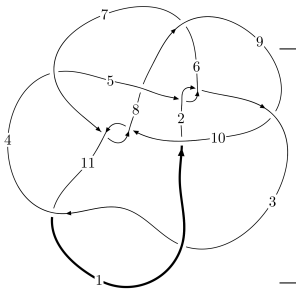
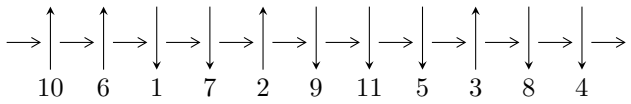
$11a_{303}$ ($K11a_{303}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -1.48808 \times 10^{308} u^{95} + 9.86759 \times 10^{308} u^{94} + \cdots + 4.90698 \times 10^{310} b + 6.42779 \times 10^{310}, \\ & - 1.38789 \times 10^{310} u^{95} + 6.29806 \times 10^{310} u^{94} + \cdots + 1.55551 \times 10^{313} a + 4.25558 \times 10^{313}, \\ & u^{96} - 6u^{95} + \cdots - 1182u + 317 \rangle \\ I_2^u = \langle & -1523509 u^{21} + 574654 u^{20} + \cdots + 551059 b + 558107, \\ & 477699 u^{21} + 1108403 u^{20} + \cdots + 551059 a + 2614941,\ u^{22} - u^{21} + \cdots - 7u + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 118 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. $\boldsymbol{I_1^u = \langle -1.49 \times 10^{308} u^{95} + 9.87 \times 10^{308} u^{94} + \cdots + 4.91 \times 10^{310} b + 6.43 \times 10^{310},\ -1.39 \times 10^{310} u^{95} + 6.30 \times 10^{310} u^{94} + \cdots + 1.56 \times 10^{313} a + 4.26 \times 10^{313},\ u^{96} - 6u^{95} + \cdots - 1182u + 317 \rangle}$

(i) Arc colorings

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

$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.000892242u^{95} - 0.00404887u^{94} + \cdots - 4.66373u - 2.73581 \\ 0.00303257u^{95} - 0.0201093u^{94} + \cdots + 1.71392u - 1.30993 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.00392481u^{95} - 0.0241582u^{94} + \cdots - 2.94981u - 4.04573 \\ 0.00303257u^{95} - 0.0201093u^{94} + \cdots + 1.71392u - 1.30993 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.00516595u^{95} + 0.0454676u^{94} + \cdots - 0.212600u - 0.834715 \\ 0.00767468u^{95} - 0.0509625u^{94} + \cdots + 10.9615u - 2.31606 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.000339483u^{95} + 0.0120803u^{94} + \cdots - 28.0243u + 3.87884 \\ 0.00696670u^{95} - 0.0482427u^{94} + \cdots + 3.16500u - 1.55323 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.00900256u^{95} - 0.0295883u^{94} + \cdots + 11.2540u + 2.08466 \\ -0.00505604u^{95} + 0.0152043u^{94} + \cdots + 15.2711u - 3.72251 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.00500128u^{95} - 0.0143063u^{94} + \cdots - 26.3933u + 3.66559 \\ 0.00876741u^{95} - 0.0603925u^{94} + \cdots + 5.19063u - 2.26865 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.00136937u^{95} - 0.0219863u^{94} + \cdots - 12.9762u - 2.37391 \\ 0.00246690u^{95} - 0.0106302u^{94} + \cdots - 4.64789u + 0.104132 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.00136937u^{95} - 0.0219863u^{94} + \cdots - 12.9762u - 2.37391 \\ 0.00246690u^{95} - 0.0106302u^{94} + \cdots - 4.64789u + 0.104132 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.0250992u^{95} + 0.186713u^{94} + \cdots - 78.8891u + 8.37508$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{96}+10u^{95}+\cdots+6633u+3041$
c_2, c_5	$u^{96}-3u^{95}+\cdots-94u+61$
c_3, c_{11}	$u^{96}-6u^{95}+\cdots-1182u+317$
c_4	$u^{96}-9u^{95}+\cdots-16879u+53041$
c_6	$u^{96}-9u^{95}+\cdots-5684u+379$
c_7, c_{10}	$u^{96}+4u^{95}+\cdots+632u+589$
c_8	$u^{96}+3u^{95}+\cdots-246u+157$
c_9	$u^{96}-2u^{95}+\cdots-17198u+3401$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{96} - 32y^{95} + \cdots - 121986175y + 9247681$
c_2, c_5	$y^{96} - 59y^{95} + \cdots - 111072y + 3721$
c_3, c_{11}	$y^{96} + 82y^{95} + \cdots - 4643204y + 100489$
c_4	$y^{96} + 37y^{95} + \cdots + 73089472791y + 2813347681$
c_6	$y^{96} + 21y^{95} + \cdots - 49650y + 143641$
c_7, c_{10}	$y^{96} + 64y^{95} + \cdots + 11074296y + 346921$
c_8	$y^{96} + 3y^{95} + \cdots + 32428y + 24649$
c_9	$y^{96} - 28y^{95} + \cdots + 255762164y + 11566801$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.525298+0.768063I$ $a=\ \ 0.832846+0.127540I$ $b=\ \ 0.306967+0.674805I$	$0.128921+1.031740I$	0
$u=-0.525298-0.768063I$ $a=\ \ 0.832846-0.127540I$ $b=\ \ 0.306967-0.674805I$	$0.128921-1.031740I$	0
$u=-0.905763+0.203058I$ $a=\ \ 0.528701+0.137906I$ $b=-0.368997-1.240100I$	$3.35405-3.65742I$	0
$u=-0.905763-0.203058I$ $a=\ \ 0.528701-0.137906I$ $b=-0.368997+1.240100I$	$3.35405+3.65742I$	0
$u=-0.044423+1.100350I$ $a=\ \ 0.670337-0.111127I$ $b=-1.49263+0.17670I$	$0.85043+1.34410I$	0
$u=-0.044423-1.100350I$ $a=\ \ 0.670337+0.111127I$ $b=-1.49263-0.17670I$	$0.85043-1.34410I$	0
$u=\ \ 0.156095+1.116810I$ $a=\ \ 0.77783-1.99140I$ $b=-0.151729+1.185900I$	$4.33126+2.63781I$	0
$u=\ \ 0.156095-1.116810I$ $a=\ \ 0.77783+1.99140I$ $b=-0.151729-1.185900I$	$4.33126-2.63781I$	0
$u=\ \ 0.211266+1.131180I$ $a=-0.620255+0.772149I$ $b=-0.728438-0.962019I$	$3.97517-5.01625I$	0
$u=\ \ 0.211266-1.131180I$ $a=-0.620255-0.772149I$ $b=-0.728438+0.962019I$	$3.97517+5.01625I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.746714+0.400699I$ $a=-0.051089-0.427290I$ $b=-0.282677+0.880126I$	$-0.02117+1.72461I$	0
$u=-0.746714-0.400699I$ $a=-0.051089+0.427290I$ $b=-0.282677-0.880126I$	$-0.02117-1.72461I$	0
$u=-0.431506+0.716563I$ $a=\ \ 0.370722-0.216183I$ $b=\ \ 0.027208+0.363722I$	$0.08320+1.41662I$	0
$u=-0.431506-0.716563I$ $a=\ \ 0.370722+0.216183I$ $b=\ \ 0.027208-0.363722I$	$0.08320-1.41662I$	0
$u=-0.707791+0.931631I$ $a=\ \ 1.24064+0.71963I$ $b=\ \ 0.251316-1.000650I$	$1.15309+3.61333I$	0
$u=-0.707791-0.931631I$ $a=\ \ 1.24064-0.71963I$ $b=\ \ 0.251316+1.000650I$	$1.15309-3.61333I$	0
$u=\ \ 0.484567+1.065950I$ $a=-0.382479-0.495717I$ $b=\ \ 0.178676-0.553111I$	$4.73513-6.35747I$	0
$u=\ \ 0.484567-1.065950I$ $a=-0.382479+0.495717I$ $b=\ \ 0.178676+0.553111I$	$4.73513+6.35747I$	0
$u=-0.247030+1.153520I$ $a=\ \ 0.56682+2.45051I$ $b=\ \ 0.047546-1.035870I$	$1.37019+2.25364I$	0
$u=-0.247030-1.153520I$ $a=\ \ 0.56682-2.45051I$ $b=\ \ 0.047546+1.035870I$	$1.37019-2.25364I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.157639+1.183670I$ $a=\ \ 0.001084+0.184832I$ $b=-0.832195+0.249563I$	$1.92782+0.64289I$	0
$u=-0.157639-1.183670I$ $a=\ \ 0.001084-0.184832I$ $b=-0.832195-0.249563I$	$1.92782-0.64289I$	0
$u=\ \ 0.738861+0.273522I$ $a=\ \ 0.657325+0.379173I$ $b=\ \ 0.406156+0.380173I$	$2.46146+1.79544I$	$-1.45895+0.I$
$u=\ \ 0.738861-0.273522I$ $a=\ \ 0.657325-0.379173I$ $b=\ \ 0.406156-0.380173I$	$2.46146-1.79544I$	$-1.45895+0.I$
$u=\ \ 0.179022+1.204630I$ $a=-0.01303-3.15047I$ $b=\ \ 0.116577+1.093260I$	$6.31205-7.68822I$	0
$u=\ \ 0.179022-1.204630I$ $a=-0.01303+3.15047I$ $b=\ \ 0.116577-1.093260I$	$6.31205+7.68822I$	0
$u=-0.012622+1.218940I$ $a=\ \ 0.986741+0.267737I$ $b=-1.43710-0.15178I$	$1.37179-1.08663I$	0
$u=-0.012622-1.218940I$ $a=\ \ 0.986741-0.267737I$ $b=-1.43710+0.15178I$	$1.37179+1.08663I$	0
$u=\ \ 0.769195+0.076746I$ $a=\ \ 0.501727+0.959808I$ $b=\ \ 0.764067-0.172537I$	$1.54996-7.35456I$	$-3.65767+5.46779I$
$u=\ \ 0.769195-0.076746I$ $a=\ \ 0.501727-0.959808I$ $b=\ \ 0.764067+0.172537I$	$1.54996+7.35456I$	$-3.65767-5.46779I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.252248 + 0.723246I$ $a = 0.84707 + 1.47573I$ $b = -0.788312 - 0.504034I$	$0.30377 - 1.87014I$	$0. + 5.71715I$
$u = 0.252248 - 0.723246I$ $a = 0.84707 - 1.47573I$ $b = -0.788312 + 0.504034I$	$0.30377 + 1.87014I$	$0. - 5.71715I$
$u = -0.437620 + 0.614342I$ $a = 0.815012 - 0.971132I$ $b = -0.719713 + 0.173039I$	$-0.041781 + 0.377009I$	$-1.80508 + 1.88167I$
$u = -0.437620 - 0.614342I$ $a = 0.815012 + 0.971132I$ $b = -0.719713 - 0.173039I$	$-0.041781 - 0.377009I$	$-1.80508 - 1.88167I$
$u = -0.751709 + 0.055214I$ $a = 0.730341 - 0.926417I$ $b = 0.517302 + 0.265791I$	$-1.73313 + 1.97657I$	$-7.36391 - 3.70859I$
$u = -0.751709 - 0.055214I$ $a = 0.730341 + 0.926417I$ $b = 0.517302 - 0.265791I$	$-1.73313 - 1.97657I$	$-7.36391 + 3.70859I$
$u = 0.295341 + 1.238160I$ $a = -0.61300 + 1.66487I$ $b = -0.57741 - 1.40354I$	$5.09926 - 5.68444I$	0
$u = 0.295341 - 1.238160I$ $a = -0.61300 - 1.66487I$ $b = -0.57741 + 1.40354I$	$5.09926 + 5.68444I$	0
$u = -0.137364 + 1.273180I$ $a = -1.19936 - 2.23118I$ $b = -0.299431 + 1.353980I$	$10.54150 + 6.15053I$	0
$u = -0.137364 - 1.273180I$ $a = -1.19936 + 2.23118I$ $b = -0.299431 - 1.353980I$	$10.54150 - 6.15053I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.639370 + 0.250525I$ $a = 0.565116 + 0.474290I$ $b = -0.295651 + 1.043140I$	$1.90927 + 2.19671I$	$0.93082 - 1.10813I$
$u = 0.639370 - 0.250525I$ $a = 0.565116 - 0.474290I$ $b = -0.295651 - 1.043140I$	$1.90927 - 2.19671I$	$0.93082 + 1.10813I$
$u = 1.268200 + 0.341927I$ $a = 0.278974 - 0.564312I$ $b = 0.400782 + 1.210640I$	$4.78123 - 11.65630I$	0
$u = 1.268200 - 0.341927I$ $a = 0.278974 + 0.564312I$ $b = 0.400782 - 1.210640I$	$4.78123 + 11.65630I$	0
$u = -0.000655 + 1.317040I$ $a = 0.19536 + 1.86854I$ $b = 0.48808 - 1.62742I$	$11.30430 - 4.36654I$	0
$u = -0.000655 - 1.317040I$ $a = 0.19536 - 1.86854I$ $b = 0.48808 + 1.62742I$	$11.30430 + 4.36654I$	0
$u = -0.419520 + 1.263720I$ $a = -0.46558 - 1.70466I$ $b = -0.55012 + 1.56690I$	$6.77870 + 8.49664I$	0
$u = -0.419520 - 1.263720I$ $a = -0.46558 + 1.70466I$ $b = -0.55012 - 1.56690I$	$6.77870 - 8.49664I$	0
$u = 0.544115 + 0.363196I$ $a = 0.940669 + 0.668934I$ $b = -0.150654 + 0.928303I$	$1.92259 + 2.10317I$	$0.04322 - 3.10406I$
$u = 0.544115 - 0.363196I$ $a = 0.940669 - 0.668934I$ $b = -0.150654 - 0.928303I$	$1.92259 - 2.10317I$	$0.04322 + 3.10406I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.273818 + 1.329490I$ $a = 0.051546 - 0.376505I$ $b = 0.825894 + 0.224643I$	$7.43575 - 1.63405I$	0
$u = 0.273818 - 1.329490I$ $a = 0.051546 + 0.376505I$ $b = 0.825894 - 0.224643I$	$7.43575 + 1.63405I$	0
$u = 0.059857 + 1.359900I$ $a = 0.36449 - 1.63085I$ $b = 0.42491 + 1.36679I$	$7.46220 + 0.46211I$	0
$u = 0.059857 - 1.359900I$ $a = 0.36449 + 1.63085I$ $b = 0.42491 - 1.36679I$	$7.46220 - 0.46211I$	0
$u = -0.327054 + 1.326080I$ $a = -0.259748 + 0.092424I$ $b = 1.100500 + 0.061477I$	$2.65775 + 5.88966I$	0
$u = -0.327054 - 1.326080I$ $a = -0.259748 - 0.092424I$ $b = 1.100500 - 0.061477I$	$2.65775 - 5.88966I$	0
$u = 0.255988 + 1.341720I$ $a = -0.161662 - 0.954739I$ $b = -0.294743 + 0.280790I$	$5.47557 + 3.41544I$	0
$u = 0.255988 - 1.341720I$ $a = -0.161662 + 0.954739I$ $b = -0.294743 - 0.280790I$	$5.47557 - 3.41544I$	0
$u = 0.326599 + 1.334520I$ $a = -0.464224 - 0.182607I$ $b = 1.292860 + 0.011178I$	$6.01630 - 11.30650I$	0
$u = 0.326599 - 1.334520I$ $a = -0.464224 + 0.182607I$ $b = 1.292860 - 0.011178I$	$6.01630 + 11.30650I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.386100 + 0.123391I$ $a = 0.242081 - 0.614254I$ $b = 0.094174 + 1.204520I$	$6.84221 + 0.37747I$	0
$u = 1.386100 - 0.123391I$ $a = 0.242081 + 0.614254I$ $b = 0.094174 - 1.204520I$	$6.84221 - 0.37747I$	0
$u = 0.231802 + 1.386730I$ $a = -0.33603 + 2.14529I$ $b = -0.53021 - 1.50271I$	$7.02857 - 7.75807I$	0
$u = 0.231802 - 1.386730I$ $a = -0.33603 - 2.14529I$ $b = -0.53021 + 1.50271I$	$7.02857 + 7.75807I$	0
$u = 0.546250 + 0.221921I$ $a = -0.586107 + 0.400357I$ $b = -0.503916 - 1.193030I$	$1.88753 - 4.83574I$	$-1.82150 + 10.28229I$
$u = 0.546250 - 0.221921I$ $a = -0.586107 - 0.400357I$ $b = -0.503916 + 1.193030I$	$1.88753 + 4.83574I$	$-1.82150 - 10.28229I$
$u = -1.351470 + 0.411646I$ $a = 0.346166 + 0.613782I$ $b = 0.319758 - 1.115460I$	$0.80165 + 5.35661I$	0
$u = -1.351470 - 0.411646I$ $a = 0.346166 - 0.613782I$ $b = 0.319758 + 1.115460I$	$0.80165 - 5.35661I$	0
$u = -0.483414 + 0.287960I$ $a = -0.207258 - 0.799988I$ $b = -0.829215 + 0.552365I$	$-0.78991 + 2.57371I$	$-7.44192 - 8.81611I$
$u = -0.483414 - 0.287960I$ $a = -0.207258 + 0.799988I$ $b = -0.829215 - 0.552365I$	$-0.78991 - 2.57371I$	$-7.44192 + 8.81611I$

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.17575+1.42720I$		
$a=$	$0.746124-1.151820I$	$7.67642-0.59175I$	0
$b=$	$0.231196+0.933301I$		
$u=$	$0.17575-1.42720I$		
$a=$	$0.746124+1.151820I$	$7.67642+0.59175I$	0
$b=$	$0.231196-0.933301I$		
$u=$	$-0.24656+1.42253I$		
$a=$	$1.04720+1.40871I$	$8.87495+0.32269I$	0
$b=$	$0.027903-1.128860I$		
$u=$	$-0.24656-1.42253I$		
$a=$	$1.04720-1.40871I$	$8.87495-0.32269I$	0
$b=$	$0.027903+1.128860I$		
$u=$	$0.02044+1.44372I$		
$a=$	$0.076974+1.408660I$	$9.94869+4.20442I$	0
$b=$	$0.72037-1.26880I$		
$u=$	$0.02044-1.44372I$		
$a=$	$0.076974-1.408660I$	$9.94869-4.20442I$	0
$b=$	$0.72037+1.26880I$		
$u=$	$0.415406+0.361543I$		
$a=$	$2.21587+0.61418I$	$3.66695+5.47402I$	$0.51268-6.29867I$
$b=$	$0.455317-0.923063I$		
$u=$	$0.415406-0.361543I$		
$a=$	$2.21587-0.61418I$	$3.66695-5.47402I$	$0.51268+6.29867I$
$b=$	$0.455317+0.923063I$		
$u=$	$-0.28768+1.44338I$		
$a=$	$-0.21246-1.79678I$	$5.80229+5.49787I$	0
$b=$	$-0.51281+1.38469I$		
$u=$	$-0.28768-1.44338I$		
$a=$	$-0.21246+1.79678I$	$5.80229-5.49787I$	0
$b=$	$-0.51281-1.38469I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.52488 + 1.47047I$ $a = 0.75954 - 1.52436I$ $b = 0.402301 + 1.326180I$	$12.08550 - 6.02777I$	0
$u = 0.52488 - 1.47047I$ $a = 0.75954 + 1.52436I$ $b = 0.402301 - 1.326180I$	$12.08550 + 6.02777I$	0
$u = 0.49192 + 1.51520I$ $a = 0.52792 - 1.65271I$ $b = 0.57582 + 1.42748I$	$10.6115 - 17.7790I$	0
$u = 0.49192 - 1.51520I$ $a = 0.52792 + 1.65271I$ $b = 0.57582 - 1.42748I$	$10.6115 + 17.7790I$	0
$u = -0.50869 + 1.52093I$ $a = 0.56522 + 1.55059I$ $b = 0.54425 - 1.34959I$	$6.73423 + 11.71500I$	0
$u = -0.50869 - 1.52093I$ $a = 0.56522 - 1.55059I$ $b = 0.54425 + 1.34959I$	$6.73423 - 11.71500I$	0
$u = 0.57035 + 1.51967I$ $a = -0.47162 + 1.46962I$ $b = -0.19365 - 1.44897I$	$11.70320 - 7.44211I$	0
$u = 0.57035 - 1.51967I$ $a = -0.47162 - 1.46962I$ $b = -0.19365 + 1.44897I$	$11.70320 + 7.44211I$	0
$u = 0.278450 + 0.071670I$ $a = -1.52137 + 0.64328I$ $b = -0.755950 - 0.092790I$	$-1.43035 - 0.01918I$	$-9.48323 - 0.92177I$
$u = 0.278450 - 0.071670I$ $a = -1.52137 - 0.64328I$ $b = -0.755950 + 0.092790I$	$-1.43035 + 0.01918I$	$-9.48323 + 0.92177I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.183899+0.086824I$ $a=-0.75076-4.63928I$ $b=\ \ 0.022216-1.324870I$	$6.79043-4.75561I$	$3.73976+5.73901I$
$u=-0.183899-0.086824I$ $a=-0.75076+4.63928I$ $b=\ \ 0.022216+1.324870I$	$6.79043+4.75561I$	$3.73976-5.73901I$
$u=-0.28859+1.82446I$ $a=-0.139870-1.338690I$ $b=-0.262443+1.128520I$	$5.90628+4.32377I$	0
$u=-0.28859-1.82446I$ $a=-0.139870+1.338690I$ $b=-0.262443-1.128520I$	$5.90628-4.32377I$	0
$u=\ \ 1.10712+1.84505I$ $a=-0.305270+1.010260I$ $b=\ \ 0.015849-1.136460I$	$7.84962+3.05507I$	0
$u=\ \ 1.10712-1.84505I$ $a=-0.305270-1.010260I$ $b=\ \ 0.015849+1.136460I$	$7.84962-3.05507I$	0

II.

$\boldsymbol{I_2^u = \langle -1.52\times 10^6 u^{21} + 5.75\times 10^5 u^{20} + \cdots + 5.51\times 10^5 b + 5.58\times 10^5,\ 4.78\times 10^5 u^{21} + 1.11\times 10^6 u^{20} + \cdots + 5.51\times 10^5 a + 2.61\times 10^6,\ u^{22} - u^{21} + \cdots - 7u + 1\rangle}$

(i) Arc colorings

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

$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.866875u^{21} - 2.01141u^{20} + \cdots + 31.0423u - 4.74530 \\ 2.76469u^{21} - 1.04282u^{20} + \cdots + 7.59317u - 1.01279 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1.89782u^{21} - 3.05422u^{20} + \cdots + 38.6355u - 5.75809 \\ 2.76469u^{21} - 1.04282u^{20} + \cdots + 7.59317u - 1.01279 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -1.36561u^{21} - 3.35513u^{20} + \cdots + 29.1644u - 4.25179 \\ 0.738879u^{21} - 0.454115u^{20} + \cdots + 2.62218u + 0.546192 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -2.20771u^{21} + 1.20618u^{20} + \cdots - 11.3065u + 3.27600 \\ 1.66152u^{21} + 0.0788899u^{20} + \cdots - 10.4549u + 3.16953 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -4.79637u^{21} + 2.41999u^{20} + \cdots - 12.0899u - 0.812203 \\ -1.28214u^{21} - 0.327382u^{20} + \cdots - 6.66408u + 1.42918 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -3.31089u^{21} + 2.32789u^{20} + \cdots - 29.3545u + 6.45832 \\ 1.02103u^{21} + 1.05286u^{20} + \cdots - 27.2700u + 6.33331 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.897819u^{21} - 2.05422u^{20} + \cdots + 11.6355u + 0.241909 \\ 0.817375u^{21} - 0.0709815u^{20} + \cdots + 8.84560u - 1.61137 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.897819u^{21} - 2.05422u^{20} + \cdots + 11.6355u + 0.241909 \\ 0.817375u^{21} - 0.0709815u^{20} + \cdots + 8.84560u - 1.61137 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{569868}{551059}u^{21} - \frac{982528}{551059}u^{20} + \cdots - \frac{31980159}{551059}u + \frac{3277033}{551059}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{22} - 3u^{21} + \cdots - 4u + 1$
c_2	$u^{22} + 2u^{21} + \cdots + 7u + 3$
c_3	$u^{22} + u^{21} + \cdots + 7u + 1$
c_4	$u^{22} + 4u^{19} + \cdots - 6u + 1$
c_5	$u^{22} - 2u^{21} + \cdots - 7u + 3$
c_6	$u^{22} - 2u^{21} + \cdots - u + 1$
c_7	$u^{22} - 9u^{21} + \cdots - 23u + 3$
c_8	$u^{22} - 2u^{21} + \cdots + 3u + 1$
c_9	$u^{22} - u^{21} + \cdots - u + 1$
c_{10}	$u^{22} + 9u^{21} + \cdots + 23u + 3$
c_{11}	$u^{22} - u^{21} + \cdots - 7u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{22} - 13y^{21} + \cdots + 4y + 1$
c_2, c_5	$y^{22} - 12y^{21} + \cdots - 85y + 9$
c_3, c_{11}	$y^{22} + 21y^{21} + \cdots + 7y + 1$
c_4	$y^{22} + 6y^{20} + \cdots - 2y + 1$
c_6	$y^{22} - 8y^{21} + \cdots - 11y + 1$
c_7, c_{10}	$y^{22} + 11y^{21} + \cdots + 59y + 9$
c_8	$y^{22} - 6y^{21} + \cdots - 5y + 1$
c_9	$y^{22} + 3y^{21} + \cdots - 9y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.325722+0.924836I$ $a=-0.314978-1.013920I$ $b=\ \ 0.231197-0.644969I$	$4.63455+7.30143I$	$0.41543-9.60759I$
$u=-0.325722-0.924836I$ $a=-0.314978+1.013920I$ $b=\ \ 0.231197+0.644969I$	$4.63455-7.30143I$	$0.41543+9.60759I$
$u=\ \ 0.751922+0.704622I$ $a=-1.144800+0.379579I$ $b=-0.295783-1.049270I$	$1.32512-4.05365I$	$2.20928+9.99112I$
$u=\ \ 0.751922-0.704622I$ $a=-1.144800-0.379579I$ $b=-0.295783+1.049270I$	$1.32512+4.05365I$	$2.20928-9.99112I$
$u=\ \ 0.329954+0.830831I$ $a=\ \ 0.114259+0.430464I$ $b=-0.630595+0.054388I$	$-0.77711-1.51881I$	$-7.69357+3.97599I$
$u=\ \ 0.329954-0.830831I$ $a=\ \ 0.114259-0.430464I$ $b=-0.630595-0.054388I$	$-0.77711+1.51881I$	$-7.69357-3.97599I$
$u=\ \ 0.028518+1.221960I$ $a=\ \ 0.900081-0.223546I$ $b=-1.53702+0.22214I$	$1.83081+0.86562I$	$9.02771+1.15882I$
$u=\ \ 0.028518-1.221960I$ $a=\ \ 0.900081+0.223546I$ $b=-1.53702-0.22214I$	$1.83081-0.86562I$	$9.02771-1.15882I$
$u=\ \ 0.361208+0.645420I$ $a=-1.55687+0.56837I$ $b=-0.221210+0.639754I$	$-0.16641-1.41041I$	$-7.38985+6.70652I$
$u=\ \ 0.361208-0.645420I$ $a=-1.55687-0.56837I$ $b=-0.221210-0.639754I$	$-0.16641+1.41041I$	$-7.38985-6.70652I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.297298+1.256540I$ $a=-0.74638-2.15779I$ $b=-0.25149+1.46113I$	$8.91096+6.90073I$	$4.68084-6.27490I$
$u=-0.297298-1.256540I$ $a=-0.74638+2.15779I$ $b=-0.25149-1.46113I$	$8.91096-6.90073I$	$4.68084+6.27490I$
$u=0.259751+1.370260I$ $a=-0.30722+1.85435I$ $b=-0.59274-1.48164I$	$6.44412-6.53950I$	$3.13648+5.18044I$
$u=0.259751-1.370260I$ $a=-0.30722-1.85435I$ $b=-0.59274+1.48164I$	$6.44412+6.53950I$	$3.13648-5.18044I$
$u=0.115142+0.583729I$ $a=1.17843+0.84891I$ $b=-0.954267-0.339130I$	$-0.49687-1.33027I$	$-8.40153+3.08936I$
$u=0.115142-0.583729I$ $a=1.17843-0.84891I$ $b=-0.954267+0.339130I$	$-0.49687+1.33027I$	$-8.40153-3.08936I$
$u=-0.83136+1.32090I$ $a=0.367088+0.859047I$ $b=0.071362-1.159550I$	$7.43077-2.45676I$	$4.44661-0.13361I$
$u=-0.83136-1.32090I$ $a=0.367088-0.859047I$ $b=0.071362+1.159550I$	$7.43077+2.45676I$	$4.44661+0.13361I$
$u=0.384833+0.166221I$ $a=1.47985+0.70605I$ $b=-0.489921+1.129880I$	$2.05850+3.60374I$	$-1.99861-4.85808I$
$u=0.384833-0.166221I$ $a=1.47985-0.70605I$ $b=-0.489921-1.129880I$	$2.05850-3.60374I$	$-1.99861+4.85808I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.27695 + 1.72488I$		
$a = \quad 0.03055 - 1.49682I$	$6.63906 - 3.73323I$	$7.06721 + 4.27420I$
$b = \quad 0.170469 + 1.002220I$		
$u = -0.27695 - 1.72488I$		
$a = \quad 0.03055 + 1.49682I$	$6.63906 + 3.73323I$	$7.06721 - 4.27420I$
$b = \quad 0.170469 - 1.002220I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{22}-3u^{21}+\cdots-4u+1)(u^{96}+10u^{95}+\cdots+6633u+3041)$
c_2	$(u^{22}+2u^{21}+\cdots+7u+3)(u^{96}-3u^{95}+\cdots-94u+61)$
c_3	$(u^{22}+u^{21}+\cdots+7u+1)(u^{96}-6u^{95}+\cdots-1182u+317)$
c_4	$(u^{22}+4u^{19}+\cdots-6u+1)(u^{96}-9u^{95}+\cdots-16879u+53041)$
c_5	$(u^{22}-2u^{21}+\cdots-7u+3)(u^{96}-3u^{95}+\cdots-94u+61)$
c_6	$(u^{22}-2u^{21}+\cdots-u+1)(u^{96}-9u^{95}+\cdots-5684u+379)$
c_7	$(u^{22}-9u^{21}+\cdots-23u+3)(u^{96}+4u^{95}+\cdots+632u+589)$
c_8	$(u^{22}-2u^{21}+\cdots+3u+1)(u^{96}+3u^{95}+\cdots-246u+157)$
c_9	$(u^{22}-u^{21}+\cdots-u+1)(u^{96}-2u^{95}+\cdots-17198u+3401)$
c_{10}	$(u^{22}+9u^{21}+\cdots+23u+3)(u^{96}+4u^{95}+\cdots+632u+589)$
c_{11}	$(u^{22}-u^{21}+\cdots-7u+1)(u^{96}-6u^{95}+\cdots-1182u+317)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{22} - 13y^{21} + \cdots + 4y + 1)$ $\cdot (y^{96} - 32y^{95} + \cdots - 121986175y + 9247681)$
c_2, c_5	$(y^{22} - 12y^{21} + \cdots - 85y + 9)(y^{96} - 59y^{95} + \cdots - 111072y + 3721)$
c_3, c_{11}	$(y^{22} + 21y^{21} + \cdots + 7y + 1)(y^{96} + 82y^{95} + \cdots - 4643204y + 100489)$
c_4	$(y^{22} + 6y^{20} + \cdots - 2y + 1)$ $\cdot (y^{96} + 37y^{95} + \cdots + 73089472791y + 2813347681)$
c_6	$(y^{22} - 8y^{21} + \cdots - 11y + 1)(y^{96} + 21y^{95} + \cdots - 49650y + 143641)$
c_7, c_{10}	$(y^{22} + 11y^{21} + \cdots + 59y + 9)$ $\cdot (y^{96} + 64y^{95} + \cdots + 11074296y + 346921)$
c_8	$(y^{22} - 6y^{21} + \cdots - 5y + 1)(y^{96} + 3y^{95} + \cdots + 32428y + 24649)$
c_9	$(y^{22} + 3y^{21} + \cdots - 9y + 1)$ $\cdot (y^{96} - 28y^{95} + \cdots + 255762164y + 11566801)$