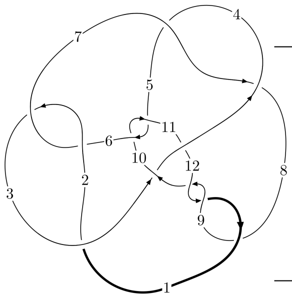
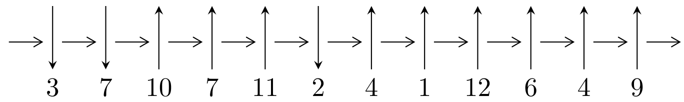
$12n_{0595}$ ($K12n_{0595}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u &= \langle 187u^{23} + 2090u^{22} + \cdots + 32b + 20128,\ 629u^{23} + 5916u^{22} + \cdots + 64a + 31616,\\
&\quad u^{24} + 10u^{23} + \cdots + 544u + 64\rangle\\
I_2^u &= \langle -5.02864 \times 10^{17}a^{11}u^2 - 2.22146 \times 10^{17}a^{10}u^2 + \cdots - 9.76070 \times 10^{17}a - 5.75653 \times 10^{16},\\
&\quad -a^{11}u^2 - 3a^{10}u^2 + \cdots + 342a + 270,\ u^3 - u^2 + 1\rangle\\
I_3^u &= \langle -7u^{14} + 17u^{13} + \cdots + b - 7,\ -7u^{14} + 14u^{13} + \cdots + a - 12,\\
&\quad u^{15} - 3u^{14} + 11u^{12} - 11u^{11} - 14u^{10} + 30u^9 + u^8 - 35u^7 + 15u^6 + 22u^5 - 15u^4 - 7u^3 + 6u^2 + u - 1\rangle
\end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 75 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. $\boldsymbol{I^u_1 = \langle 187u^{23} + 2090u^{22} + \cdots + 32b + 20128,\ 629u^{23} + 5916u^{22} + \cdots + 64a + 31616,\ u^{24} + 10u^{23} + \cdots + 544u + 64\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -\frac{629}{64}u^{23} - \frac{1479}{16}u^{22} + \cdots - \frac{15951}{4}u - 494 \\ -\frac{187}{32}u^{23} - \frac{1045}{16}u^{22} + \cdots - \frac{9705}{2}u - 629 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} \frac{1}{8}u^{23} + \frac{9}{8}u^{22} + \cdots + \frac{69}{2}u + \frac{9}{2} \\ \frac{1}{8}u^{23} + \frac{5}{4}u^{22} + \cdots + \frac{129}{2}u + 8 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} \frac{11}{16}u^{23} + \frac{29}{4}u^{22} + \cdots + \frac{1881}{4}u + 60 \\ -\frac{1}{8}u^{23} + \frac{1}{2}u^{22} + \cdots + 383u + 52 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^2 + 1 \\ -u^4 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} \frac{683}{64}u^{23} + \frac{1455}{16}u^{22} + \cdots + \frac{10705}{4}u + 320 \\ \frac{469}{32}u^{23} + \frac{1889}{16}u^{22} + \cdots + \frac{3623}{2}u + 185 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} \frac{23}{16}u^{23} + \frac{83}{4}u^{22} + \cdots + 2552u + 347 \\ -\frac{191}{16}u^{23} - \frac{1531}{16}u^{22} + \cdots - 1486u - 148 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} \frac{1}{8}u^{23} + \frac{9}{8}u^{22} + \cdots + \frac{69}{2}u + \frac{9}{2} \\ \frac{1}{8}u^{23} + u^{22} + \cdots + 30u^2 + \frac{9}{2}u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -\frac{35}{16}u^{23} - \frac{83}{4}u^{22} + \cdots - \frac{3627}{4}u - 112 \\ \frac{3}{8}u^{23} - \frac{1}{2}u^{22} + \cdots - 905u - 124 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 9u^{23} + \frac{361}{4}u^{22} + \cdots + 5492u + 734$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{24} + 10u^{23} + \cdots + 5120u + 4096$
c_2, c_6	$u^{24} - 10u^{23} + \cdots - 544u + 64$
c_3, c_5, c_{10}	$u^{24} + u^{22} + \cdots - u + 1$
c_4, c_7	$u^{24} + 4u^{23} + \cdots + 3u + 1$
c_8, c_9, c_{12}	$u^{24} + 6u^{23} + \cdots + 36u + 8$
c_{11}	$u^{24} - 2u^{23} + \cdots - 253u^2 + 16$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{24} + 10y^{23} + \cdots + 246415360y + 16777216$
c_2, c_6	$y^{24} - 10y^{23} + \cdots - 5120y + 4096$
c_3, c_5, c_{10}	$y^{24} + 2y^{23} + \cdots + 3y + 1$
c_4, c_7	$y^{24} - 36y^{23} + \cdots - 43y + 1$
c_8, c_9, c_{12}	$y^{24} + 20y^{23} + \cdots - 208y + 64$
c_{11}	$y^{24} - 28y^{23} + \cdots - 8096y + 256$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.960426 + 0.434752I$ $a = 1.39464 - 0.85244I$ $b = 0.96884 - 1.42503I$	$-0.39618 + 3.94424I$	$9.54953 - 8.49759I$
$u = -0.960426 - 0.434752I$ $a = 1.39464 + 0.85244I$ $b = 0.96884 + 1.42503I$	$-0.39618 - 3.94424I$	$9.54953 + 8.49759I$
$u = 0.148613 + 0.911725I$ $a = 0.535233 + 0.029034I$ $b = -0.053071 - 0.492300I$	$-3.90744 - 1.61982I$	$3.51812 + 4.40153I$
$u = 0.148613 - 0.911725I$ $a = 0.535233 - 0.029034I$ $b = -0.053071 + 0.492300I$	$-3.90744 + 1.61982I$	$3.51812 - 4.40153I$
$u = -0.610326 + 0.971717I$ $a = -0.759390 + 0.695247I$ $b = 0.212108 + 1.162240I$	$3.60557 + 0.61915I$	$6.47955 - 0.75287I$
$u = -0.610326 - 0.971717I$ $a = -0.759390 - 0.695247I$ $b = 0.212108 - 1.162240I$	$3.60557 - 0.61915I$	$6.47955 + 0.75287I$
$u = -0.603350 + 1.069910I$ $a = 0.600113 - 0.693104I$ $b = -0.379478 - 1.060250I$	$6.67312 - 4.02157I$	$8.76645 + 3.55064I$
$u = -0.603350 - 1.069910I$ $a = 0.600113 + 0.693104I$ $b = -0.379478 + 1.060250I$	$6.67312 + 4.02157I$	$8.76645 - 3.55064I$
$u = 1.242100 + 0.248561I$ $a = -0.058554 - 0.232893I$ $b = 0.014842 + 0.303830I$	$-2.22462 - 1.76771I$	$-0.33207 + 2.72222I$
$u = 1.242100 - 0.248561I$ $a = -0.058554 + 0.232893I$ $b = 0.014842 - 0.303830I$	$-2.22462 + 1.76771I$	$-0.33207 - 2.72222I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.598153+1.149870I$ $a=-0.482510+0.665162I$ $b=\ \ 0.476234+0.952691I$	$1.93569-8.47324I$	$4.22747+6.00356I$
$u=-0.598153-1.149870I$ $a=-0.482510-0.665162I$ $b=\ \ 0.476234-0.952691I$	$1.93569+8.47324I$	$4.22747-6.00356I$
$u=-1.125790+0.732879I$ $a=\ \ 1.287760-0.541469I$ $b=\ \ 1.05292-1.55335I$	$1.96046+5.63124I$	$4.21368-3.68677I$
$u=-1.125790-0.732879I$ $a=\ \ 1.287760+0.541469I$ $b=\ \ 1.05292+1.55335I$	$1.96046-5.63124I$	$4.21368+3.68677I$
$u=-1.274940+0.470739I$ $a=-0.919966+0.816206I$ $b=-0.78868+1.47368I$	$-8.06206+6.43186I$	$-0.98186-9.91203I$
$u=-1.274940-0.470739I$ $a=-0.919966-0.816206I$ $b=-0.78868-1.47368I$	$-8.06206-6.43186I$	$-0.98186+9.91203I$
$u=-1.155680+0.779068I$ $a=-1.296620+0.435684I$ $b=-1.15905+1.51367I$	$4.90945+10.68360I$	$6.29274-6.83109I$
$u=-1.155680-0.779068I$ $a=-1.296620-0.435684I$ $b=-1.15905-1.51367I$	$4.90945-10.68360I$	$6.29274+6.83109I$
$u=-0.444487+0.406708I$ $a=-1.387950+0.186641I$ $b=-0.541015+0.647447I$	$1.007530-0.240613I$	$10.53326+2.62206I$
$u=-0.444487-0.406708I$ $a=-1.387950-0.186641I$ $b=-0.541015-0.647447I$	$1.007530+0.240613I$	$10.53326-2.62206I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.18147+0.80593I$ $a=\ \ 1.276470-0.354607I$ $b=\ \ 1.22233-1.44770I$	$0.0595+15.4273I$	$2.28436-8.54538I$
$u=-1.18147-0.80593I$ $a=\ \ 1.276470+0.354607I$ $b=\ \ 1.22233+1.44770I$	$0.0595-15.4273I$	$2.28436+8.54538I$
$u=\ \ 1.56391+0.41904I$ $a=\ \ 0.060771+0.164825I$ $b=-0.025972-0.283237I$	$-8.02840-4.65058I$	$-5.55122+0.I$
$u=\ \ 1.56391-0.41904I$ $a=\ \ 0.060771-0.164825I$ $b=-0.025972+0.283237I$	$-8.02840+4.65058I$	$-5.55122+0.I$

II. $\boldsymbol{I_2^u = \langle -5.03\times 10^{17}a^{11}u^2 - 2.22\times 10^{17}a^{10}u^2 + \cdots - 9.76\times 10^{17}a - 5.76\times 10^{16},\ -a^{11}u^2 - 3a^{10}u^2 + \cdots + 342a + 270,\ u^3 - u^2 + 1\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} a \\ 0.760828a^{11}u^2 + 0.336105a^{10}u^2 + \cdots + 1.47678a + 0.0870957 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 0.161224a^{11}u^2 - 0.231777a^{10}u^2 + \cdots - 0.574135a - 1.02670 \\ 0.322449a^{11}u^2 - 0.463555a^{10}u^2 + \cdots - 1.14827a - 2.05340 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -1.11863a^{11}u^2 - 2.00948a^{10}u^2 + \cdots - 0.0799198a + 0.987036 \\ -2.18025a^{11}u^2 - 2.66485a^{10}u^2 + \cdots - 0.269690a + 3.10319 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^2 + 1 \\ -u^2 + u + 1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0.751052a^{11}u^2 + 0.532088a^{10}u^2 + \cdots - 2.09089a - 0.395085 \\ 1.51188a^{11}u^2 + 0.868193a^{10}u^2 + \cdots - 1.61411a - 0.307989 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 2.43820a^{11}u^2 + 2.31550a^{10}u^2 + \cdots - 7.45269a - 0.483830 \\ -0.942804a^{11}u^2 + 1.01259a^{10}u^2 + \cdots - 11.3778a - 3.58923 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0.161224a^{11}u^2 - 0.231777a^{10}u^2 + \cdots - 0.574135a - 1.02670 \\ 0.610760a^{11}u^2 + 0.660458a^{10}u^2 + \cdots - 1.46841a - 1.69087 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0.587461a^{11}u^2 - 1.49312a^{10}u^2 + \cdots + 0.224321a - 1.59341 \\ -1.64875a^{11}u^2 - 4.32440a^{10}u^2 + \cdots + 1.17215a + 1.29332 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{472821250888279224}{660943353461191351}a^{11}u^2 - \frac{2769977983618152264}{660943353461191351}a^{10}u^2 + \cdots + \frac{1561258453846729522 8}{660943353461191351}a + \frac{6301686886882686602}{660943353461191351}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u^3+u^2+2u+1)^{12}$
c_2, c_6	$(u^3+u^2-1)^{12}$
c_3, c_5, c_{10}	$u^{36}+u^{35}+\cdots-24u-1$
c_4, c_7	$u^{36}+5u^{35}+\cdots-25616u-8257$
c_8, c_9, c_{12}	$(u^6-u^5+3u^4-2u^3+2u^2-u-1)^6$
c_{11}	$u^{36}-u^{35}+\cdots-194210u-32651$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$(y^3+3y^2+2y-1)^{12}$
c_2, c_6	$(y^3-y^2+2y-1)^{12}$
c_3, c_5, c_{10}	$y^{36}+15y^{35}+\cdots-424y+1$
c_4, c_7	$y^{36}-9y^{35}+\cdots+88932224y+68178049$
c_8, c_9, c_{12}	$(y^6+5y^5+9y^4+4y^3-6y^2-5y+1)^6$
c_{11}	$y^{36}+3y^{35}+\cdots-12157276468y+1066087801$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.877439 + 0.744862I$ $a = -0.966871 + 0.180936I$ $b = -0.819834 - 0.289466I$	$-1.17182 - 2.82812I$	$8.92653 + 2.97945I$
$u = 0.877439 + 0.744862I$ $a = -0.906735 + 0.163934I$ $b = -1.40770 - 0.61461I$	$-4.87092 - 4.80053I$	$0.08548 + 6.66423I$
$u = 0.877439 + 0.744862I$ $a = -0.596231 + 0.691478I$ $b = -0.881257 - 0.308926I$	$-4.87092 - 0.85571I$	$0.085479 - 0.705331I$
$u = 0.877439 + 0.744862I$ $a = 0.693529 + 0.478182I$ $b = 0.85756 + 1.73624I$	$1.78490 - 7.42025I$	$4.09089 + 6.18427I$
$u = 0.877439 + 0.744862I$ $a = 0.757411 - 0.290893I$ $b = 1.038210 - 0.162620I$	$-4.87092 - 0.85571I$	$0.085479 - 0.705331I$
$u = 0.877439 + 0.744862I$ $a = -0.570573 - 0.528271I$ $b = -0.62680 - 1.75390I$	$5.74941 - 2.82812I$	$7.77925 + 2.97945I$
$u = 0.877439 + 0.744862I$ $a = 0.705785 - 0.269246I$ $b = 0.983142 + 0.561425I$	$-1.17182 - 2.82812I$	$8.92653 + 2.97945I$
$u = 0.877439 + 0.744862I$ $a = 0.431400 + 0.557577I$ $b = 0.38501 + 1.72079I$	$1.78490 + 1.76400I$	$4.09089 - 0.22537I$
$u = 0.877439 + 0.744862I$ $a = 1.277990 - 0.384427I$ $b = 0.917712 + 0.531550I$	$-4.87092 - 4.80053I$	$0.08548 + 6.66423I$
$u = 0.877439 + 0.744862I$ $a = -1.22258 - 0.92330I$ $b = 0.036791 - 0.810574I$	$1.78490 + 1.76400I$	$4.09089 - 0.22537I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.877439 + 0.744862I$ $a = 1.40135 + 0.80927I$ $b = 0.107154 + 0.888524I$	$5.74941 - 2.82812I$	$7.77925 + 2.97945I$
$u = 0.877439 + 0.744862I$ $a = -1.54427 - 0.66783I$ $b = -0.252349 - 0.936159I$	$1.78490 - 7.42025I$	$4.09089 + 6.18427I$
$u = 0.877439 - 0.744862I$ $a = -0.966871 - 0.180936I$ $b = -0.819834 + 0.289466I$	$-1.17182 + 2.82812I$	$8.92653 - 2.97945I$
$u = 0.877439 - 0.744862I$ $a = -0.906735 - 0.163934I$ $b = -1.40770 + 0.61461I$	$-4.87092 + 4.80053I$	$0.08548 - 6.66423I$
$u = 0.877439 - 0.744862I$ $a = -0.596231 - 0.691478I$ $b = -0.881257 + 0.308926I$	$-4.87092 + 0.85571I$	$0.085479 + 0.705331I$
$u = 0.877439 - 0.744862I$ $a = 0.693529 - 0.478182I$ $b = 0.85756 - 1.73624I$	$1.78490 + 7.42025I$	$4.09089 - 6.18427I$
$u = 0.877439 - 0.744862I$ $a = 0.757411 + 0.290893I$ $b = 1.038210 + 0.162620I$	$-4.87092 + 0.85571I$	$0.085479 + 0.705331I$
$u = 0.877439 - 0.744862I$ $a = -0.570573 + 0.528271I$ $b = -0.62680 + 1.75390I$	$5.74941 + 2.82812I$	$7.77925 - 2.97945I$
$u = 0.877439 - 0.744862I$ $a = 0.705785 + 0.269246I$ $b = 0.983142 - 0.561425I$	$-1.17182 + 2.82812I$	$8.92653 - 2.97945I$
$u = 0.877439 - 0.744862I$ $a = 0.431400 - 0.557577I$ $b = 0.38501 - 1.72079I$	$1.78490 - 1.76400I$	$4.09089 + 0.22537I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.877439 - 0.744862I$ $a = 1.277990 + 0.384427I$ $b = 0.917712 - 0.531550I$	$-4.87092 + 4.80053I$	$0.08548 - 6.66423I$
$u = 0.877439 - 0.744862I$ $a = -1.22258 + 0.92330I$ $b = 0.036791 + 0.810574I$	$1.78490 - 1.76400I$	$4.09089 + 0.22537I$
$u = 0.877439 - 0.744862I$ $a = 1.40135 - 0.80927I$ $b = 0.107154 - 0.888524I$	$5.74941 + 2.82812I$	$7.77925 - 2.97945I$
$u = 0.877439 - 0.744862I$ $a = -1.54427 + 0.66783I$ $b = -0.252349 + 0.936159I$	$1.78490 + 7.42025I$	$4.09089 - 6.18427I$
$u = -0.754878$ $a = 0.744757 + 1.086550I$ $b = 0.562201 - 0.820211I$	-5.30941	$2.39727 + 0.I$
$u = -0.754878$ $a = 0.744757 - 1.086550I$ $b = 0.562201 + 0.820211I$	-5.30941	$2.39727 + 0.I$
$u = -0.754878$ $a = -0.611696 + 0.297636I$ $b = -0.68475 - 1.56206I$	$-9.00850 + 1.97241I$	$-6.44379 - 3.68478I$
$u = -0.754878$ $a = -0.611696 - 0.297636I$ $b = -0.68475 + 1.56206I$	$-9.00850 - 1.97241I$	$-6.44379 + 3.68478I$
$u = -0.754878$ $a = 1.89410 + 0.09019I$ $b = 2.10577 - 0.44724I$	$-2.35268 - 4.59213I$	$-2.43837 + 3.20482I$
$u = -0.754878$ $a = 1.89410 - 0.09019I$ $b = 2.10577 + 0.44724I$	$-2.35268 + 4.59213I$	$-2.43837 - 3.20482I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.754878$ $a=-2.00292$ $b=-2.06588$	1.61183	1.25000
$u=-0.754878$ $a=-0.90710+2.06929I$ $b=-0.461755-0.224679I$	$-9.00850-1.97241I$	$-6.44379+3.68478I$
$u=-0.754878$ $a=-0.90710-2.06929I$ $b=-0.461755+0.224679I$	$-9.00850+1.97241I$	$-6.44379-3.68478I$
$u=-0.754878$ $a=-2.73671$ $b=-1.51196$	1.61183	1.25000
$u=-0.754878$ $a=\ \ 2.78955+0.59246I$ $b=\ \ 1.42981-0.06809I$	$-2.35268+4.59213I$	$-2.43837-3.20482I$
$u=-0.754878$ $a=\ \ 2.78955-0.59246I$ $b=\ \ 1.42981+0.06809I$	$-2.35268-4.59213I$	$-2.43837+3.20482I$

III. $\boldsymbol{I_3^u =}$
$\boldsymbol{\langle -7u^{14}+17u^{13}+\cdots+b-7,\ -7u^{14}+14u^{13}+\cdots+a-12,\ u^{15}-3u^{14}+\cdots+u-1\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_7 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_3 = \begin{pmatrix}1\\u^2\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}7u^{14}-14u^{13}+\cdots-3u+12\\7u^{14}-17u^{13}+\cdots+5u+7\end{pmatrix}$$
$$a_4 = \begin{pmatrix}-u^{14}+2u^{13}+\cdots+u-6\\-u^{14}+3u^{13}+\cdots-6u-1\end{pmatrix}$$
$$a_8 = \begin{pmatrix}5u^{14}-14u^{13}+\cdots+9u+4\\u^{14}-2u^{13}+\cdots-u+6\end{pmatrix}$$
$$a_1 = \begin{pmatrix}-u^2+1\\-u^4\end{pmatrix}$$
$$a_6 = \begin{pmatrix}u\\u\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}6u^{14}-12u^{13}+\cdots-55u^2+9\\6u^{14}-15u^{13}+\cdots+8u+4\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}8u^{14}-19u^{13}+\cdots-55u^2+10\\4u^{14}-8u^{13}+\cdots+2u+8\end{pmatrix}$$
$$a_5 = \begin{pmatrix}-u^{14}+2u^{13}+\cdots+u-6\\-u^{14}+3u^{13}+\cdots+7u^2-6u\end{pmatrix}$$
$$a_9 = \begin{pmatrix}6u^{14}-16u^{13}+\cdots+9u+8\\u^{14}-2u^{13}+\cdots-u+6\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 14u^{14}-33u^{13}-15u^{12}+125u^{11}-66u^{10}-188u^9+232u^8+128u^7-277u^6-7u^5+206u^4-8u^3-60u^2+9u+15$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{15} - 9u^{14} + \cdots + 13u - 1$
c_2	$u^{15} - 3u^{14} + \cdots + u - 1$
c_3, c_{10}	$u^{15} + 7u^{13} + \cdots - 3u^2 - 1$
c_4	$u^{15} - 2u^{14} + \cdots + 4u^2 + 1$
c_5	$u^{15} + 7u^{13} + \cdots + 3u^2 + 1$
c_6	$u^{15} + 3u^{14} + \cdots + u + 1$
c_7	$u^{15} + 2u^{14} + \cdots - 4u^2 - 1$
c_8, c_9	$u^{15} + u^{14} + \cdots + 2u + 1$
c_{11}	$u^{15} + 11u^{12} + \cdots + 20u + 52$
c_{12}	$u^{15} - u^{14} + \cdots + 2u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{15} + 7y^{14} + \cdots + 9y - 1$
c_2, c_6	$y^{15} - 9y^{14} + \cdots + 13y - 1$
c_3, c_5, c_{10}	$y^{15} + 14y^{14} + \cdots - 6y - 1$
c_4, c_7	$y^{15} + 8y^{14} + \cdots - 8y - 1$
c_8, c_9, c_{12}	$y^{15} + 15y^{14} + \cdots + 2y - 1$
c_{11}	$y^{15} + 22y^{13} + \cdots - 9480y - 2704$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.903593 + 0.241265I$ $a = 0.350344 - 0.717165I$ $b = -0.143541 + 0.732551I$	$-5.33721 + 1.06098I$	$1.94514 - 6.50174I$
$u = -0.903593 - 0.241265I$ $a = 0.350344 + 0.717165I$ $b = -0.143541 - 0.732551I$	$-5.33721 - 1.06098I$	$1.94514 + 6.50174I$
$u = -1.153700 + 0.341454I$ $a = -0.250605 + 0.447767I$ $b = 0.136231 - 0.602157I$	$-10.48360 + 4.01988I$	$-3.70487 - 3.71278I$
$u = -1.153700 - 0.341454I$ $a = -0.250605 - 0.447767I$ $b = 0.136231 + 0.602157I$	$-10.48360 - 4.01988I$	$-3.70487 + 3.71278I$
$u = 1.019660 + 0.734646I$ $a = -0.820127 + 0.113685I$ $b = -0.919765 - 0.486583I$	$-1.92987 - 3.17848I$	$-2.15467 + 7.79131I$
$u = 1.019660 - 0.734646I$ $a = -0.820127 - 0.113685I$ $b = -0.919765 + 0.486583I$	$-1.92987 + 3.17848I$	$-2.15467 - 7.79131I$
$u = 0.761388 + 1.022410I$ $a = 0.507420 - 0.449806I$ $b = 0.846228 + 0.176312I$	$-5.29563 - 2.03853I$	$-2.96527 + 5.97997I$
$u = 0.761388 - 1.022410I$ $a = 0.507420 + 0.449806I$ $b = 0.846228 - 0.176312I$	$-5.29563 + 2.03853I$	$-2.96527 - 5.97997I$
$u = 0.686174$ $a = 3.14054$ $b = 2.15496$	2.14254	20.3790
$u = 0.626156 + 0.247109I$ $a = -2.60546 + 0.72610I$ $b = -1.81085 - 0.18918I$	$-1.59061 - 4.99019I$	$7.82612 + 8.92217I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.626156 - 0.247109I$ $a = -2.60546 - 0.72610I$ $b = -1.81085 + 0.18918I$	$-1.59061 + 4.99019I$	$7.82612 - 8.92217I$
$u = -0.608443 + 0.200961I$ $a = -0.78816 + 1.31289I$ $b = 0.215712 - 0.957209I$	$-8.24398 - 1.54403I$	$3.81810 - 1.58037I$
$u = -0.608443 - 0.200961I$ $a = -0.78816 - 1.31289I$ $b = 0.215712 + 0.957209I$	$-8.24398 + 1.54403I$	$3.81810 + 1.58037I$
$u = 1.41545 + 0.63783I$ $a = 0.536325 + 0.251841I$ $b = 0.598509 + 0.698551I$	$-7.66882 - 5.24684I$	$0.04579 + 7.53706I$
$u = 1.41545 - 0.63783I$ $a = 0.536325 - 0.251841I$ $b = 0.598509 - 0.698551I$	$-7.66882 + 5.24684I$	$0.04579 - 7.53706I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^3+u^2+2u+1)^{12})(u^{15}-9u^{14}+\cdots+13u-1)$ $\cdot(u^{24}+10u^{23}+\cdots+5120u+4096)$
c_2	$((u^3+u^2-1)^{12})(u^{15}-3u^{14}+\cdots+u-1)(u^{24}-10u^{23}+\cdots-544u+64)$
c_3, c_{10}	$(u^{15}+7u^{13}+\cdots-3u^2-1)(u^{24}+u^{22}+\cdots-u+1)$ $\cdot(u^{36}+u^{35}+\cdots-24u-1)$
c_4	$(u^{15}-2u^{14}+\cdots+4u^2+1)(u^{24}+4u^{23}+\cdots+3u+1)$ $\cdot(u^{36}+5u^{35}+\cdots-25616u-8257)$
c_5	$(u^{15}+7u^{13}+\cdots+3u^2+1)(u^{24}+u^{22}+\cdots-u+1)$ $\cdot(u^{36}+u^{35}+\cdots-24u-1)$
c_6	$((u^3+u^2-1)^{12})(u^{15}+3u^{14}+\cdots+u+1)(u^{24}-10u^{23}+\cdots-544u+64)$
c_7	$(u^{15}+2u^{14}+\cdots-4u^2-1)(u^{24}+4u^{23}+\cdots+3u+1)$ $\cdot(u^{36}+5u^{35}+\cdots-25616u-8257)$
c_8, c_9	$((u^6-u^5+3u^4-2u^3+2u^2-u-1)^6)(u^{15}+u^{14}+\cdots+2u+1)$ $\cdot(u^{24}+6u^{23}+\cdots+36u+8)$
c_{11}	$(u^{15}+11u^{12}+\cdots+20u+52)(u^{24}-2u^{23}+\cdots-253u^2+16)$ $\cdot(u^{36}-u^{35}+\cdots-194210u-32651)$
c_{12}	$((u^6-u^5+3u^4-2u^3+2u^2-u-1)^6)(u^{15}-u^{14}+\cdots+2u-1)$ $\cdot(u^{24}+6u^{23}+\cdots+36u+8)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^3+3y^2+2y-1)^{12})(y^{15}+7y^{14}+\cdots+9y-1)$ $\cdot(y^{24}+10y^{23}+\cdots+246415360y+16777216)$
c_2, c_6	$((y^3-y^2+2y-1)^{12})(y^{15}-9y^{14}+\cdots+13y-1)$ $\cdot(y^{24}-10y^{23}+\cdots-5120y+4096)$
c_3, c_5, c_{10}	$(y^{15}+14y^{14}+\cdots-6y-1)(y^{24}+2y^{23}+\cdots+3y+1)$ $\cdot(y^{36}+15y^{35}+\cdots-424y+1)$
c_4, c_7	$(y^{15}+8y^{14}+\cdots-8y-1)(y^{24}-36y^{23}+\cdots-43y+1)$ $\cdot(y^{36}-9y^{35}+\cdots+88932224y+68178049)$
c_8, c_9, c_{12}	$((y^6+5y^5+\cdots-5y+1)^6)(y^{15}+15y^{14}+\cdots+2y-1)$ $\cdot(y^{24}+20y^{23}+\cdots-208y+64)$
c_{11}	$(y^{15}+22y^{13}+\cdots-9480y-2704)(y^{24}-28y^{23}+\cdots-8096y+256)$ $\cdot(y^{36}+3y^{35}+\cdots-12157276468y+1066087801)$