3.38 \times 10^{122} u^{65} + \cdots + 1.10 \times 10^{122} a + 8.20 \times 10^{123},\ u^{67} - u^{66} + \cdots - 36u + 27\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1.91621u^{66} - 3.08229u^{65} + \cdots + 218.618u - 74.8581 \\ -2.02271u^{66} + 1.07862u^{65} + \cdots - 11.8138u - 60.3314 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 2.42380u^{66} - 3.06485u^{65} + \cdots + 134.055u - 39.4259 \\ 0.382036u^{66} - 0.247634u^{65} + \cdots + 12.7110u + 12.3558 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1.16559u^{66} - 0.322858u^{65} + \cdots + 43.2405u + 26.4451 \\ -0.679935u^{66} + 1.62318u^{65} + \cdots - 157.928u + 68.3586 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0.485654u^{66} + 1.30032u^{65} + \cdots - 114.687u + 94.8037 \\ -0.679935u^{66} + 1.62318u^{65} + \cdots - 157.928u + 68.3586 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 2.96238u^{66} - 2.76939u^{65} + \cdots + 136.716u + 16.9575 \\ -2.60117u^{66} + 1.16210u^{65} + \cdots + 8.86605u - 97.0263 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0.246704u^{66} + 0.254410u^{65} + \cdots - 47.6286u + 20.0839 \\ 1.49519u^{66} - 4.45234u^{65} + \cdots + 359.216u - 165.126 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 7.22609u^{66} - 7.67941u^{65} + \cdots + 408.413u - 6.27588 \\ 2.34500u^{66} - 1.98279u^{65} + \cdots + 82.0421u + 45.1621 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0.806636u^{66} - 0.800130u^{65} + \cdots + 94.4230u - 21.7763 \\ -0.623210u^{66} + 2.28266u^{65} + \cdots - 230.655u + 116.404 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 3.29459u^{66} - 3.09314u^{65} + \cdots + 140.386u + 20.3916 \\ -3.12335u^{66} + 2.48303u^{65} + \cdots - 105.141u - 65.0291 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -5.74045u^{66} + 2.90861u^{65} + \cdots + 127.771u - 271.376$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{67} + 42u^{66} + \cdots - 24651u - 1849$
c_2, c_5	$u^{67} + 21u^{65} + \cdots + 17u - 43$
c_3	$u^{67} + u^{66} + \cdots - 36u - 27$
c_4, c_9	$u^{67} + u^{66} + \cdots - 20u - 19$
c_6, c_{11}	$u^{67} - u^{66} + \cdots - 20u - 1$
c_7	$u^{67} - 7u^{66} + \cdots + 1902976u - 712609$
c_8	$u^{67} + 6u^{66} + \cdots + 57128562u - 63140553$
c_{10}	$u^{67} - 19u^{66} + \cdots + 5796u - 361$
c_{12}	$u^{67} + 10u^{66} + \cdots + 65390u + 26317$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{67} - 22y^{66} + \cdots + 45805077y - 3418801$
c_2, c_5	$y^{67} + 42y^{66} + \cdots - 24651y - 1849$
c_3	$y^{67} + 23y^{66} + \cdots - 28350y - 729$
c_4, c_9	$y^{67} - 19y^{66} + \cdots + 5796y - 361$
c_6, c_{11}	$y^{67} - 15y^{66} + \cdots + 72y - 1$
c_7	$y^{67} - 23y^{66} + \cdots - 3886211988072y - 507811586881$
c_8	$y^{67} - 134y^{66} + \cdots + 205611754284956160y - 3986729433145809$
c_{10}	$y^{67} + 69y^{66} + \cdots - 1190900y - 130321$
c_{12}	$y^{67} + 14y^{66} + \cdots + 48815900848y - 692584489$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.020734 + 0.989112I$ $a = -2.11448 + 0.88607I$ $b = 1.102020 + 0.046986I$	$-2.56036 - 3.61015I$	$4.00000 + 4.59333I$
$u = 0.020734 - 0.989112I$ $a = -2.11448 - 0.88607I$ $b = 1.102020 - 0.046986I$	$-2.56036 + 3.61015I$	$4.00000 - 4.59333I$
$u = -0.397079 + 0.880420I$ $a = -0.383090 - 0.299480I$ $b = -0.722114 + 0.962145I$	$1.65706 - 1.20024I$	$8.71578 + 3.20813I$
$u = -0.397079 - 0.880420I$ $a = -0.383090 + 0.299480I$ $b = -0.722114 - 0.962145I$	$1.65706 + 1.20024I$	$8.71578 - 3.20813I$
$u = -0.560483 + 0.777160I$ $a = 0.828568 + 0.311770I$ $b = 0.257750 + 0.242820I$	$-4.00761 + 2.23459I$	$-3.32429 - 2.42501I$
$u = -0.560483 - 0.777160I$ $a = 0.828568 - 0.311770I$ $b = 0.257750 - 0.242820I$	$-4.00761 - 2.23459I$	$-3.32429 + 2.42501I$
$u = 0.285894 + 0.913597I$ $a = -0.003075 - 0.408224I$ $b = 0.173603 + 0.837678I$	$0.58721 - 1.40356I$	$4.00000 + 4.86091I$
$u = 0.285894 - 0.913597I$ $a = -0.003075 + 0.408224I$ $b = 0.173603 - 0.837678I$	$0.58721 + 1.40356I$	$4.00000 - 4.86091I$
$u = 0.569468 + 0.913130I$ $a = -0.88485 - 1.73481I$ $b = 1.71439 + 0.31076I$	$1.09519 - 1.96755I$	0
$u = 0.569468 - 0.913130I$ $a = -0.88485 + 1.73481I$ $b = 1.71439 - 0.31076I$	$1.09519 + 1.96755I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.830715 + 0.740572I$ $a = 0.60001 + 1.63780I$ $b = -1.098950 + 0.108954I$	$-4.78073 - 2.36169I$	0
$u = 0.830715 - 0.740572I$ $a = 0.60001 - 1.63780I$ $b = -1.098950 - 0.108954I$	$-4.78073 + 2.36169I$	0
$u = -0.893443 + 0.696027I$ $a = -0.391682 + 0.454998I$ $b = 1.41969 - 0.16929I$	$-4.31346 - 3.83468I$	0
$u = -0.893443 - 0.696027I$ $a = -0.391682 - 0.454998I$ $b = 1.41969 + 0.16929I$	$-4.31346 + 3.83468I$	0
$u = -0.853524 + 0.747440I$ $a = 1.64500 - 1.97641I$ $b = -1.43662 - 2.02594I$	$0.11681 + 6.19592I$	0
$u = -0.853524 - 0.747440I$ $a = 1.64500 + 1.97641I$ $b = -1.43662 + 2.02594I$	$0.11681 - 6.19592I$	0
$u = -0.821610 + 0.845291I$ $a = 0.277124 + 0.508899I$ $b = 1.66774 - 1.30196I$	$-8.33360 - 1.96969I$	0
$u = -0.821610 - 0.845291I$ $a = 0.277124 - 0.508899I$ $b = 1.66774 + 1.30196I$	$-8.33360 + 1.96969I$	0
$u = 0.931514 + 0.724402I$ $a = -0.167627 - 0.434622I$ $b = 1.205880 - 0.088640I$	$-0.28086 - 3.26362I$	0
$u = 0.931514 - 0.724402I$ $a = -0.167627 + 0.434622I$ $b = 1.205880 + 0.088640I$	$-0.28086 + 3.26362I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.846645 + 0.822198I$ $a = 0.487687 + 0.772794I$ $b = -0.153694 - 0.215450I$	$-8.55192 - 4.73842I$	0
$u = 0.846645 - 0.822198I$ $a = 0.487687 - 0.772794I$ $b = -0.153694 + 0.215450I$	$-8.55192 + 4.73842I$	0
$u = 0.913707 + 0.747374I$ $a = -0.724192 - 0.211434I$ $b = -0.484202 - 0.589044I$	$-0.81057 - 5.10480I$	0
$u = 0.913707 - 0.747374I$ $a = -0.724192 + 0.211434I$ $b = -0.484202 + 0.589044I$	$-0.81057 + 5.10480I$	0
$u = 0.058759 + 0.809366I$ $a = 4.53846 - 0.30110I$ $b = -2.28712 + 0.27809I$	$4.36128 - 4.16936I$	$12.4339 + 6.8808I$
$u = 0.058759 - 0.809366I$ $a = 4.53846 + 0.30110I$ $b = -2.28712 - 0.27809I$	$4.36128 + 4.16936I$	$12.4339 - 6.8808I$
$u = -0.209111 + 0.767687I$ $a = -0.071283 - 1.138760I$ $b = 0.396327 + 0.485629I$	$4.86449 + 2.07848I$	$16.1441 - 2.2028I$
$u = -0.209111 - 0.767687I$ $a = -0.071283 + 1.138760I$ $b = 0.396327 - 0.485629I$	$4.86449 - 2.07848I$	$16.1441 + 2.2028I$
$u = -0.984841 + 0.718671I$ $a = -1.176210 + 0.239572I$ $b = -1.14052 + 2.10734I$	$0.53842 + 1.84717I$	0
$u = -0.984841 - 0.718671I$ $a = -1.176210 - 0.239572I$ $b = -1.14052 - 2.10734I$	$0.53842 - 1.84717I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.791011+0.950672I$ $a=-1.61662+1.62965I$ $b=\quad 1.96254+1.09066I$	$-8.00368+8.01849I$	0
$u=-0.791011-0.950672I$ $a=-1.61662-1.62965I$ $b=\quad 1.96254-1.09066I$	$-8.00368-8.01849I$	0
$u=\quad 0.749070+0.108534I$ $a=\quad 0.464143+0.806483I$ $b=\quad 1.087010+0.830302I$	$-1.24756+2.47949I$	$1.16218-4.53849I$
$u=\quad 0.749070-0.108534I$ $a=\quad 0.464143-0.806483I$ $b=\quad 1.087010-0.830302I$	$-1.24756-2.47949I$	$1.16218+4.53849I$
$u=-0.458655+1.171940I$ $a=\quad 1.47345-0.83047I$ $b=-1.44496-0.40210I$	$4.31504+4.03898I$	0
$u=-0.458655-1.171940I$ $a=\quad 1.47345+0.83047I$ $b=-1.44496+0.40210I$	$4.31504-4.03898I$	0
$u=\quad 0.746334+1.015930I$ $a=\quad 0.363333+0.193804I$ $b=-1.264550-0.463867I$	$-3.92401-3.56783I$	0
$u=\quad 0.746334-1.015930I$ $a=\quad 0.363333-0.193804I$ $b=-1.264550+0.463867I$	$-3.92401+3.56783I$	0
$u=\quad 0.801818+0.982376I$ $a=\quad 0.433833-0.506247I$ $b=-0.265138-0.052591I$	$-8.05703-1.42378I$	0
$u=\quad 0.801818-0.982376I$ $a=\quad 0.433833+0.506247I$ $b=-0.265138+0.052591I$	$-8.05703+1.42378I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.572904 + 1.139750I$ $a = 0.816949 + 0.121925I$ $b = -0.49318 + 1.48394I$	$0.780282 - 0.975175I$	0
$u = 0.572904 - 1.139750I$ $a = 0.816949 - 0.121925I$ $b = -0.49318 - 1.48394I$	$0.780282 + 0.975175I$	0
$u = -1.105290 + 0.681901I$ $a = -0.518893 + 0.695577I$ $b = -0.068992 + 0.331381I$	$-9.61789 - 2.23788I$	0
$u = -1.105290 - 0.681901I$ $a = -0.518893 - 0.695577I$ $b = -0.068992 - 0.331381I$	$-9.61789 + 2.23788I$	0
$u = 0.529577 + 1.188440I$ $a = -1.83871 - 0.54447I$ $b = 1.34592 - 1.37777I$	$1.79223 - 7.30523I$	0
$u = 0.529577 - 1.188440I$ $a = -1.83871 + 0.54447I$ $b = 1.34592 + 1.37777I$	$1.79223 + 7.30523I$	0
$u = -0.777256 + 1.057710I$ $a = -0.98138 + 1.32398I$ $b = 1.65665 + 0.10271I$	$-3.20942 + 10.04150I$	0
$u = -0.777256 - 1.057710I$ $a = -0.98138 - 1.32398I$ $b = 1.65665 - 0.10271I$	$-3.20942 - 10.04150I$	0
$u = -0.123671 + 0.652554I$ $a = 1.108600 - 0.254962I$ $b = -1.137750 - 0.541468I$	$3.71168 + 4.46923I$	$9.9645 - 11.0760I$
$u = -0.123671 - 0.652554I$ $a = 1.108600 + 0.254962I$ $b = -1.137750 + 0.541468I$	$3.71168 - 4.46923I$	$9.9645 + 11.0760I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.030964 + 0.662671I$ $a = -3.98163 + 2.37558I$ $b = 0.85724 - 1.52082I$	$4.35373 - 1.34213I$	$11.11045 - 1.66726I$
$u = 0.030964 - 0.662671I$ $a = -3.98163 - 2.37558I$ $b = 0.85724 + 1.52082I$	$4.35373 + 1.34213I$	$11.11045 + 1.66726I$
$u = -0.050606 + 0.651811I$ $a = 0.902429 + 0.451016I$ $b = 0.573558 + 0.775451I$	$-4.00181 + 3.70212I$	$13.57429 - 0.10210I$
$u = -0.050606 - 0.651811I$ $a = 0.902429 - 0.451016I$ $b = 0.573558 - 0.775451I$	$-4.00181 - 3.70212I$	$13.57429 + 0.10210I$
$u = 1.204890 + 0.695342I$ $a = -0.432216 + 0.391136I$ $b = -2.16038 - 1.14469I$	$-8.45230 + 8.76364I$	0
$u = 1.204890 - 0.695342I$ $a = -0.432216 - 0.391136I$ $b = -2.16038 + 1.14469I$	$-8.45230 - 8.76364I$	0
$u = -0.594726$ $a = -0.215660$ $b = -0.911050$	1.23122	8.43390
$u = 0.209731 + 1.392820I$ $a = -1.31171 - 0.61402I$ $b = 1.73733 + 0.84785I$	$3.27062 - 2.27476I$	0
$u = 0.209731 - 1.392820I$ $a = -1.31171 + 0.61402I$ $b = 1.73733 - 0.84785I$	$3.27062 + 2.27476I$	0
$u = -0.81844 + 1.15419I$ $a = -0.273730 - 0.330386I$ $b = 0.289304 - 0.329456I$	$-8.05820 + 9.16868I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.81844 - 1.15419I$ $a = -0.273730 + 0.330386I$ $b = 0.289304 + 0.329456I$	$-8.05820 - 9.16868I$	0
$u = 0.86062 + 1.18663I$ $a = 1.45137 + 1.13375I$ $b = -2.16489 + 1.35997I$	$-6.8030 - 16.0998I$	0
$u = 0.86062 - 1.18663I$ $a = 1.45137 - 1.13375I$ $b = -2.16489 - 1.35997I$	$-6.8030 + 16.0998I$	0
$u = -0.60438 + 1.49192I$ $a = 1.48378 - 0.45493I$ $b = -2.45741 - 1.34669I$	$3.02134 + 5.22680I$	0
$u = -0.60438 - 1.49192I$ $a = 1.48378 + 0.45493I$ $b = -2.45741 + 1.34669I$	$3.02134 - 5.22680I$	0
$u = 0.083417 + 0.315334I$ $a = 4.93779 + 3.20489I$ $b = 0.289054 + 0.647459I$	$-1.75204 + 2.60727I$	$-2.01169 + 0.16316I$
$u = 0.083417 - 0.315334I$ $a = 4.93779 - 3.20489I$ $b = 0.289054 - 0.647459I$	$-1.75204 - 2.60727I$	$-2.01169 - 0.16316I$

II. $\boldsymbol{I_2^u = \langle -162u^{19} - 529u^{18} + \cdots + 67b - 916,\ -569u^{19} + 427u^{18} + \cdots + 67a + 270,\ u^{20} + 6u^{18} + \cdots + 9u^2 + 1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 8.49254u^{19} - 6.37313u^{18} + \cdots + 23.1194u - 4.02985 \\ 2.41791u^{19} + 7.89552u^{18} + \cdots + 15.3134u + 13.6716 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -1.79104u^{19} + 20.4478u^{18} + \cdots - 1.34328u + 39.8358 \\ -8.91045u^{19} - 3.52239u^{18} + \cdots - 12.4328u + 2.35821 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 8.11940u^{19} + 1.97015u^{18} + \cdots + 40.0896u + 14.4776 \\ 13.3881u^{19} + 4.40299u^{18} + \cdots + 28.7910u + 0.552239 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 21.5075u^{19} + 6.37313u^{18} + \cdots + 68.8806u + 15.0299 \\ 13.3881u^{19} + 4.40299u^{18} + \cdots + 28.7910u + 0.552239 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 2.41791u^{19} - 8.10448u^{18} + \cdots - 0.686567u - 11.3284 \\ 2.85075u^{19} + 7.53731u^{18} + \cdots + 21.3881u + 15.4030 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 22.1045u^{19} - 3.77612u^{18} + \cdots + 24.3284u - 5.58209 \\ 8u^{19} + 11u^{18} + \cdots + 43u + 18 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 28.8955u^{19} + 2.77612u^{18} + \cdots + 12.6716u - 25.4179 \\ 5.37313u^{19} - 4.34328u^{18} + \cdots + 7.02985u - 21.5075 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 3.77612u^{19} + 0.805970u^{18} + \cdots + 18.5821u + 8.10448 \\ 19.0299u^{19} + 6.49254u^{18} + \cdots + 46.5224u + 6.11940 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 5.32836u^{19} + 1.41791u^{18} + \cdots - 13.2537u - 6.68657 \\ -9.10448u^{19} - 2.22388u^{18} + \cdots - 13.3284u - 1.41791 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{2549}{67}u^{19} + \frac{2495}{67}u^{18} + \cdots + \frac{11811}{67}u + \frac{7516}{67}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{20} - 11u^{19} + \cdots - 15u + 1$
c_2	$u^{20} + u^{19} + \cdots + u + 1$
c_3	$u^{20} + 6u^{18} + \cdots + 9u^2 + 1$
c_4	$u^{20} - 5u^{18} + \cdots - 6u^2 + 1$
c_5	$u^{20} - u^{19} + \cdots - u + 1$
c_6	$u^{20} + 2u^{19} + \cdots - 4u^2 + 1$
c_7	$u^{20} + 2u^{19} + \cdots - 2u^2 + 1$
c_8	$u^{20} - 3u^{19} + \cdots - 10u^2 + 1$
c_9	$u^{20} - 5u^{18} + \cdots - 6u^2 + 1$
c_{10}	$u^{20} - 10u^{19} + \cdots - 12u + 1$
c_{11}	$u^{20} - 2u^{19} + \cdots - 4u^2 + 1$
c_{12}	$u^{20} - 3u^{19} + \cdots + 4u + 1$

(v) **Riley Polynomials at the component**

Crossings	Riley Polynomials at each crossing
c_1	$y^{20} + 7y^{19} + \cdots - 13y + 1$
c_2, c_5	$y^{20} + 11y^{19} + \cdots + 15y + 1$
c_3	$y^{20} + 12y^{19} + \cdots + 18y + 1$
c_4, c_9	$y^{20} - 10y^{19} + \cdots - 12y + 1$
c_6, c_{11}	$y^{20} - 14y^{19} + \cdots - 8y + 1$
c_7	$y^{20} + 18y^{19} + \cdots - 4y + 1$
c_8	$y^{20} - 25y^{19} + \cdots - 20y + 1$
c_{10}	$y^{20} + 10y^{19} + \cdots + 4y + 1$
c_{12}	$y^{20} - 17y^{19} + \cdots + 4y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.355345 + 1.025280I$ $a = 1.36470 - 1.34565I$ $b = -1.176260 + 0.757366I$	$5.09233 + 0.56778I$	$8.69401 - 1.53858I$
$u = -0.355345 - 1.025280I$ $a = 1.36470 + 1.34565I$ $b = -1.176260 - 0.757366I$	$5.09233 - 0.56778I$	$8.69401 + 1.53858I$
$u = 0.338576 + 1.132500I$ $a = -2.28130 - 0.58160I$ $b = 2.06551 - 0.61176I$	$5.46617 - 6.02563I$	$11.16031 + 7.36754I$
$u = 0.338576 - 1.132500I$ $a = -2.28130 + 0.58160I$ $b = 2.06551 + 0.61176I$	$5.46617 + 6.02563I$	$11.16031 - 7.36754I$
$u = -0.710578 + 0.966405I$ $a = -1.52937 - 0.46414I$ $b = -0.71185 + 2.55057I$	$1.77651 + 0.66802I$	$11.11874 + 1.21947I$
$u = -0.710578 - 0.966405I$ $a = -1.52937 + 0.46414I$ $b = -0.71185 - 2.55057I$	$1.77651 - 0.66802I$	$11.11874 - 1.21947I$
$u = -0.317333 + 0.724179I$ $a = 0.75822 + 1.64326I$ $b = -0.182533 - 0.634494I$	$3.96590 + 2.30760I$	$5.67872 - 4.88992I$
$u = -0.317333 - 0.724179I$ $a = 0.75822 - 1.64326I$ $b = -0.182533 + 0.634494I$	$3.96590 - 2.30760I$	$5.67872 + 4.88992I$
$u = -0.117386 + 0.721837I$ $a = 3.36707 + 0.83360I$ $b = -0.704452 - 0.220228I$	$-1.23001 + 2.92216I$	$9.81470 - 5.41691I$
$u = -0.117386 - 0.721837I$ $a = 3.36707 - 0.83360I$ $b = -0.704452 + 0.220228I$	$-1.23001 - 2.92216I$	$9.81470 + 5.41691I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.098310 + 0.689577I$ $a = 0.329509 - 0.485063I$ $b = 1.68283 + 0.28491I$	$0.16878 - 3.82990I$	$9.38703 + 7.38381I$
$u = 1.098310 - 0.689577I$ $a = 0.329509 + 0.485063I$ $b = 1.68283 - 0.28491I$	$0.16878 + 3.82990I$	$9.38703 - 7.38381I$
$u = 0.147095 + 0.666021I$ $a = -1.42462 - 0.91452I$ $b = 1.35466 + 0.66805I$	$3.44748 + 3.77342I$	$3.92747 - 0.87310I$
$u = 0.147095 - 0.666021I$ $a = -1.42462 + 0.91452I$ $b = 1.35466 - 0.66805I$	$3.44748 - 3.77342I$	$3.92747 + 0.87310I$
$u = 0.158162 + 0.572450I$ $a = -1.58765 + 0.59956I$ $b = -0.532818 + 0.609853I$	$-4.33471 - 3.83881I$	$-8.13243 + 8.66691I$
$u = 0.158162 - 0.572450I$ $a = -1.58765 - 0.59956I$ $b = -0.532818 - 0.609853I$	$-4.33471 + 3.83881I$	$-8.13243 - 8.66691I$
$u = -0.76716 + 1.21117I$ $a = 1.60777 - 0.74753I$ $b = -1.63951 - 1.98014I$	$2.21300 + 5.96268I$	$6.40503 - 7.23236I$
$u = -0.76716 - 1.21117I$ $a = 1.60777 + 0.74753I$ $b = -1.63951 + 1.98014I$	$2.21300 - 5.96268I$	$6.40503 + 7.23236I$
$u = 0.52566 + 1.39685I$ $a = -1.104330 - 0.728949I$ $b = 1.84444 - 0.04869I$	$3.17377 - 3.27114I$	$7.44642 + 4.46067I$
$u = 0.52566 - 1.39685I$ $a = -1.104330 + 0.728949I$ $b = 1.84444 + 0.04869I$	$3.17377 + 3.27114I$	$7.44642 - 4.46067I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{20}-11u^{19}+\cdots-15u+1)(u^{67}+42u^{66}+\cdots-24651u-1849)$
c_2	$(u^{20}+u^{19}+\cdots+u+1)(u^{67}+21u^{65}+\cdots+17u-43)$
c_3	$(u^{20}+6u^{18}+\cdots+9u^2+1)(u^{67}+u^{66}+\cdots-36u-27)$
c_4	$(u^{20}-5u^{18}+\cdots-6u^2+1)(u^{67}+u^{66}+\cdots-20u-19)$
c_5	$(u^{20}-u^{19}+\cdots-u+1)(u^{67}+21u^{65}+\cdots+17u-43)$
c_6	$(u^{20}+2u^{19}+\cdots-4u^2+1)(u^{67}-u^{66}+\cdots-20u-1)$
c_7	$(u^{20}+2u^{19}+\cdots-2u^2+1)(u^{67}-7u^{66}+\cdots+1902976u-712609)$
c_8	$(u^{20}-3u^{19}+\cdots-10u^2+1)$ $\cdot(u^{67}+6u^{66}+\cdots+57128562u-63140553)$
c_9	$(u^{20}-5u^{18}+\cdots-6u^2+1)(u^{67}+u^{66}+\cdots-20u-19)$
c_{10}	$(u^{20}-10u^{19}+\cdots-12u+1)(u^{67}-19u^{66}+\cdots+5796u-361)$
c_{11}	$(u^{20}-2u^{19}+\cdots-4u^2+1)(u^{67}-u^{66}+\cdots-20u-1)$
c_{12}	$(u^{20}-3u^{19}+\cdots+4u+1)(u^{67}+10u^{66}+\cdots+65390u+26317)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{20} + 7y^{19} + \cdots - 13y + 1)$ $\cdot (y^{67} - 22y^{66} + \cdots + 45805077y - 3418801)$
c_2, c_5	$(y^{20} + 11y^{19} + \cdots + 15y + 1)(y^{67} + 42y^{66} + \cdots - 24651y - 1849)$
c_3	$(y^{20} + 12y^{19} + \cdots + 18y + 1)(y^{67} + 23y^{66} + \cdots - 28350y - 729)$
c_4, c_9	$(y^{20} - 10y^{19} + \cdots - 12y + 1)(y^{67} - 19y^{66} + \cdots + 5796y - 361)$
c_6, c_{11}	$(y^{20} - 14y^{19} + \cdots - 8y + 1)(y^{67} - 15y^{66} + \cdots + 72y - 1)$
c_7	$(y^{20} + 18y^{19} + \cdots - 4y + 1)$ $\cdot (y^{67} - 23y^{66} + \cdots - 3886211988072y - 507811586881)$
c_8	$(y^{20} - 25y^{19} + \cdots - 20y + 1)$ $\cdot (y^{67} - 134y^{66} + \cdots + 205611754284956160y - 3986729433145809)$
c_{10}	$(y^{20} + 10y^{19} + \cdots + 4y + 1)(y^{67} + 69y^{66} + \cdots - 1190900y - 130321)$
c_{12}	$(y^{20} - 17y^{19} + \cdots + 4y + 1)$ $\cdot (y^{67} + 14y^{66} + \cdots + 48815900848y - 692584489)$