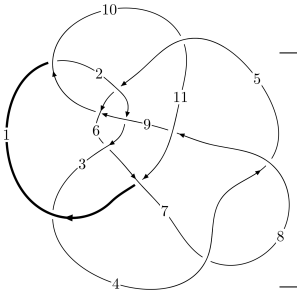
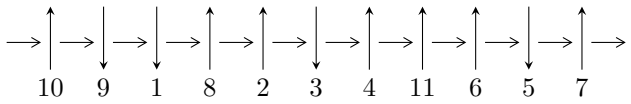
$11a_{267}$ $(K11a_{267})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 3.44670 \times 10^{407} u^{114} - 8.42803 \times 10^{407} u^{113} + \cdots + 1.19387 \times 10^{407} b - 2.77971 \times 10^{408}, \\ & - 9.47292 \times 10^{408} u^{114} + 2.83965 \times 10^{409} u^{113} + \cdots + 3.70100 \times 10^{408} a - 2.62544 \times 10^{410}, \\ & u^{115} - u^{114} + \cdots - 541u - 31 \rangle \\ I_2^u = \langle & -861785u^{19} - 14841113u^{18} + \cdots + 21120991b + 29316743, \\ & 17202656u^{19} + 68033143u^{18} + \cdots + 21120991a - 84886177,\ u^{20} + 2u^{19} + \cdots + 9u - 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 135 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. $\boldsymbol{I_1^u = \langle 3.45 \times 10^{407} u^{114} - 8.43 \times 10^{407} u^{113} + \cdots + 1.19 \times 10^{407} b - 2.78 \times 10^{408},\ -9.47 \times 10^{408} u^{114} + 2.84 \times 10^{409} u^{113} + \cdots + 3.70 \times 10^{408} a - 2.63 \times 10^{410},\ u^{115} - u^{114} + \cdots - 541u - 31 \rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

$$a_5 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 2.55956u^{114} - 7.67264u^{113} + \cdots + 860.734u + 70.9387 \\ -2.88700u^{114} + 7.05941u^{113} + \cdots + 545.327u + 23.2831 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1.35442u^{114} - 4.78591u^{113} + \cdots + 1006.67u + 76.1821 \\ -0.574110u^{114} + 2.15598u^{113} + \cdots - 667.441u - 53.4608 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.327442u^{114} - 0.613229u^{113} + \cdots + 1406.06u + 94.2218 \\ -2.88700u^{114} + 7.05941u^{113} + \cdots + 545.327u + 23.2831 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.149706u^{114} - 0.860592u^{113} + \cdots + 314.269u + 19.5982 \\ -3.86467u^{114} + 7.94980u^{113} + \cdots + 2027.33u + 124.487 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.639730u^{114} + 0.865923u^{113} + \cdots + 690.842u + 40.8469 \\ -3.05087u^{114} + 5.84910u^{113} + \cdots + 2187.57u + 143.045 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.745287u^{114} + 0.449774u^{113} + \cdots + 1257.74u + 86.8139 \\ 1.57302u^{114} - 3.23099u^{113} + \cdots - 751.386u - 45.9144 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.183301u^{114} - 1.96737u^{113} + \cdots + 1494.73u + 104.855 \\ -1.12054u^{114} + 3.53741u^{113} + \cdots - 548.015u - 45.9997 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.183301u^{114} - 1.96737u^{113} + \cdots + 1494.73u + 104.855 \\ -1.12054u^{114} + 3.53741u^{113} + \cdots - 548.015u - 45.9997 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -21.2534u^{114} + 34.5236u^{113} + \cdots + 23037.7u + 1611.82$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{115} - 5u^{114} + \cdots - 30u - 1$
c_2	$u^{115} - u^{114} + \cdots + 34u - 1$
c_3	$u^{115} + u^{114} + \cdots - 138u + 23$
c_4, c_7	$u^{115} + u^{114} + \cdots - 541u + 31$
c_5	$u^{115} - 5u^{114} + \cdots - 11u + 1$
c_6	$u^{115} - u^{114} + \cdots + 48u - 1$
c_8	$u^{115} - 3u^{114} + \cdots - 3684u + 691$
c_9	$u^{115} - 7u^{114} + \cdots + 2u + 1$
c_{10}	$u^{115} - u^{114} + \cdots + 668365u - 39479$
c_{11}	$u^{115} + u^{114} + \cdots - 5u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{115} - 15y^{114} + \cdots - 10y - 1$
c_2	$y^{115} - 9y^{114} + \cdots + 20y - 1$
c_3	$y^{115} + 13y^{114} + \cdots + 2346y - 529$
c_4, c_7	$y^{115} - 87y^{114} + \cdots + 12627y - 961$
c_5	$y^{115} - 3y^{114} + \cdots + y - 1$
c_6	$y^{115} - 31y^{114} + \cdots + 416y - 1$
c_8	$y^{115} - 31y^{114} + \cdots + 17763462y - 477481$
c_9	$y^{115} + 15y^{114} + \cdots + 62y - 1$
c_{10}	$y^{115} + 47y^{114} + \cdots - 11408069835y - 1558591441$
c_{11}	$y^{115} - 11y^{114} + \cdots + 139y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.991543 + 0.010287I$ $a = 0.508535 - 0.816617I$ $b = -0.337478 - 1.075160I$	$-0.82850 + 3.65420I$	0
$u = 0.991543 - 0.010287I$ $a = 0.508535 + 0.816617I$ $b = -0.337478 + 1.075160I$	$-0.82850 - 3.65420I$	0
$u = 0.812804 + 0.602814I$ $a = 0.505084 - 0.733259I$ $b = -0.095403 - 0.810136I$	$-2.33628 + 2.44376I$	0
$u = 0.812804 - 0.602814I$ $a = 0.505084 + 0.733259I$ $b = -0.095403 + 0.810136I$	$-2.33628 - 2.44376I$	0
$u = -0.957079 + 0.376972I$ $a = 1.019680 + 0.078149I$ $b = -0.996791 + 0.525819I$	$1.93159 - 0.86279I$	0
$u = -0.957079 - 0.376972I$ $a = 1.019680 - 0.078149I$ $b = -0.996791 - 0.525819I$	$1.93159 + 0.86279I$	0
$u = -0.866010 + 0.581201I$ $a = -0.748848 - 0.422099I$ $b = -0.1266320 - 0.0106676I$	$-0.17579 - 2.00781I$	0
$u = -0.866010 - 0.581201I$ $a = -0.748848 + 0.422099I$ $b = -0.1266320 + 0.0106676I$	$-0.17579 + 2.00781I$	0
$u = -1.009830 + 0.275630I$ $a = 2.55989 - 0.05597I$ $b = -0.110358 + 0.270869I$	$1.03851 - 9.43459I$	0
$u = -1.009830 - 0.275630I$ $a = 2.55989 + 0.05597I$ $b = -0.110358 - 0.270869I$	$1.03851 + 9.43459I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.654350+0.822893I$ $a=\ \ 0.039752-0.837771I$ $b=\ \ 0.364684-0.662893I$	$-1.04548-3.54916I$	0
$u=-0.654350-0.822893I$ $a=\ \ 0.039752+0.837771I$ $b=\ \ 0.364684+0.662893I$	$-1.04548+3.54916I$	0
$u=\ \ 0.854965+0.408531I$ $a=\ \ 1.37117-0.36061I$ $b=-0.088123-0.474534I$	$-2.08760+1.97298I$	0
$u=\ \ 0.854965-0.408531I$ $a=\ \ 1.37117+0.36061I$ $b=-0.088123+0.474534I$	$-2.08760-1.97298I$	0
$u=\ \ 0.275294+0.889046I$ $a=\ \ 0.698660+0.085136I$ $b=\ \ 0.291141-0.776126I$	$-2.19346-0.70570I$	0
$u=\ \ 0.275294-0.889046I$ $a=\ \ 0.698660-0.085136I$ $b=\ \ 0.291141+0.776126I$	$-2.19346+0.70570I$	0
$u=-0.902830+0.162857I$ $a=-2.70664-1.47578I$ $b=\ \ 2.25087+0.51569I$	$1.21120-2.28663I$	0
$u=-0.902830-0.162857I$ $a=-2.70664+1.47578I$ $b=\ \ 2.25087-0.51569I$	$1.21120+2.28663I$	0
$u=-0.137593+1.074430I$ $a=\ \ 0.129795-0.128938I$ $b=-0.653973+0.864310I$	$-0.01097-5.35830I$	0
$u=-0.137593-1.074430I$ $a=\ \ 0.129795+0.128938I$ $b=-0.653973-0.864310I$	$-0.01097+5.35830I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.308600 + 0.849572I$ $a = -0.243421 - 0.593944I$ $b = -0.723220 + 0.939714I$	$-3.44636 - 5.96058I$	0
$u = 0.308600 - 0.849572I$ $a = -0.243421 + 0.593944I$ $b = -0.723220 - 0.939714I$	$-3.44636 + 5.96058I$	0
$u = -0.205734 + 0.872516I$ $a = 0.452734 + 0.306854I$ $b = -0.684720 + 0.478049I$	$1.32811 - 1.88479I$	0
$u = -0.205734 - 0.872516I$ $a = 0.452734 - 0.306854I$ $b = -0.684720 - 0.478049I$	$1.32811 + 1.88479I$	0
$u = -1.101040 + 0.131905I$ $a = -0.65244 - 1.83895I$ $b = 0.54445 + 2.23604I$	$3.19102 - 0.69517I$	0
$u = -1.101040 - 0.131905I$ $a = -0.65244 + 1.83895I$ $b = 0.54445 - 2.23604I$	$3.19102 + 0.69517I$	0
$u = 0.878512 + 0.105130I$ $a = -1.42337 - 1.48891I$ $b = 0.364225 + 0.315487I$	$-0.81168 + 4.16631I$	0
$u = 0.878512 - 0.105130I$ $a = -1.42337 + 1.48891I$ $b = 0.364225 - 0.315487I$	$-0.81168 - 4.16631I$	0
$u = -1.112850 + 0.088964I$ $a = -0.991103 + 0.634057I$ $b = 0.56594 - 1.81525I$	$2.21350 - 2.96493I$	0
$u = -1.112850 - 0.088964I$ $a = -0.991103 - 0.634057I$ $b = 0.56594 + 1.81525I$	$2.21350 + 2.96493I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.043484+1.130640I$ $a=\ \ 0.097159-0.136223I$ $b=\ \ 0.753283-0.768239I$	$-2.25517-5.21998I$	0
$u=-0.043484-1.130640I$ $a=\ \ 0.097159+0.136223I$ $b=\ \ 0.753283+0.768239I$	$-2.25517+5.21998I$	0
$u=-1.145370+0.066920I$ $a=-2.32279-0.05091I$ $b=\ \ 1.48761+0.62226I$	$4.68691-0.65371I$	0
$u=-1.145370-0.066920I$ $a=-2.32279+0.05091I$ $b=\ \ 1.48761-0.62226I$	$4.68691+0.65371I$	0
$u=-1.159990+0.027616I$ $a=\ \ 1.68922+0.83836I$ $b=-1.84593-1.40888I$	$2.47728-1.43112I$	0
$u=-1.159990-0.027616I$ $a=\ \ 1.68922-0.83836I$ $b=-1.84593+1.40888I$	$2.47728+1.43112I$	0
$u=\ \ 1.099630+0.379841I$ $a=\ \ 1.254640-0.178507I$ $b=-0.859565-1.072780I$	$0.15323+5.27402I$	0
$u=\ \ 1.099630-0.379841I$ $a=\ \ 1.254640+0.178507I$ $b=-0.859565+1.072780I$	$0.15323-5.27402I$	0
$u=\ \ 0.136316+1.159060I$ $a=-0.0827424+0.0263967I$ $b=\ \ 0.761399+0.913229I$	$-1.25637+13.65460I$	0
$u=\ \ 0.136316-1.159060I$ $a=-0.0827424-0.0263967I$ $b=\ \ 0.761399-0.913229I$	$-1.25637-13.65460I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.185510+0.058803I$ $a=\ \ 2.12111+0.99670I$ $b=-0.783967+0.535692I$	$3.53135-8.33125I$	0
$u=-1.185510-0.058803I$ $a=\ \ 2.12111-0.99670I$ $b=-0.783967-0.535692I$	$3.53135+8.33125I$	0
$u=\ \ 0.400510+0.699214I$ $a=\ \ 0.061836-0.296246I$ $b=-0.615551-1.062410I$	$-1.19029+5.19950I$	0
$u=\ \ 0.400510-0.699214I$ $a=\ \ 0.061836+0.296246I$ $b=-0.615551+1.062410I$	$-1.19029-5.19950I$	0
$u=\ \ 1.116430+0.425627I$ $a=-1.84195-0.13099I$ $b=\ \ 1.47207+1.13804I$	$-0.92457+10.59060I$	0
$u=\ \ 1.116430-0.425627I$ $a=-1.84195+0.13099I$ $b=\ \ 1.47207-1.13804I$	$-0.92457-10.59060I$	0
$u=\ \ 1.204520+0.150017I$ $a=\ \ 1.70724-0.88360I$ $b=-1.76915+1.28045I$	$3.91673+9.84311I$	0
$u=\ \ 1.204520-0.150017I$ $a=\ \ 1.70724+0.88360I$ $b=-1.76915-1.28045I$	$3.91673-9.84311I$	0
$u=-1.164230+0.361655I$ $a=\ \ 1.81924-0.40452I$ $b=-1.19638+1.09636I$	$-1.57902-1.36888I$	0
$u=-1.164230-0.361655I$ $a=\ \ 1.81924+0.40452I$ $b=-1.19638-1.09636I$	$-1.57902+1.36888I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.218180 + 0.162040I$ $a = -1.263140 - 0.379164I$ $b = 0.689860 - 0.298689I$	$4.77314 + 3.86367I$	0
$u = 1.218180 - 0.162040I$ $a = -1.263140 + 0.379164I$ $b = 0.689860 + 0.298689I$	$4.77314 - 3.86367I$	0
$u = 1.179790 + 0.359556I$ $a = 1.94816 - 0.11768I$ $b = -1.004010 - 0.898568I$	$0.14146 + 6.51555I$	0
$u = 1.179790 - 0.359556I$ $a = 1.94816 + 0.11768I$ $b = -1.004010 + 0.898568I$	$0.14146 - 6.51555I$	0
$u = 0.368048 + 1.182950I$ $a = 0.098770 - 0.132081I$ $b = -0.371732 - 0.850389I$	$-2.85359 + 3.71553I$	0
$u = 0.368048 - 1.182950I$ $a = 0.098770 + 0.132081I$ $b = -0.371732 + 0.850389I$	$-2.85359 - 3.71553I$	0
$u = 1.239750 + 0.145734I$ $a = -0.015726 - 0.918072I$ $b = -0.155319 - 0.394215I$	$5.14620 + 4.26050I$	0
$u = 1.239750 - 0.145734I$ $a = -0.015726 + 0.918072I$ $b = -0.155319 + 0.394215I$	$5.14620 - 4.26050I$	0
$u = 0.170606 + 0.730612I$ $a = 0.100838 - 0.379374I$ $b = 0.694941 - 0.936816I$	$-2.95739 - 2.49453I$	0
$u = 0.170606 - 0.730612I$ $a = 0.100838 + 0.379374I$ $b = 0.694941 + 0.936816I$	$-2.95739 + 2.49453I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.252020 + 0.015728I$ $a = -1.97667 + 0.05393I$ $b = 1.360930 + 0.378905I$	$6.73188 + 0.04543I$	0
$u = 1.252020 - 0.015728I$ $a = -1.97667 - 0.05393I$ $b = 1.360930 - 0.378905I$	$6.73188 - 0.04543I$	0
$u = 1.25526$ $a = -2.19495$ $b = 1.39740$	6.77454	0
$u = -0.173211 + 0.719426I$ $a = 0.170773 - 0.240816I$ $b = 0.447674 + 1.153010I$	$-4.61264 - 2.63225I$	0
$u = -0.173211 - 0.719426I$ $a = 0.170773 + 0.240816I$ $b = 0.447674 - 1.153010I$	$-4.61264 + 2.63225I$	0
$u = -1.28103$ $a = 1.09824$ $b = -1.22172$	2.35388	0
$u = -0.475295 + 0.537559I$ $a = -0.52869 + 1.58421I$ $b = 0.073938 + 0.877843I$	$-0.40050 + 6.08485I$	0
$u = -0.475295 - 0.537559I$ $a = -0.52869 - 1.58421I$ $b = 0.073938 - 0.877843I$	$-0.40050 - 6.08485I$	0
$u = 0.095002 + 1.282770I$ $a = -0.029256 + 0.145340I$ $b = 0.662463 - 0.011705I$	$2.71246 - 4.38038I$	0
$u = 0.095002 - 1.282770I$ $a = -0.029256 - 0.145340I$ $b = 0.662463 + 0.011705I$	$2.71246 + 4.38038I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.325480 + 0.048077I$ $a = 0.748840 + 0.692478I$ $b = -0.70013 - 1.55459I$	$5.74046 + 5.29797I$	0
$u = 1.325480 - 0.048077I$ $a = 0.748840 - 0.692478I$ $b = -0.70013 + 1.55459I$	$5.74046 - 5.29797I$	0
$u = -1.401880 + 0.095370I$ $a = -0.756643 + 0.586194I$ $b = 0.305149 - 0.027577I$	$3.62089 - 3.05575I$	0
$u = -1.401880 - 0.095370I$ $a = -0.756643 - 0.586194I$ $b = 0.305149 + 0.027577I$	$3.62089 + 3.05575I$	0
$u = 1.333280 + 0.452494I$ $a = -1.46579 + 0.29862I$ $b = 0.927646 + 0.745070I$	$5.87061 + 6.65094I$	0
$u = 1.333280 - 0.452494I$ $a = -1.46579 - 0.29862I$ $b = 0.927646 - 0.745070I$	$5.87061 - 6.65094I$	0
$u = -1.336940 + 0.450295I$ $a = 0.706402 + 0.191056I$ $b = -0.907202 + 0.163508I$	$2.46916 - 0.63828I$	0
$u = -1.336940 - 0.450295I$ $a = 0.706402 - 0.191056I$ $b = -0.907202 - 0.163508I$	$2.46916 + 0.63828I$	0
$u = 1.38981 + 0.31379I$ $a = -1.398940 - 0.174433I$ $b = 1.172570 + 0.515523I$	$5.68827 + 4.71363I$	0
$u = 1.38981 - 0.31379I$ $a = -1.398940 + 0.174433I$ $b = 1.172570 - 0.515523I$	$5.68827 - 4.71363I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.37435 + 0.51642I$ $a = 1.43016 - 0.01595I$ $b = -1.15763 - 1.15861I$	$2.21036 + 10.96440I$	0
$u = 1.37435 - 0.51642I$ $a = 1.43016 + 0.01595I$ $b = -1.15763 + 1.15861I$	$2.21036 - 10.96440I$	0
$u = 1.39263 + 0.48528I$ $a = -1.59503 - 0.15077I$ $b = 1.21931 + 1.04755I$	$4.76522 + 10.84950I$	0
$u = 1.39263 - 0.48528I$ $a = -1.59503 + 0.15077I$ $b = 1.21931 - 1.04755I$	$4.76522 - 10.84950I$	0
$u = -0.132701 + 0.504914I$ $a = 1.117730 - 0.359506I$ $b = -0.307263 + 0.660011I$	$0.65057 - 1.66192I$	$4.17531 + 3.71899I$
$u = -0.132701 - 0.504914I$ $a = 1.117730 + 0.359506I$ $b = -0.307263 - 0.660011I$	$0.65057 + 1.66192I$	$4.17531 - 3.71899I$
$u = -1.43357 + 0.36225I$ $a = -1.52335 + 0.42430I$ $b = 1.15823 - 1.30675I$	$4.53607 - 9.28091I$	0
$u = -1.43357 - 0.36225I$ $a = -1.52335 - 0.42430I$ $b = 1.15823 + 1.30675I$	$4.53607 + 9.28091I$	0
$u = -1.42625 + 0.46282I$ $a = 1.133850 + 0.182957I$ $b = -1.058260 + 0.748272I$	$7.89743 - 1.46963I$	0
$u = -1.42625 - 0.46282I$ $a = 1.133850 - 0.182957I$ $b = -1.058260 - 0.748272I$	$7.89743 + 1.46963I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.41708+0.51645I$ $a=\ \ 1.53423-0.09030I$ $b=-1.18740+1.17699I$	$3.6022-19.5158I$	0
$u=-1.41708-0.51645I$ $a=\ \ 1.53423+0.09030I$ $b=-1.18740-1.17699I$	$3.6022+19.5158I$	0
$u=\ \ 1.40857+0.55453I$ $a=\ \ 1.167640-0.205715I$ $b=-1.230240-0.603659I$	$7.15825+10.74020I$	0
$u=\ \ 1.40857-0.55453I$ $a=\ \ 1.167640+0.205715I$ $b=-1.230240+0.603659I$	$7.15825-10.74020I$	0
$u=\ \ 0.332655+0.287893I$ $a=\ \ 2.10614+0.19549I$ $b=\ \ 0.535927-0.169901I$	$-1.40763-1.80669I$	$-0.93148+2.38476I$
$u=\ \ 0.332655-0.287893I$ $a=\ \ 2.10614-0.19549I$ $b=\ \ 0.535927+0.169901I$	$-1.40763+1.80669I$	$-0.93148-2.38476I$
$u=-0.289404+0.327405I$ $a=\ \ 0.63999-2.61107I$ $b=\ \ 0.545394+0.616079I$	$0.83299-2.49990I$	$-0.635583-0.016341I$
$u=-0.289404-0.327405I$ $a=\ \ 0.63999+2.61107I$ $b=\ \ 0.545394-0.616079I$	$0.83299+2.49990I$	$-0.635583+0.016341I$
$u=-1.48251+0.51613I$ $a=-1.161050+0.188304I$ $b=\ \ 0.85486-1.15512I$	$2.79562-9.72471I$	0
$u=-1.48251-0.51613I$ $a=-1.161050-0.188304I$ $b=\ \ 0.85486+1.15512I$	$2.79562+9.72471I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.43586+0.64102I$ $a=-0.833352-0.250541I$ $b=\ \ 0.785988-0.142952I$	$4.41478-4.49926I$	0
$u=-1.43586-0.64102I$ $a=-0.833352+0.250541I$ $b=\ \ 0.785988+0.142952I$	$4.41478+4.49926I$	0
$u=-0.415759+0.020992I$ $a=-0.98873-2.31450I$ $b=-0.428334+0.697019I$	$0.24998-2.12560I$	$7.44801+3.30216I$
$u=-0.415759-0.020992I$ $a=-0.98873+2.31450I$ $b=-0.428334-0.697019I$	$0.24998+2.12560I$	$7.44801-3.30216I$
$u=-1.52092+0.64336I$ $a=-0.307608-0.253417I$ $b=\ \ 0.363826-0.113876I$	$3.70044-1.22861I$	0
$u=-1.52092-0.64336I$ $a=-0.307608+0.253417I$ $b=\ \ 0.363826+0.113876I$	$3.70044+1.22861I$	0
$u=-0.299694$ $a=\ \ 1.85828$ $b=-1.29376$	2.29026	25.4750
$u=\ \ 1.66955+0.33485I$ $a=-0.394656-0.458381I$ $b=\ \ 0.308345+0.709533I$	$1.36802+5.96391I$	0
$u=\ \ 1.66955-0.33485I$ $a=-0.394656+0.458381I$ $b=\ \ 0.308345-0.709533I$	$1.36802-5.96391I$	0
$u=-0.266690+0.046449I$ $a=\ \ 1.34337-1.05353I$ $b=-1.142450+0.020598I$	$2.28848+0.02392I$	$17.2666+1.1883I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.266690-0.046449I$ $a=\ \ 1.34337+1.05353I$ $b=-1.142450-0.020598I$	$2.28848-0.02392I$	$17.2666-1.1883I$
$u=-0.042104+0.186487I$ $a=-2.94551+5.69376I$ $b=\ \ 1.029660+0.237025I$	$0.32279-8.28648I$	$2.15800+6.43851I$
$u=-0.042104-0.186487I$ $a=-2.94551-5.69376I$ $b=\ \ 1.029660-0.237025I$	$0.32279+8.28648I$	$2.15800-6.43851I$
$u=\ \ 1.72997+0.85271I$ $a=\ \ 0.146912-0.203346I$ $b=-0.396146+0.098098I$	$2.59067-6.42913I$	0
$u=\ \ 1.72997-0.85271I$ $a=\ \ 0.146912+0.203346I$ $b=-0.396146-0.098098I$	$2.59067+6.42913I$	0

II.

$\boldsymbol{I_2^u = \langle -8.62\times 10^5 u^{19} - 1.48\times 10^7 u^{18} + \cdots + 2.11\times 10^7 b + 2.93\times 10^7,\ 1.72\times 10^7 u^{19} + 6.80\times 10^7 u^{18} + \cdots + 2.11\times 10^7 a - 8.49\times 10^7,\ u^{20} + 2u^{19} + \cdots + 9u - 1\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

$$a_5 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.814481u^{19} - 3.22112u^{18} + \cdots + 5.54281u + 4.01904 \\ 0.0408023u^{19} + 0.702671u^{18} + \cdots - 0.875885u - 1.38804 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1.58372u^{19} + 3.50600u^{18} + \cdots - 10.4039u + 8.22100 \\ -0.574978u^{19} - 1.06813u^{18} + \cdots + 8.33960u - 3.10784 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.773679u^{19} - 2.51844u^{18} + \cdots + 4.66693u + 2.63101 \\ 0.0408023u^{19} + 0.702671u^{18} + \cdots - 0.875885u - 1.38804 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.504514u^{19} + 0.149982u^{18} + \cdots - 8.64873u + 2.88952 \\ 0.536871u^{19} + 1.75347u^{18} + \cdots - 7.85110u + 0.530034 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -2.67442u^{19} - 5.56455u^{18} + \cdots + 17.0270u - 5.27925 \\ 0.557850u^{19} + 1.38250u^{18} + \cdots - 0.791952u + 0.864413 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1.57572u^{19} + 4.59178u^{18} + \cdots - 35.5101u + 6.20881 \\ -1.52561u^{19} - 4.68418u^{18} + \cdots + 16.5931u - 2.25081 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.166706u^{19} - 0.533248u^{18} + \cdots - 3.17854u + 5.03093 \\ 0.651144u^{19} + 2.18054u^{18} + \cdots - 4.04899u - 1.10164 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.166706u^{19} - 0.533248u^{18} + \cdots - 3.17854u + 5.03093 \\ 0.651144u^{19} + 2.18054u^{18} + \cdots - 4.04899u - 1.10164 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{244096937}{21120991}u^{19} + \frac{895901398}{21120991}u^{18} + \cdots - \frac{1690365755}{21120991}u - \frac{346104631}{21120991}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{20} - 6u^{19} + \cdots + 2u + 1$
c_2	$u^{20} - 6u^{18} + \cdots + 6u + 1$
c_3	$u^{20} + 4u^{19} + \cdots + 2u + 1$
c_4	$u^{20} - 2u^{19} + \cdots - 9u - 1$
c_5	$u^{20} - 2u^{19} + \cdots - u - 1$
c_6	$u^{20} - 2u^{19} + \cdots + 8u - 1$
c_7	$u^{20} + 2u^{19} + \cdots + 9u - 1$
c_8	$u^{20} + 6u^{19} + \cdots - 7u^2 + 1$
c_9	$u^{20} - 2u^{19} + \cdots + 4u - 1$
c_{10}	$u^{20} - 4u^{19} + \cdots - 3u + 1$
c_{11}	$u^{20} - 2u^{19} + \cdots - 5u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{20} - 14y^{19} + \cdots - 14y + 1$
c_2	$y^{20} - 12y^{19} + \cdots + 20y + 1$
c_3	$y^{20} - 2y^{19} + \cdots + 6y + 1$
c_4, c_7	$y^{20} - 18y^{19} + \cdots - 55y + 1$
c_5	$y^{20} + 10y^{19} + \cdots - 5y + 1$
c_6	$y^{20} - 2y^{19} + \cdots - 28y + 1$
c_8	$y^{20} - 14y^{19} + \cdots - 14y + 1$
c_9	$y^{20} + 4y^{19} + \cdots - 6y + 1$
c_{10}	$y^{20} + 8y^{19} + \cdots - 13y + 1$
c_{11}	$y^{20} - 6y^{19} + \cdots - 3y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.692160+0.744150I$ $a=-0.320459-0.958960I$ $b=\ \ 0.168384-0.744408I$	$-1.65711-2.96061I$	$-0.71565+3.69109I$
$u=-0.692160-0.744150I$ $a=-0.320459+0.958960I$ $b=\ \ 0.168384+0.744408I$	$-1.65711+2.96061I$	$-0.71565-3.69109I$
$u=\ \ 0.266975+0.940111I$ $a=-0.089914-0.224193I$ $b=-0.592240-0.859363I$	$-1.74507+4.46508I$	$0.88102-6.28026I$
$u=\ \ 0.266975-0.940111I$ $a=-0.089914+0.224193I$ $b=-0.592240+0.859363I$	$-1.74507-4.46508I$	$0.88102+6.28026I$
$u=-1.032290+0.211816I$ $a=\ \ 2.61241+0.75146I$ $b=-0.983800+0.054775I$	$1.83617-9.14635I$	$7.52738+8.39852I$
$u=-1.032290-0.211816I$ $a=\ \ 2.61241-0.75146I$ $b=-0.983800-0.054775I$	$1.83617+9.14635I$	$7.52738-8.39852I$
$u=\ \ 0.841202+0.152388I$ $a=\ \ 2.30275-1.93152I$ $b=-1.85553+0.89229I$	$1.17521+2.23291I$	$3.6997+58.8725I$
$u=\ \ 0.841202-0.152388I$ $a=\ \ 2.30275+1.93152I$ $b=-1.85553-0.89229I$	$1.17521-2.23291I$	$3.6997-58.8725I$
$u=\ \ 1.197550+0.212204I$ $a=-0.385430+0.955805I$ $b=\ \ 0.375917-1.294880I$	$2.99506+0.84547I$	$1.193245+0.488606I$
$u=\ \ 1.197550-0.212204I$ $a=-0.385430-0.955805I$ $b=\ \ 0.375917+1.294880I$	$2.99506-0.84547I$	$1.193245-0.488606I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.24034$ $a=-2.59197$ $b=\ \ 1.57569$	6.02419	7.53740
$u=\ \ 0.496142+0.296522I$ $a=-0.82750-1.70962I$ $b=-0.263211-0.847689I$	$-2.17976+4.02285I$	$-4.59414-6.39414I$
$u=\ \ 0.496142-0.296522I$ $a=-0.82750+1.70962I$ $b=-0.263211+0.847689I$	$-2.17976-4.02285I$	$-4.59414+6.39414I$
$u=-1.43906+0.45488I$ $a=-1.347880+0.251762I$ $b=\ \ 1.04685-1.17699I$	$3.60701-9.54940I$	$5.95378+8.39911I$
$u=-1.43906-0.45488I$ $a=-1.347880-0.251762I$ $b=\ \ 1.04685+1.17699I$	$3.60701+9.54940I$	$5.95378-8.39911I$
$u=\ \ 1.44669+0.50300I$ $a=-0.939535+0.106336I$ $b=\ \ 0.793347+0.205450I$	$4.37235+4.19669I$	$8.95096+4.21528I$
$u=\ \ 1.44669-0.50300I$ $a=-0.939535-0.106336I$ $b=\ \ 0.793347-0.205450I$	$4.37235-4.19669I$	$8.95096-4.21528I$
$u=-1.53866+0.46556I$ $a=\ \ 0.168090+0.009237I$ $b=\ \ 0.206684-0.178005I$	$2.32723+6.31534I$	$-0.90446-5.70657I$
$u=-1.53866-0.46556I$ $a=\ \ 0.168090-0.009237I$ $b=\ \ 0.206684+0.178005I$	$2.32723-6.31534I$	$-0.90446+5.70657I$
$u=\ \ 0.147575$ $a=\ \ 4.24690$ $b=-1.36848$	2.12247	-23.5210

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{20}-6u^{19}+\cdots+2u+1)(u^{115}-5u^{114}+\cdots-30u-1)$
c_2	$(u^{20}-6u^{18}+\cdots+6u+1)(u^{115}-u^{114}+\cdots+34u-1)$
c_3	$(u^{20}+4u^{19}+\cdots+2u+1)(u^{115}+u^{114}+\cdots-138u+23)$
c_4	$(u^{20}-2u^{19}+\cdots-9u-1)(u^{115}+u^{114}+\cdots-541u+31)$
c_5	$(u^{20}-2u^{19}+\cdots-u-1)(u^{115}-5u^{114}+\cdots-11u+1)$
c_6	$(u^{20}-2u^{19}+\cdots+8u-1)(u^{115}-u^{114}+\cdots+48u-1)$
c_7	$(u^{20}+2u^{19}+\cdots+9u-1)(u^{115}+u^{114}+\cdots-541u+31)$
c_8	$(u^{20}+6u^{19}+\cdots-7u^2+1)(u^{115}-3u^{114}+\cdots-3684u+691)$
c_9	$(u^{20}-2u^{19}+\cdots+4u-1)(u^{115}-7u^{114}+\cdots+2u+1)$
c_{10}	$(u^{20}-4u^{19}+\cdots-3u+1)(u^{115}-u^{114}+\cdots+668365u-39479)$
c_{11}	$(u^{20}-2u^{19}+\cdots-5u-1)(u^{115}+u^{114}+\cdots-5u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{20}-14y^{19}+\cdots-14y+1)(y^{115}-15y^{114}+\cdots-10y-1)$
c_2	$(y^{20}-12y^{19}+\cdots+20y+1)(y^{115}-9y^{114}+\cdots+20y-1)$
c_3	$(y^{20}-2y^{19}+\cdots+6y+1)(y^{115}+13y^{114}+\cdots+2346y-529)$
c_4, c_7	$(y^{20}-18y^{19}+\cdots-55y+1)(y^{115}-87y^{114}+\cdots+12627y-961)$
c_5	$(y^{20}+10y^{19}+\cdots-5y+1)(y^{115}-3y^{114}+\cdots+y-1)$
c_6	$(y^{20}-2y^{19}+\cdots-28y+1)(y^{115}-31y^{114}+\cdots+416y-1)$
c_8	$(y^{20}-14y^{19}+\cdots-14y+1)$ $\cdot(y^{115}-31y^{114}+\cdots+17763462y-477481)$
c_9	$(y^{20}+4y^{19}+\cdots-6y+1)(y^{115}+15y^{114}+\cdots+62y-1)$
c_{10}	$(y^{20}+8y^{19}+\cdots-13y+1)$ $\cdot(y^{115}+47y^{114}+\cdots-11408069835y-1558591441)$
c_{11}	$(y^{20}-6y^{19}+\cdots-3y+1)(y^{115}-11y^{114}+\cdots+139y-1)$