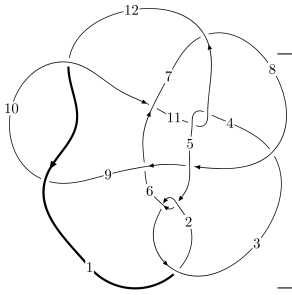
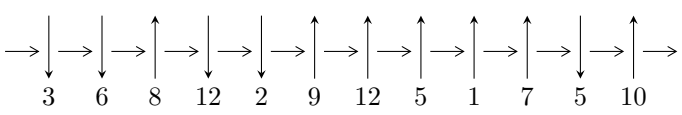
$12n_{0408}$ $(K12n_{0408})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 3.32134 \times 10^{359} u^{70} - 4.44408 \times 10^{359} u^{69} + \cdots + 2.07193 \times 10^{364} b - 6.03914 \times 10^{363}, \\ & - 2.44678 \times 10^{364} u^{70} + 4.95782 \times 10^{364} u^{69} + \cdots + 1.09626 \times 10^{368} a + 4.70274 \times 10^{368}, \\ & u^{71} - 2u^{70} + \cdots - 50760u + 5291 \rangle \\ I_2^u = \langle & -1.01666 \times 10^{17} u^{20} - 3.63265 \times 10^{17} u^{19} + \cdots + 1.76908 \times 10^{18} b - 7.59833 \times 10^{17}, \\ & - 2.78942 \times 10^{18} u^{20} - 2.28690 \times 10^{18} u^{19} + \cdots + 5.30723 \times 10^{18} a - 3.58565 \times 10^{18}, \ u^{21} + u^{20} + \cdots + u + 3 \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 92 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. $\boldsymbol{I_1^u = \langle 3.32 \times 10^{359} u^{70} - 4.44 \times 10^{359} u^{69} + \cdots + 2.07 \times 10^{364} b - 6.04 \times 10^{363},\ -2.45 \times 10^{364} u^{70} + 4.96 \times 10^{364} u^{69} + \cdots + 1.10 \times 10^{368} a + 4.70 \times 10^{368},\ u^{71} - 2u^{70} + \cdots - 50760u + 5291 \rangle}$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.000223193u^{70} - 0.000452249u^{69} + \cdots + 29.0701u - 4.28980 \\ -0.0000160301u^{70} + 0.0000214489u^{69} + \cdots + 1.55560u + 0.291474 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.000108414u^{70} + 0.000231215u^{69} + \cdots - 26.9057u + 3.05037 \\ 0.0000349665u^{70} - 0.0000665424u^{69} + \cdots - 0.330042u + 0.239270 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.000223193u^{70} - 0.000452249u^{69} + \cdots + 29.0701u - 4.28980 \\ -4.77057 \times 10^{-6} u^{70} - 4.55792 \times 10^{-6} u^{69} + \cdots + 3.03409u + 0.260456 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.000239223u^{70} - 0.000473698u^{69} + \cdots + 27.5145u - 4.58128 \\ -4.53515 \times 10^{-6} u^{70} - 5.71553 \times 10^{-6} u^{69} + \cdots + 2.58027u + 0.316601 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.0000654430u^{70} + 0.000121036u^{69} + \cdots + 2.03966u + 1.27408 \\ -0.0000373474u^{70} + 0.0000850284u^{69} + \cdots - 4.95248u + 0.211483 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.000128361u^{70} - 0.000267216u^{69} + \cdots + 30.3146u - 3.65679 \\ -0.0000243416u^{70} + 0.0000407389u^{69} + \cdots - 2.19710u + 0.550891 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.0000513840u^{70} + 0.0000471219u^{69} + \cdots + 9.13849u - 0.0700090 \\ -0.0000138702u^{70} + 0.0000242156u^{69} + \cdots + 7.00547u - 0.868044 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.0000375138u^{70} + 0.0000229063u^{69} + \cdots + 2.13303u + 0.798035 \\ -0.0000138702u^{70} + 0.0000242156u^{69} + \cdots + 7.00547u - 0.868044 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.000128274u^{70} + 0.000225121u^{69} + \cdots + 9.96795u - 1.80594 \\ -0.0000358515u^{70} + 0.0000911766u^{69} + \cdots - 9.35995u + 0.946339 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.0000814784u^{70} - 0.000121110u^{69} + \cdots - 8.51691u - 4.14593$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{71} + 34u^{70} + \cdots + 99u + 1$
c_2, c_5	$u^{71} + 6u^{70} + \cdots + 3u - 1$
c_3	$u^{71} + 3u^{70} + \cdots + 3403u - 821$
c_4, c_{11}	$u^{71} + 2u^{70} + \cdots + 8576u - 1849$
c_6	$u^{71} + 18u^{70} + \cdots - 3847u - 341$
c_7	$u^{71} + 2u^{70} + \cdots - 50760u - 5291$
c_8	$u^{71} - 3u^{70} + \cdots - 921625u - 136291$
c_9, c_{12}	$u^{71} + 7u^{70} + \cdots - 836u - 53$
c_{10}	$u^{71} - 4u^{70} + \cdots - 12683514u - 12102611$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{71} + 22y^{70} + \cdots + 7631y - 1$
c_2, c_5	$y^{71} - 34y^{70} + \cdots + 99y - 1$
c_3	$y^{71} + 107y^{70} + \cdots - 25018129y - 674041$
c_4, c_{11}	$y^{71} - 96y^{70} + \cdots + 156138908y - 3418801$
c_6	$y^{71} + 8y^{70} + \cdots - 3768041y - 116281$
c_7	$y^{71} + 96y^{70} + \cdots - 99726602y - 27994681$
c_8	$y^{71} + 31y^{70} + \cdots - 411466202141y - 18575236681$
c_9, c_{12}	$y^{71} + 51y^{70} + \cdots + 6292y - 2809$
c_{10}	$y^{71} + 58y^{70} + \cdots - 4549217659521294y - 146473193017321$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.580765 + 0.835800I$ $a = -0.292777 - 0.451256I$ $b = 0.282543 + 0.413279I$	$-4.96899 + 3.96926I$	$0. - 7.49324I$
$u = 0.580765 - 0.835800I$ $a = -0.292777 + 0.451256I$ $b = 0.282543 - 0.413279I$	$-4.96899 - 3.96926I$	$0. + 7.49324I$
$u = -0.788689 + 0.650257I$ $a = 0.878827 - 0.718311I$ $b = -0.098470 - 0.332871I$	$1.02161 + 2.87191I$	0
$u = -0.788689 - 0.650257I$ $a = 0.878827 + 0.718311I$ $b = -0.098470 + 0.332871I$	$1.02161 - 2.87191I$	0
$u = -1.102090 + 0.196980I$ $a = -0.565213 - 0.502463I$ $b = -0.181280 - 0.585679I$	$1.32872 - 1.06319I$	0
$u = -1.102090 - 0.196980I$ $a = -0.565213 + 0.502463I$ $b = -0.181280 + 0.585679I$	$1.32872 + 1.06319I$	0
$u = -0.644955 + 0.431962I$ $a = -0.131388 - 0.611300I$ $b = 1.44716 + 0.73868I$	$-1.87321 + 8.07778I$	$-2.27368 - 4.02394I$
$u = -0.644955 - 0.431962I$ $a = -0.131388 + 0.611300I$ $b = 1.44716 - 0.73868I$	$-1.87321 - 8.07778I$	$-2.27368 + 4.02394I$
$u = -1.219390 + 0.158809I$ $a = 0.605127 - 0.575176I$ $b = -0.018267 - 0.533663I$	$0.46636 - 2.54570I$	0
$u = -1.219390 - 0.158809I$ $a = 0.605127 + 0.575176I$ $b = -0.018267 + 0.533663I$	$0.46636 + 2.54570I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.338847 + 0.652992I$ $a = 2.05956 + 0.00269I$ $b = 0.322023 + 0.276626I$	$-2.65434 - 8.89707I$	$-3.34744 + 5.99725I$
$u = 0.338847 - 0.652992I$ $a = 2.05956 - 0.00269I$ $b = 0.322023 - 0.276626I$	$-2.65434 + 8.89707I$	$-3.34744 - 5.99725I$
$u = -0.413420 + 0.603171I$ $a = -1.19312 + 0.91314I$ $b = 0.013449 + 0.272129I$	$2.09910 - 1.55037I$	$2.13059 + 4.88188I$
$u = -0.413420 - 0.603171I$ $a = -1.19312 - 0.91314I$ $b = 0.013449 - 0.272129I$	$2.09910 + 1.55037I$	$2.13059 - 4.88188I$
$u = -0.206337 + 1.264600I$ $a = 0.87744 + 1.44981I$ $b = 0.97694 + 2.04446I$	$-7.83303 - 3.23562I$	0
$u = -0.206337 - 1.264600I$ $a = 0.87744 - 1.44981I$ $b = 0.97694 - 2.04446I$	$-7.83303 + 3.23562I$	0
$u = -0.495470 + 0.518548I$ $a = -0.309042 + 0.617419I$ $b = -1.36002 - 0.62813I$	$0.29797 + 2.50456I$	$0.701081 - 0.103219I$
$u = -0.495470 - 0.518548I$ $a = -0.309042 - 0.617419I$ $b = -1.36002 + 0.62813I$	$0.29797 - 2.50456I$	$0.701081 + 0.103219I$
$u = 0.659094 + 0.234693I$ $a = -0.688554 + 0.725722I$ $b = 0.061050 - 0.639663I$	$-1.59434 + 1.80020I$	$0.62667 - 4.98436I$
$u = 0.659094 - 0.234693I$ $a = -0.688554 - 0.725722I$ $b = 0.061050 + 0.639663I$	$-1.59434 - 1.80020I$	$0.62667 + 4.98436I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.184729 + 0.633390I$ $a = -2.09854 + 0.37802I$ $b = -0.435861 - 0.070705I$	$-0.19378 - 3.46779I$	$-1.36386 + 2.69751I$
$u = 0.184729 - 0.633390I$ $a = -2.09854 - 0.37802I$ $b = -0.435861 + 0.070705I$	$-0.19378 + 3.46779I$	$-1.36386 - 2.69751I$
$u = 0.155035 + 1.339750I$ $a = 0.03561 - 1.62777I$ $b = -0.35185 - 2.24462I$	$-6.17756 + 4.77517I$	0
$u = 0.155035 - 1.339750I$ $a = 0.03561 + 1.62777I$ $b = -0.35185 + 2.24462I$	$-6.17756 - 4.77517I$	0
$u = -0.645433$ $a = -0.542319$ $b = -0.377916$	1.01771	11.3920
$u = 1.270820 + 0.486913I$ $a = -0.482541 + 0.074369I$ $b = 0.453419 - 0.446420I$	$-1.12010 + 3.38645I$	0
$u = 1.270820 - 0.486913I$ $a = -0.482541 - 0.074369I$ $b = 0.453419 + 0.446420I$	$-1.12010 - 3.38645I$	0
$u = 1.027510 + 0.932024I$ $a = 0.338936 + 0.076836I$ $b = -0.448741 + 0.004535I$	$-4.73552 + 1.86861I$	0
$u = 1.027510 - 0.932024I$ $a = 0.338936 - 0.076836I$ $b = -0.448741 - 0.004535I$	$-4.73552 - 1.86861I$	0
$u = 0.045687 + 0.585291I$ $a = -0.191858 + 0.636762I$ $b = 1.130060 - 0.314443I$	$0.83945 - 5.04601I$	$-0.72754 + 7.42828I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.045687 - 0.585291I$ $a = -0.191858 - 0.636762I$ $b = 1.130060 + 0.314443I$	$0.83945 + 5.04601I$	$-0.72754 - 7.42828I$
$u = -0.184861 + 0.554459I$ $a = -0.189001 - 0.545144I$ $b = -1.084770 + 0.040106I$	$2.19151 - 0.19769I$	$2.21273 + 1.68853I$
$u = -0.184861 - 0.554459I$ $a = -0.189001 + 0.545144I$ $b = -1.084770 - 0.040106I$	$2.19151 + 0.19769I$	$2.21273 - 1.68853I$
$u = 0.09305 + 1.45285I$ $a = -0.277047 + 1.109460I$ $b = -0.01604 + 1.70541I$	$-3.73297 - 1.70076I$	0
$u = 0.09305 - 1.45285I$ $a = -0.277047 - 1.109460I$ $b = -0.01604 - 1.70541I$	$-3.73297 + 1.70076I$	0
$u = 0.43800 + 1.46752I$ $a = 0.460286 - 0.948050I$ $b = -0.05146 - 1.72191I$	$-5.23559 + 3.76380I$	0
$u = 0.43800 - 1.46752I$ $a = 0.460286 + 0.948050I$ $b = -0.05146 + 1.72191I$	$-5.23559 - 3.76380I$	0
$u = 1.44469 + 0.67653I$ $a = 0.461376 + 0.000212I$ $b = -0.610829 + 0.359999I$	$-2.82185 + 8.13246I$	0
$u = 1.44469 - 0.67653I$ $a = 0.461376 - 0.000212I$ $b = -0.610829 - 0.359999I$	$-2.82185 - 8.13246I$	0
$u = 0.222485 + 0.329255I$ $a = -0.22314 - 2.06764I$ $b = 0.103952 + 0.761599I$	$-3.63364 - 2.57307I$	$-2.03072 + 1.09466I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.222485 - 0.329255I$ $a = -0.22314 + 2.06764I$ $b = 0.103952 - 0.761599I$	$-3.63364 + 2.57307I$	$-2.03072 - 1.09466I$
$u = -0.036076 + 0.328318I$ $a = 2.77493 - 2.15222I$ $b = 0.956928 + 0.554431I$	$-6.09160 - 0.21690I$	$-5.79568 - 0.48270I$
$u = -0.036076 - 0.328318I$ $a = 2.77493 + 2.15222I$ $b = 0.956928 - 0.554431I$	$-6.09160 + 0.21690I$	$-5.79568 + 0.48270I$
$u = 0.14109 + 1.71542I$ $a = -0.103585 - 0.983039I$ $b = 0.41054 - 1.70085I$	$-8.85568 - 1.19614I$	0
$u = 0.14109 - 1.71542I$ $a = -0.103585 + 0.983039I$ $b = 0.41054 + 1.70085I$	$-8.85568 + 1.19614I$	0
$u = 0.50453 + 1.64767I$ $a = -0.021638 + 1.079040I$ $b = -0.31773 + 1.57830I$	$-11.19700 + 2.71939I$	0
$u = 0.50453 - 1.64767I$ $a = -0.021638 - 1.079040I$ $b = -0.31773 - 1.57830I$	$-11.19700 - 2.71939I$	0
$u = -0.33964 + 1.69087I$ $a = -0.270789 - 0.811108I$ $b = 0.63080 - 1.85770I$	$-8.42379 - 1.34719I$	0
$u = -0.33964 - 1.69087I$ $a = -0.270789 + 0.811108I$ $b = 0.63080 + 1.85770I$	$-8.42379 + 1.34719I$	0
$u = -0.38005 + 1.74334I$ $a = -0.004059 + 1.047000I$ $b = -0.14824 + 1.70632I$	$-4.48823 - 4.63881I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.38005-1.74334I$ $a=-0.004059-1.047000I$ $b=-0.14824-1.70632I$	$-4.48823+4.63881I$	0
$u=\ 0.144380+0.082580I$ $a=-2.20673+2.28717I$ $b=\ 0.462774-0.516661I$	$-1.49223+0.50005I$	$-5.24006-0.19978I$
$u=\ 0.144380-0.082580I$ $a=-2.20673-2.28717I$ $b=\ 0.462774+0.516661I$	$-1.49223-0.50005I$	$-5.24006+0.19978I$
$u=\ 0.20850+1.82203I$ $a=\ 0.081777+1.082370I$ $b=\ 0.40590+2.02173I$	$-15.0313+6.8617I$	0
$u=\ 0.20850-1.82203I$ $a=\ 0.081777-1.082370I$ $b=\ 0.40590-2.02173I$	$-15.0313-6.8617I$	0
$u=\ 0.45176+1.83563I$ $a=\ 0.042954-1.024460I$ $b=-0.39692-2.03294I$	$-8.94192+10.31780I$	0
$u=\ 0.45176-1.83563I$ $a=\ 0.042954+1.024460I$ $b=-0.39692+2.03294I$	$-8.94192-10.31780I$	0
$u=-0.50536+1.86907I$ $a=-0.039033-1.008760I$ $b=\ 0.17763-1.71497I$	$-6.53854-9.81945I$	0
$u=-0.50536-1.86907I$ $a=-0.039033+1.008760I$ $b=\ 0.17763+1.71497I$	$-6.53854+9.81945I$	0
$u=-0.09707+1.98496I$ $a=\ 0.057879-0.937148I$ $b=\ 0.14717-1.77957I$	$-9.48997-2.54176I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.09707-1.98496I$ $a=\ 0.057879+0.937148I$ $b=\ 0.14717+1.77957I$	$-9.48997+2.54176I$	0
$u=\ 0.49330+1.95007I$ $a=-0.031263+0.967843I$ $b=\ 0.39373+2.03998I$	$-11.4134+16.1003I$	0
$u=\ 0.49330-1.95007I$ $a=-0.031263-0.967843I$ $b=\ 0.39373-2.03998I$	$-11.4134-16.1003I$	0
$u=-0.67907+1.94610I$ $a=\ 0.247969+0.639732I$ $b=-0.72680+2.09501I$	$-10.02920-5.17198I$	0
$u=-0.67907-1.94610I$ $a=\ 0.247969-0.639732I$ $b=-0.72680-2.09501I$	$-10.02920+5.17198I$	0
$u=\ 0.34344+2.04434I$ $a=-0.025252+0.944078I$ $b=-0.25012+1.70609I$	$-11.65100-4.31172I$	0
$u=\ 0.34344-2.04434I$ $a=-0.025252-0.944078I$ $b=-0.25012-1.70609I$	$-11.65100+4.31172I$	0
$u=\ 0.00982+2.14846I$ $a=\ 0.009145-0.765336I$ $b=\ 0.24624-1.99478I$	$-9.17505-2.02606I$	0
$u=\ 0.00982-2.14846I$ $a=\ 0.009145+0.765336I$ $b=\ 0.24624+1.99478I$	$-9.17505+2.02606I$	0
$u=-0.34232+2.31471I$ $a=\ 0.089041+0.645209I$ $b=-0.43595+2.20178I$	$-10.43290+1.02273I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.34232-2.31471I$		
$a=\ \ 0.089041-0.645209I$	$-10.43290-1.02273I$	0
$b=-0.43595-2.20178I$		

II.

$\boldsymbol{I_2^u = \langle -1.02\times 10^{17}u^{20} - 3.63\times 10^{17}u^{19} + \cdots + 1.77\times 10^{18}b - 7.60\times 10^{17},\ -2.79\times 10^{18}u^{20} - 2.29\times 10^{18}u^{19} + \cdots + 5.31\times 10^{18}a - 3.59\times 10^{18},\ u^{21} + u^{20} + \cdots + u + 3\rangle}$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.525589u^{20} + 0.430902u^{19} + \cdots - 3.87934u + 0.675616 \\ 0.0574685u^{20} + 0.205341u^{19} + \cdots - 0.674948u + 0.429508 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.639678u^{20} - 0.519629u^{19} + \cdots + 3.71273u + 0.974140 \\ -0.198195u^{20} - 0.215992u^{19} + \cdots + 1.23162u - 0.765561 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.525589u^{20} + 0.430902u^{19} + \cdots - 3.87934u + 0.675616 \\ 0.0333158u^{20} + 0.195091u^{19} + \cdots + 0.807132u + 0.145445 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.468121u^{20} + 0.225560u^{19} + \cdots - 3.20440u + 0.246108 \\ 0.0242084u^{20} + 0.247013u^{19} + \cdots + 0.486854u - 0.298173 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.243288u^{20} + 0.0876454u^{19} + \cdots - 1.24949u - 0.505262 \\ 0.414187u^{20} + 0.520712u^{19} + \cdots - 2.89587u - 0.0634637 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.296423u^{20} + 0.0723191u^{19} + \cdots - 1.42924u - 0.964066 \\ 0.265495u^{20} + 0.472573u^{19} + \cdots - 1.61833u - 0.682384 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.327392u^{20} - 0.257031u^{19} + \cdots - 1.30080u - 0.247004 \\ 0.0570984u^{20} + 0.205606u^{19} + \cdots - 0.525634u - 1.70795 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.384491u^{20} - 0.462637u^{19} + \cdots - 0.775171u + 1.46095 \\ 0.0570984u^{20} + 0.205606u^{19} + \cdots - 0.525634u - 1.70795 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.717824u^{20} + 0.795971u^{19} + \cdots - 5.55816u - 2.12761 \\ -0.148508u^{20} - 0.169556u^{19} + \cdots + 2.76505u + 1.17130 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{2705003835397264499}{1769077763043388471}u^{20} - \frac{2258477885563098772}{1769077763043388471}u^{19} + \cdots + \frac{11494347706283494126}{1769077763043388471}u + \frac{15960298128399919686}{1769077763043388471}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{21} - 11u^{20} + \cdots + 88u - 9$
c_2	$u^{21} + u^{20} + \cdots - 4u - 3$
c_3	$u^{21} - 2u^{20} + \cdots + 10u + 5$
c_4	$u^{21} - u^{20} + \cdots - 3u + 1$
c_5	$u^{21} - u^{20} + \cdots - 4u + 3$
c_6	$u^{21} + u^{20} + \cdots + 8u^2 + 1$
c_7	$u^{21} + u^{20} + \cdots + u + 3$
c_8	$u^{21} + 2u^{20} + \cdots - 8u^2 - 1$
c_9	$u^{21} + 6u^{20} + \cdots + 45u + 5$
c_{10}	$u^{21} + 3u^{20} + \cdots + 7u - 1$
c_{11}	$u^{21} + u^{20} + \cdots - 3u - 1$
c_{12}	$u^{21} - 6u^{20} + \cdots + 45u - 5$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{21} + 13y^{20} + \cdots + 184y - 81$
c_2, c_5	$y^{21} - 11y^{20} + \cdots + 88y - 9$
c_3	$y^{21} + 22y^{20} + \cdots + 840y - 25$
c_4, c_{11}	$y^{21} - 17y^{20} + \cdots - 3y - 1$
c_6	$y^{21} - 5y^{20} + \cdots - 16y - 1$
c_7	$y^{21} + 19y^{20} + \cdots + 115y - 9$
c_8	$y^{21} + 6y^{20} + \cdots - 16y - 1$
c_9, c_{12}	$y^{21} + 14y^{20} + \cdots + 265y - 25$
c_{10}	$y^{21} + 9y^{20} + \cdots + 7y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.017760+0.164191I$ $a=\ \ 0.019420-0.728210I$ $b=-0.217020-0.758452I$	$0.01218-1.44237I$	$-3.57616+0.36303I$
$u=-1.017760-0.164191I$ $a=\ \ 0.019420+0.728210I$ $b=-0.217020+0.758452I$	$0.01218+1.44237I$	$-3.57616-0.36303I$
$u=-0.667983+0.500875I$ $a=\ \ 0.264507-0.993663I$ $b=-0.740886-0.591101I$	$1.64283+4.02770I$	$3.16447-4.97726I$
$u=-0.667983-0.500875I$ $a=\ \ 0.264507+0.993663I$ $b=-0.740886+0.591101I$	$1.64283-4.02770I$	$3.16447+4.97726I$
$u=\ \ 0.954936+0.692254I$ $a=\ \ 0.072870-0.298348I$ $b=-0.378423-0.311339I$	$-4.60032+2.49760I$	$0.02822-6.06015I$
$u=\ \ 0.954936-0.692254I$ $a=\ \ 0.072870+0.298348I$ $b=-0.378423+0.311339I$	$-4.60032-2.49760I$	$0.02822+6.06015I$
$u=-0.811685$ $a=\ \ 0.881305$ $b=\ \ 0.180005$	0.358951	-3.34010
$u=\ \ 0.755182+0.080789I$ $a=\ \ 0.423871-1.018030I$ $b=-1.089450-0.150699I$	$-0.92163+9.19955I$	$2.77433-8.25516I$
$u=\ \ 0.755182-0.080789I$ $a=\ \ 0.423871+1.018030I$ $b=-1.089450+0.150699I$	$-0.92163-9.19955I$	$2.77433+8.25516I$
$u=\ \ 0.311855+1.336120I$ $a=-0.607669+0.987511I$ $b=-0.69526+1.74117I$	$-7.42230+2.81144I$	$-2.33733+0.74449I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.311855 - 1.336120I$ $a = -0.607669 - 0.987511I$ $b = -0.69526 - 1.74117I$	$-7.42230 - 2.81144I$	$-2.33733 - 0.74449I$
$u = -0.271251 + 1.356350I$ $a = -0.46017 - 1.35418I$ $b = 0.12651 - 1.96996I$	$-6.42306 - 4.13848I$	$-5.49167 + 2.04959I$
$u = -0.271251 - 1.356350I$ $a = -0.46017 + 1.35418I$ $b = 0.12651 + 1.96996I$	$-6.42306 + 4.13848I$	$-5.49167 - 2.04959I$
$u = -0.468317 + 0.327808I$ $a = -0.17804 + 1.48507I$ $b = 0.762786 + 0.342701I$	$2.92449 - 0.74097I$	$7.31939 + 1.52438I$
$u = -0.468317 - 0.327808I$ $a = -0.17804 - 1.48507I$ $b = 0.762786 - 0.342701I$	$2.92449 + 0.74097I$	$7.31939 - 1.52438I$
$u = 0.474570 + 0.190158I$ $a = -0.01766 + 1.77843I$ $b = 1.076620 + 0.036349I$	$1.07014 + 3.68507I$	$5.59024 - 4.51475I$
$u = 0.474570 - 0.190158I$ $a = -0.01766 - 1.77843I$ $b = 1.076620 - 0.036349I$	$1.07014 - 3.68507I$	$5.59024 + 4.51475I$
$u = -0.23006 + 2.10695I$ $a = -0.158253 - 0.739024I$ $b = 0.46119 - 1.91480I$	$-9.48831 - 0.32291I$	$-3.90057 - 0.91919I$
$u = -0.23006 - 2.10695I$ $a = -0.158253 + 0.739024I$ $b = 0.46119 + 1.91480I$	$-9.48831 + 0.32291I$	$-3.90057 + 0.91919I$
$u = 0.06467 + 2.12010I$ $a = 0.033800 + 0.726331I$ $b = -0.39606 + 1.95200I$	$-9.87219 - 3.28291I$	$-3.90087 + 4.45768I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.06467 - 2.12010I$		
$a = \quad 0.033800 - 0.726331I$	$-9.87219 + 3.28291I$	$-3.90087 - 4.45768I$
$b = -0.39606 - 1.95200I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{21}-11u^{20}+\cdots+88u-9)(u^{71}+34u^{70}+\cdots+99u+1)$
c_2	$(u^{21}+u^{20}+\cdots-4u-3)(u^{71}+6u^{70}+\cdots+3u-1)$
c_3	$(u^{21}-2u^{20}+\cdots+10u+5)(u^{71}+3u^{70}+\cdots+3403u-821)$
c_4	$(u^{21}-u^{20}+\cdots-3u+1)(u^{71}+2u^{70}+\cdots+8576u-1849)$
c_5	$(u^{21}-u^{20}+\cdots-4u+3)(u^{71}+6u^{70}+\cdots+3u-1)$
c_6	$(u^{21}+u^{20}+\cdots+8u^2+1)(u^{71}+18u^{70}+\cdots-3847u-341)$
c_7	$(u^{21}+u^{20}+\cdots+u+3)(u^{71}+2u^{70}+\cdots-50760u-5291)$
c_8	$(u^{21}+2u^{20}+\cdots-8u^2-1)(u^{71}-3u^{70}+\cdots-921625u-136291)$
c_9	$(u^{21}+6u^{20}+\cdots+45u+5)(u^{71}+7u^{70}+\cdots-836u-53)$
c_{10}	$(u^{21}+3u^{20}+\cdots+7u-1)$ $\cdot(u^{71}-4u^{70}+\cdots-12683514u-12102611)$
c_{11}	$(u^{21}+u^{20}+\cdots-3u-1)(u^{71}+2u^{70}+\cdots+8576u-1849)$
c_{12}	$(u^{21}-6u^{20}+\cdots+45u-5)(u^{71}+7u^{70}+\cdots-836u-53)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{21}+13y^{20}+\cdots+184y-81)(y^{71}+22y^{70}+\cdots+7631y-1)$
c_2, c_5	$(y^{21}-11y^{20}+\cdots+88y-9)(y^{71}-34y^{70}+\cdots+99y-1)$
c_3	$(y^{21}+22y^{20}+\cdots+840y-25)$ $\cdot(y^{71}+107y^{70}+\cdots-25018129y-674041)$
c_4, c_{11}	$(y^{21}-17y^{20}+\cdots-3y-1)$ $\cdot(y^{71}-96y^{70}+\cdots+156138908y-3418801)$
c_6	$(y^{21}-5y^{20}+\cdots-16y-1)(y^{71}+8y^{70}+\cdots-3768041y-116281)$
c_7	$(y^{21}+19y^{20}+\cdots+115y-9)$ $\cdot(y^{71}+96y^{70}+\cdots-99726602y-27994681)$
c_8	$(y^{21}+6y^{20}+\cdots-16y-1)$ $\cdot(y^{71}+31y^{70}+\cdots-411466202141y-18575236681)$
c_9, c_{12}	$(y^{21}+14y^{20}+\cdots+265y-25)(y^{71}+51y^{70}+\cdots+6292y-2809)$
c_{10}	$(y^{21}+9y^{20}+\cdots+7y-1)$ $\cdot(y^{71}+58y^{70}+\cdots-4549217659521294y-146473193017321)$