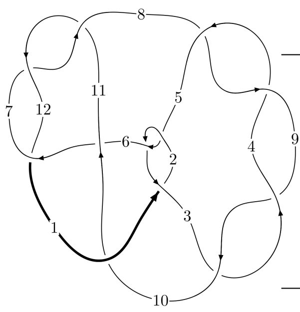
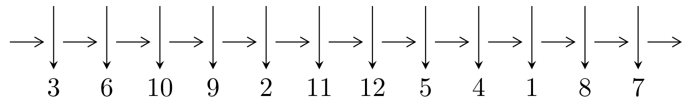
$12a_{0443}$ ($K12a_{0443}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -1.75431 \times 10^{51} u^{70} - 2.70378 \times 10^{52} u^{69} + \cdots + 3.02784 \times 10^{53} b + 1.04182 \times 10^{54},$$
$$4.41577 \times 10^{53} u^{70} + 4.23284 \times 10^{53} u^{69} + \cdots + 1.21114 \times 10^{54} a + 4.82635 \times 10^{52},\ u^{71} + u^{70} + \cdots + 32u + 8$$
$$I_2^u = \langle b+1,\ 4a^3 + 2a^2 u + u,\ u^2 + 2 \rangle$$

$$I_1^v = \langle a,\ b-1,\ v^3 - v^2 + 1 \rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 80 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.

$\boldsymbol{I_1^u = \langle -1.75\times10^{51}u^{70} - 2.70\times10^{52}u^{69} + \cdots + 3.03\times10^{53}b + 1.04\times10^{54},\ 4.42\times10^{53}u^{70} + 4.23\times10^{53}u^{69} + \cdots + 1.21\times10^{54}a + 4.83\times10^{52},\ u^{71} + u^{70} + \cdots + 32u + 8\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}1\\u^2\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-0.364597u^{70} - 0.349494u^{69} + \cdots - 15.4361u - 0.0398498\\0.00579394u^{70} + 0.0892975u^{69} + \cdots - 10.7596u - 3.44081\end{pmatrix}$$
$$a_2 = \begin{pmatrix}-0.414521u^{70} - 0.174320u^{69} + \cdots - 2.24303u + 3.28013\\0.119562u^{70} + 0.236783u^{69} + \cdots + 8.82285u + 1.39838\end{pmatrix}$$
$$a_1 = \begin{pmatrix}-0.294959u^{70} + 0.0624626u^{69} + \cdots + 6.57981u + 4.67851\\0.119562u^{70} + 0.236783u^{69} + \cdots + 8.82285u + 1.39838\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}0.372985u^{70} - 0.0387084u^{69} + \cdots - 4.38781u - 6.83829\\0.199475u^{70} + 0.182332u^{69} + \cdots + 8.55984u + 1.28776\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-0.652363u^{70} - 0.632155u^{69} + \cdots - 47.5864u - 10.0345\\0.0304439u^{70} + 0.101032u^{69} + \cdots - 1.25780u - 1.07234\end{pmatrix}$$
$$a_9 = \begin{pmatrix}u\\u^3 + u\end{pmatrix}$$
$$a_5 = \begin{pmatrix}u^2 + 1\\u^4 + 2u^2\end{pmatrix}$$
$$a_8 = \begin{pmatrix}u^3 + 2u\\u^5 + 3u^3 + u\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}0.317318u^{70} - 0.117930u^{69} + \cdots - 4.58186u - 5.94027\\0.203177u^{70} + 0.232983u^{69} + \cdots + 10.0627u + 2.01853\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.358486u^{70} - 0.330850u^{69} + \cdots + 2.39400u - 7.79623$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{71} + 32u^{70} + \cdots + 7410u + 289$
c_2, c_5	$u^{71} + 4u^{70} + \cdots + 44u + 17$
c_3, c_4, c_8 c_9	$u^{71} + u^{70} + \cdots + 32u + 8$
c_6	$u^{71} - 2u^{70} + \cdots + 3285u + 1443$
c_7, c_{11}, c_{12}	$u^{71} + 2u^{70} + \cdots + 9u + 3$
c_{10}	$u^{71} - 14u^{70} + \cdots - 72303u + 12843$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{71} + 24y^{70} + \cdots + 16243946y - 83521$
c_2, c_5	$y^{71} - 32y^{70} + \cdots + 7410y - 289$
c_3, c_4, c_8 c_9	$y^{71} + 85y^{70} + \cdots - 896y - 64$
c_6	$y^{71} + 10y^{70} + \cdots - 7912941y - 2082249$
c_7, c_{11}, c_{12}	$y^{71} + 66y^{70} + \cdots + 147y - 9$
c_{10}	$y^{71} + 34y^{70} + \cdots + 381725991y - 164942649$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.473168 + 0.878431I$ $a = -0.53384 + 1.32798I$ $b = -0.924551 - 0.698241I$	$8.02517 - 2.03285I$	0
$u = 0.473168 - 0.878431I$ $a = -0.53384 - 1.32798I$ $b = -0.924551 + 0.698241I$	$8.02517 + 2.03285I$	0
$u = 0.470953 + 0.857931I$ $a = 0.504820 - 0.308904I$ $b = -0.500500 + 0.833022I$	$7.98279 - 5.90782I$	0
$u = 0.470953 - 0.857931I$ $a = 0.504820 + 0.308904I$ $b = -0.500500 - 0.833022I$	$7.98279 + 5.90782I$	0
$u = -0.602928 + 0.764237I$ $a = -0.84859 - 1.42584I$ $b = -1.095350 + 0.666686I$	$6.21274 + 11.51430I$	0
$u = -0.602928 - 0.764237I$ $a = -0.84859 + 1.42584I$ $b = -1.095350 - 0.666686I$	$6.21274 - 11.51430I$	0
$u = 0.559666 + 0.742606I$ $a = -0.80017 + 1.51996I$ $b = -1.066630 - 0.626889I$	$0.56353 - 7.97171I$	$-12.0000 + 9.2145I$
$u = 0.559666 - 0.742606I$ $a = -0.80017 - 1.51996I$ $b = -1.066630 + 0.626889I$	$0.56353 + 7.97171I$	$-12.0000 - 9.2145I$
$u = 0.213680 + 0.885890I$ $a = 0.436649 - 0.549995I$ $b = -0.596695 + 0.621320I$	$2.72760 + 0.81021I$	$-5.96136 - 3.20416I$
$u = 0.213680 - 0.885890I$ $a = 0.436649 + 0.549995I$ $b = -0.596695 - 0.621320I$	$2.72760 - 0.81021I$	$-5.96136 + 3.20416I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.388007 + 0.808336I$ $a = 0.544183 + 0.375008I$ $b = -0.479851 - 0.734662I$	$2.25979 + 2.76832I$	$-7.62287 - 5.00106I$
$u = -0.388007 - 0.808336I$ $a = 0.544183 - 0.375008I$ $b = -0.479851 + 0.734662I$	$2.25979 - 2.76832I$	$-7.62287 + 5.00106I$
$u = -0.474266 + 0.757591I$ $a = -0.59765 - 1.57830I$ $b = -0.986418 + 0.600186I$	$1.62234 + 4.02239I$	$-8.44116 - 3.82646I$
$u = -0.474266 - 0.757591I$ $a = -0.59765 + 1.57830I$ $b = -0.986418 - 0.600186I$	$1.62234 - 4.02239I$	$-8.44116 + 3.82646I$
$u = -0.293784 + 1.069940I$ $a = 0.297004 + 0.382780I$ $b = -0.727299 - 0.693450I$	$8.58855 - 3.32812I$	0
$u = -0.293784 - 1.069940I$ $a = 0.297004 - 0.382780I$ $b = -0.727299 + 0.693450I$	$8.58855 + 3.32812I$	0
$u = -0.745802 + 0.196648I$ $a = 0.811261 + 0.143661I$ $b = 0.967672 + 0.630863I$	$4.51022 - 7.00274I$	$-8.77309 + 4.99855I$
$u = -0.745802 - 0.196648I$ $a = 0.811261 - 0.143661I$ $b = 0.967672 - 0.630863I$	$4.51022 + 7.00274I$	$-8.77309 - 4.99855I$
$u = 0.711660 + 0.002490I$ $a = 0.789258 - 0.064470I$ $b = 0.695782 - 0.660435I$	$5.33787 - 1.96354I$	$-7.40260 + 0.33467I$
$u = 0.711660 - 0.002490I$ $a = 0.789258 + 0.064470I$ $b = 0.695782 + 0.660435I$	$5.33787 + 1.96354I$	$-7.40260 - 0.33467I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.077589 + 1.290690I$ $a = -0.406058 + 0.481952I$ $b = -0.440227 - 0.434912I$	$8.17679 - 3.42433I$	0
$u = 0.077589 - 1.290690I$ $a = -0.406058 - 0.481952I$ $b = -0.440227 + 0.434912I$	$8.17679 + 3.42433I$	0
$u = 0.678769 + 0.195846I$ $a = 0.837299 - 0.131686I$ $b = 0.945231 - 0.548058I$	$-1.06972 + 3.78958I$	$-13.5795 - 5.3602I$
$u = 0.678769 - 0.195846I$ $a = 0.837299 + 0.131686I$ $b = 0.945231 + 0.548058I$	$-1.06972 - 3.78958I$	$-13.5795 + 5.3602I$
$u = -0.394782 + 0.580703I$ $a = -0.53228 - 2.28894I$ $b = -0.993588 + 0.420619I$	$0.69826 + 4.73455I$	$-10.28912 - 8.44837I$
$u = -0.394782 - 0.580703I$ $a = -0.53228 + 2.28894I$ $b = -0.993588 - 0.420619I$	$0.69826 - 4.73455I$	$-10.28912 + 8.44837I$
$u = 0.039785 + 1.313640I$ $a = -0.124408 - 0.209895I$ $b = -0.740845 + 0.261890I$	$3.10359 + 1.08344I$	0
$u = 0.039785 - 1.313640I$ $a = -0.124408 + 0.209895I$ $b = -0.740845 - 0.261890I$	$3.10359 - 1.08344I$	0
$u = -0.197696 + 0.588434I$ $a = 1.150670 + 0.132461I$ $b = 1.222820 + 0.092714I$	$2.15066 + 3.68909I$	$-6.75951 - 5.76158I$
$u = -0.197696 - 0.588434I$ $a = 1.150670 - 0.132461I$ $b = 1.222820 - 0.092714I$	$2.15066 - 3.68909I$	$-6.75951 + 5.76158I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.480637 + 0.353712I$ $a = 0.949355 + 0.154234I$ $b = 1.087580 + 0.306374I$	$0.01328 - 1.64181I$	$-13.08359 - 0.70230I$
$u = -0.480637 - 0.353712I$ $a = 0.949355 - 0.154234I$ $b = 1.087580 - 0.306374I$	$0.01328 + 1.64181I$	$-13.08359 + 0.70230I$
$u = -0.589934 + 0.073410I$ $a = 0.848729 + 0.067863I$ $b = 0.756750 + 0.455862I$	$-0.371079 - 0.423170I$	$-11.99532 - 1.09413I$
$u = -0.589934 - 0.073410I$ $a = 0.848729 - 0.067863I$ $b = 0.756750 - 0.455862I$	$-0.371079 + 0.423170I$	$-11.99532 + 1.09413I$
$u = 0.275608 + 0.524761I$ $a = 0.20470 + 2.76427I$ $b = -0.916396 - 0.328077I$	$-2.51609 - 1.27707I$	$-13.5327 + 5.3550I$
$u = 0.275608 - 0.524761I$ $a = 0.20470 - 2.76427I$ $b = -0.916396 + 0.328077I$	$-2.51609 + 1.27707I$	$-13.5327 - 5.3550I$
$u = 0.447268 + 0.362108I$ $a = 0.816358 - 0.152133I$ $b = 0.020184 + 0.537693I$	$3.09578 - 1.52595I$	$-6.90999 + 4.44326I$
$u = 0.447268 - 0.362108I$ $a = 0.816358 + 0.152133I$ $b = 0.020184 - 0.537693I$	$3.09578 + 1.52595I$	$-6.90999 - 4.44326I$
$u = -0.12368 + 1.44056I$ $a = 0.0840639 + 0.1065960I$ $b = -1.114330 - 0.285742I$	$5.83734 + 0.43964I$	0
$u = -0.12368 - 1.44056I$ $a = 0.0840639 - 0.1065960I$ $b = -1.114330 + 0.285742I$	$5.83734 - 0.43964I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.255877 + 0.439131I$ $a = 1.058100 - 0.114052I$ $b = 1.143450 - 0.135051I$	$-2.79040 - 0.81044I$	$-13.3265 + 8.2869I$
$u = 0.255877 - 0.439131I$ $a = 1.058100 + 0.114052I$ $b = 1.143450 + 0.135051I$	$-2.79040 + 0.81044I$	$-13.3265 - 8.2869I$
$u = -0.182759 + 0.460133I$ $a = 1.40097 - 3.17425I$ $b = -0.866846 + 0.230070I$	$1.76227 - 2.18935I$	$-6.07240 - 3.75678I$
$u = -0.182759 - 0.460133I$ $a = 1.40097 + 3.17425I$ $b = -0.866846 - 0.230070I$	$1.76227 + 2.18935I$	$-6.07240 + 3.75678I$
$u = 0.03672 + 1.55370I$ $a = 0.1203480 - 0.0192448I$ $b = -1.325930 + 0.075525I$	$4.07818 - 1.65568I$	0
$u = 0.03672 - 1.55370I$ $a = 0.1203480 + 0.0192448I$ $b = -1.325930 - 0.075525I$	$4.07818 + 1.65568I$	0
$u = -0.02020 + 1.56511I$ $a = -0.92628 + 1.67895I$ $b = 0.742888 - 0.585187I$	$8.77642 - 1.63481I$	0
$u = -0.02020 - 1.56511I$ $a = -0.92628 - 1.67895I$ $b = 0.742888 + 0.585187I$	$8.77642 + 1.63481I$	0
$u = 0.05432 + 1.57233I$ $a = -0.71603 - 1.85678I$ $b = 0.856026 + 0.592276I$	$4.70486 - 2.34368I$	0
$u = 0.05432 - 1.57233I$ $a = -0.71603 + 1.85678I$ $b = 0.856026 - 0.592276I$	$4.70486 + 2.34368I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.08890+1.58049I$ $a=-0.46821+1.92084I$ $b=\ \ 0.956953-0.607831I$	$8.07800+6.38167I$	0
$u=-0.08890-1.58049I$ $a=-0.46821-1.92084I$ $b=\ \ 0.956953+0.607831I$	$8.07800-6.38167I$	0
$u=-0.04875+1.59629I$ $a=\ \ 0.141154+0.020655I$ $b=-1.41234-0.09672I$	$9.75959+4.55275I$	0
$u=-0.04875-1.59629I$ $a=\ \ 0.141154-0.020655I$ $b=-1.41234+0.09672I$	$9.75959-4.55275I$	0
$u=-0.13952+1.62693I$ $a=-0.17731+1.71608I$ $b=\ \ 1.093090-0.710505I$	$9.76099+6.35219I$	0
$u=-0.13952-1.62693I$ $a=-0.17731-1.71608I$ $b=\ \ 1.093090+0.710505I$	$9.76099-6.35219I$	0
$u=\ \ 0.16688+1.62451I$ $a=-0.06936-1.71160I$ $b=\ \ 1.153480+0.697425I$	$8.59519-10.71740I$	0
$u=\ \ 0.16688-1.62451I$ $a=-0.06936+1.71160I$ $b=\ \ 1.153480-0.697425I$	$8.59519+10.71740I$	0
$u=-0.10924+1.63954I$ $a=-0.659425-1.130220I$ $b=\ \ 0.474065+0.961082I$	$10.67430+4.66551I$	0
$u=-0.10924-1.63954I$ $a=-0.659425+1.130220I$ $b=\ \ 0.474065-0.961082I$	$10.67430-4.66551I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.18327+1.63330I$ $a=-0.01989+1.66522I$ $b=\ 1.190990-0.711791I$	$14.3314+14.5071I$	0
$u=-0.18327-1.63330I$ $a=-0.01989-1.66522I$ $b=\ 1.190990+0.711791I$	$14.3314-14.5071I$	0
$u=\ 0.07202+1.64319I$ $a=-0.659313+1.211360I$ $b=\ 0.567494-0.917086I$	$11.37510-0.37143I$	0
$u=\ 0.07202-1.64319I$ $a=-0.659313-1.211360I$ $b=\ 0.567494+0.917086I$	$11.37510+0.37143I$	0
$u=-0.341237$ $a=\ 0.915714$ $b=\ 0.265068$	-0.572304	-17.1420
$u=\ 0.13087+1.65640I$ $a=-0.622798+1.098490I$ $b=\ 0.450328-1.030270I$	$16.6202-8.2151I$	0
$u=\ 0.13087-1.65640I$ $a=-0.622798-1.098490I$ $b=\ 0.450328+1.030270I$	$16.6202+8.2151I$	0
$u=\ 0.12532+1.66383I$ $a=-0.22258-1.58081I$ $b=\ 1.075030+0.800211I$	$16.7894-4.3149I$	0
$u=\ 0.12532-1.66383I$ $a=-0.22258+1.58081I$ $b=\ 1.075030-0.800211I$	$16.7894+4.3149I$	0
$u=-0.05538+1.68155I$ $a=-0.568584-1.235360I$ $b=\ 0.655457+0.988237I$	$18.0829-2.1627I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.05538 - 1.68155I$		
$a = -0.568584 + 1.235360I$	$18.0829 + 2.1627I$	0
$b = 0.655457 - 0.988237I$		

II. $I_2^u = \langle b+1,\ 4a^3+2a^2u+u,\ u^2+2\rangle$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 4au-12$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.414210I$ $a = 0.526697 - 0.620443I$ $b = -1.00000$	$6.31400 - 2.82812I$	$-8.49024 + 2.97945I$
$u = 1.414210I$ $a = -0.526697 - 0.620443I$ $b = -1.00000$	$6.31400 + 2.82812I$	$-8.49024 - 2.97945I$
$u = 1.414210I$ $a = 0.533779I$ $b = -1.00000$	2.17641	-15.0200
$u = -1.414210I$ $a = 0.526697 + 0.620443I$ $b = -1.00000$	$6.31400 + 2.82812I$	$-8.49024 - 2.97945I$
$u = -1.414210I$ $a = -0.526697 + 0.620443I$ $b = -1.00000$	$6.31400 - 2.82812I$	$-8.49024 + 2.97945I$
$u = -1.414210I$ $a = -0.533779I$ $b = -1.00000$	2.17641	-15.0200

III. $I_1^v = \langle a,\ b-1,\ v^3 - v^2 + 1\rangle$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 2v^2 + 2v - 14$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$v = 0.877439 + 0.744862I$ $a = 0$ $b = 1.00000$	$1.37919 - 2.82812I$	$-11.81496 + 4.10401I$
$v = 0.877439 - 0.744862I$ $a = 0$ $b = 1.00000$	$1.37919 + 2.82812I$	$-11.81496 - 4.10401I$
$v = -0.754878$ $a = 0$ $b = 1.00000$	-2.75839	-14.3700

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^9)(u^{71}+32u^{70}+\cdots+7410u+289)$
c_2	$((u-1)^3)(u+1)^6(u^{71}+4u^{70}+\cdots+44u+17)$
c_3, c_4, c_8 c_9	$u^3(u^2+2)^3(u^{71}+u^{70}+\cdots+32u+8)$
c_5	$((u-1)^6)(u+1)^3(u^{71}+4u^{70}+\cdots+44u+17)$
c_6	$((u^3-u^2+1)^2)(u^3+u^2-1)(u^{71}-2u^{70}+\cdots+3285u+1443)$
c_7	$(u^3-u^2+2u-1)(u^3+u^2+2u+1)^2(u^{71}+2u^{70}+\cdots+9u+3)$
c_{10}	$((u^3+u^2-1)^3)(u^{71}-14u^{70}+\cdots-72303u+12843)$
c_{11}, c_{12}	$((u^3-u^2+2u-1)^2)(u^3+u^2+2u+1)(u^{71}+2u^{70}+\cdots+9u+3)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^9)(y^{71}+24y^{70}+\cdots+1.62439\times 10^7 y-83521)$
c_2, c_5	$((y-1)^9)(y^{71}-32y^{70}+\cdots+7410y-289)$
c_3, c_4, c_8 c_9	$y^3(y+2)^6(y^{71}+85y^{70}+\cdots-896y-64)$
c_6	$((y^3-y^2+2y-1)^3)(y^{71}+10y^{70}+\cdots-7912941y-2082249)$
c_7, c_{11}, c_{12}	$((y^3+3y^2+2y-1)^3)(y^{71}+66y^{70}+\cdots+147y-9)$
c_{10}	$((y^3-y^2+2y-1)^3)(y^{71}+34y^{70}+\cdots+3.81726\times 10^8 y-1.64943\times 10^8)$