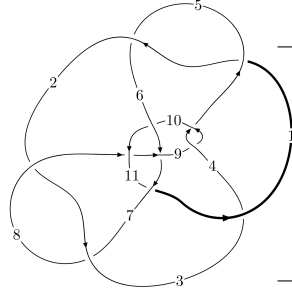
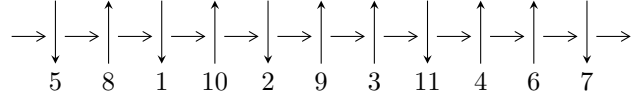


11a₂₇₄ (K11a₂₇₄)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle 3.70774 \times 10^{408} u^{106} + 8.16968 \times 10^{408} u^{105} + \dots + 1.93043 \times 10^{406} b - 5.29637 \times 10^{411}, \\ - 1.82573 \times 10^{412} u^{106} - 4.01506 \times 10^{412} u^{105} + \dots + 4.39752 \times 10^{409} a + 2.56897 \times 10^{415}, \\ u^{107} + 3u^{106} + \dots - 10305u - 1139 \rangle$$

$$I_2^u = \langle 244966793u^{24} - 694692620u^{23} + \dots + 130021567b - 164391945, \\ - 9288763323u^{24} + 21892602582u^{23} + \dots + 130021567a + 11899834301, \\ u^{25} - 2u^{24} + \dots + 2u - 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 132 representations.

¹The 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>).

²All coefficients of polynomials are rational numbers. But the coefficients are sometimes approximated in decimal forms when there is not enough margin.

$$\mathbf{I. } J_1^u = \langle 3.71 \times 10^{408} u^{106} + 8.17 \times 10^{408} u^{105} + \dots + 1.93 \times 10^{406} b - 5.30 \times 10^{411}, -1.83 \times 10^{412} u^{106} - 4.02 \times 10^{412} u^{105} + \dots + 4.40 \times 10^{409} a + 2.57 \times 10^{415}, u^{107} + 3u^{106} + \dots - 10305u - 1139 \rangle$$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 415.172u^{106} + 913.027u^{105} + \dots - 4.57425 \times 10^6 u - 584186. \\ -192.068u^{106} - 423.205u^{105} + \dots + 2.13856 \times 10^6 u + 274362. \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -41.0477u^{106} - 94.0550u^{105} + \dots + 517727.u + 68881.1 \\ -477.753u^{106} - 1055.09u^{105} + \dots + 5.34498 \times 10^6 u + 686198. \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -427.110u^{106} - 949.021u^{105} + \dots + 4.83420 \times 10^6 u + 621333. \\ 453.142u^{106} + 1002.58u^{105} + \dots - 5.09478 \times 10^6 u - 654884. \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 110.931u^{106} + 246.015u^{105} + \dots - 1.26496 \times 10^6 u - 163618. \\ 991.184u^{106} + 2197.61u^{105} + \dots - 1.11939 \times 10^7 u - 1.43983 \times 10^6 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 95.8929u^{106} + 194.195u^{105} + \dots - 843416.u - 101512. \\ 572.889u^{106} + 1274.47u^{105} + \dots - 6.52524 \times 10^6 u - 840913. \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -90.0069u^{106} - 202.051u^{105} + \dots + 1.05741 \times 10^6 u + 137578. \\ -743.527u^{106} - 1660.72u^{105} + \dots + 8.55566 \times 10^6 u + 1.10499 \times 10^6 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 568.863u^{106} + 1271.75u^{105} + \dots - 6.57032 \times 10^6 u - 849767. \\ 1649.37u^{106} + 3705.88u^{105} + \dots - 1.92517 \times 10^7 u - 2.49360 \times 10^6 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 568.863u^{106} + 1271.75u^{105} + \dots - 6.57032 \times 10^6 u - 849767. \\ 1649.37u^{106} + 3705.88u^{105} + \dots - 1.92517 \times 10^7 u - 2.49360 \times 10^6 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes

$$= -912.136u^{106} - 2056.39u^{105} + \dots + 1.07260 \times 10^7 u + 1.39093 \times 10^6$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{107} + 3u^{106} + \dots - 10305u - 1139$
c_2, c_7	$u^{107} + u^{106} + \dots - 73u + 151$
c_3	$u^{107} - 6u^{106} + \dots - 6634767u + 1340716$
c_4, c_9	$u^{107} + 2u^{106} + \dots + 282u + 193$
c_6	$u^{107} + 16u^{106} + \dots - 24u - 4$
c_8	$u^{107} - 8u^{106} + \dots + 29u - 2$
c_{10}	$u^{107} - 2u^{106} + \dots - 10504u + 844$
c_{11}	$u^{107} + 2u^{106} + \dots - 26229u - 6833$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{107} - 55y^{106} + \dots + 22754441y - 1297321$
c_2, c_7	$y^{107} + 75y^{106} + \dots - 624341y - 22801$
c_3	$y^{107} - 24y^{106} + \dots + 2724074633153y - 1797519392656$
c_4, c_9	$y^{107} - 58y^{106} + \dots + 979290y - 37249$
c_6	$y^{107} - 6y^{106} + \dots + 664y - 16$
c_8	$y^{107} - 16y^{106} + \dots - 35y - 4$
c_{10}	$y^{107} - 4y^{106} + \dots + 49093376y - 712336$
c_{11}	$y^{107} - 16y^{106} + \dots + 957467627y - 46689889$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.986400 + 0.232370I$ $a = 0.94892 + 1.81516I$ $b = 0.26348 + 1.64192I$	$-7.68063 - 0.83209I$	0
$u = 0.986400 - 0.232370I$ $a = 0.94892 - 1.81516I$ $b = 0.26348 - 1.64192I$	$-7.68063 + 0.83209I$	0
$u = 0.942762 + 0.377969I$ $a = 0.75110 + 1.67803I$ $b = -0.961631 + 0.436996I$	$-1.71347 - 4.27371I$	0
$u = 0.942762 - 0.377969I$ $a = 0.75110 - 1.67803I$ $b = -0.961631 - 0.436996I$	$-1.71347 + 4.27371I$	0
$u = -0.958354 + 0.075778I$ $a = -0.10373 - 1.63196I$ $b = 1.149760 - 0.565303I$	$-3.40971 + 0.41855I$	0
$u = -0.958354 - 0.075778I$ $a = -0.10373 + 1.63196I$ $b = 1.149760 + 0.565303I$	$-3.40971 - 0.41855I$	0
$u = -0.779316 + 0.696451I$ $a = -0.504398 + 0.453268I$ $b = -0.971305 + 0.384066I$	$0.10272 + 2.36255I$	0
$u = -0.779316 - 0.696451I$ $a = -0.504398 - 0.453268I$ $b = -0.971305 - 0.384066I$	$0.10272 - 2.36255I$	0
$u = 0.177444 + 1.042760I$ $a = 0.1006440 - 0.0606927I$ $b = -1.185950 - 0.430093I$	$3.78600 + 6.43458I$	0
$u = 0.177444 - 1.042760I$ $a = 0.1006440 + 0.0606927I$ $b = -1.185950 + 0.430093I$	$3.78600 - 6.43458I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.895161 + 0.290884I$ $a = 0.505776 + 0.140299I$ $b = 1.68447 - 0.12670I$	$0.58435 + 6.31456I$	0
$u = -0.895161 - 0.290884I$ $a = 0.505776 - 0.140299I$ $b = 1.68447 + 0.12670I$	$0.58435 - 6.31456I$	0
$u = -1.015630 + 0.422544I$ $a = -0.608996 + 1.091860I$ $b = -0.298045 + 0.748953I$	$-1.73579 + 1.74529I$	0
$u = -1.015630 - 0.422544I$ $a = -0.608996 - 1.091860I$ $b = -0.298045 - 0.748953I$	$-1.73579 - 1.74529I$	0
$u = 0.504244 + 0.740958I$ $a = -0.0333710 + 0.0042260I$ $b = 1.121870 + 0.369553I$	$2.26806 + 1.29518I$	0
$u = 0.504244 - 0.740958I$ $a = -0.0333710 - 0.0042260I$ $b = 1.121870 - 0.369553I$	$2.26806 - 1.29518I$	0
$u = 1.026430 + 0.445067I$ $a = 0.50031 - 1.38036I$ $b = 1.221760 - 0.462110I$	$3.45857 - 2.35544I$	0
$u = 1.026430 - 0.445067I$ $a = 0.50031 + 1.38036I$ $b = 1.221760 + 0.462110I$	$3.45857 + 2.35544I$	0
$u = -0.013670 + 0.872769I$ $a = -1.057650 - 0.304944I$ $b = 0.199244 - 0.708064I$	$-2.93156 + 7.07012I$	0
$u = -0.013670 - 0.872769I$ $a = -1.057650 + 0.304944I$ $b = 0.199244 + 0.708064I$	$-2.93156 - 7.07012I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.038590 + 0.476453I$ $a = -0.22479 + 2.27046I$ $b = -1.228310 + 0.377670I$	$0.79397 - 8.09835I$	0
$u = 1.038590 - 0.476453I$ $a = -0.22479 - 2.27046I$ $b = -1.228310 - 0.377670I$	$0.79397 + 8.09835I$	0
$u = 0.992427 + 0.582979I$ $a = 0.28613 + 1.52727I$ $b = -0.804721 + 0.144032I$	$-0.60216 - 4.42014I$	0
$u = 0.992427 - 0.582979I$ $a = 0.28613 - 1.52727I$ $b = -0.804721 - 0.144032I$	$-0.60216 + 4.42014I$	0
$u = -0.528391 + 0.662505I$ $a = -0.525822 + 0.658236I$ $b = -0.258034 + 0.406970I$	$-0.57780 + 2.21426I$	0
$u = -0.528391 - 0.662505I$ $a = -0.525822 - 0.658236I$ $b = -0.258034 - 0.406970I$	$-0.57780 - 2.21426I$	0
$u = -0.758270 + 0.377359I$ $a = -0.97768 - 1.94616I$ $b = -1.200130 - 0.362063I$	$0.87955 - 3.38375I$	0
$u = -0.758270 - 0.377359I$ $a = -0.97768 + 1.94616I$ $b = -1.200130 + 0.362063I$	$0.87955 + 3.38375I$	0
$u = 0.317941 + 0.777701I$ $a = 0.113685 + 0.456499I$ $b = -1.271250 - 0.022410I$	$5.70627 - 2.04309I$	0
$u = 0.317941 - 0.777701I$ $a = 0.113685 - 0.456499I$ $b = -1.271250 + 0.022410I$	$5.70627 + 2.04309I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.141690 + 0.244876I$		
$a = 1.11712 + 1.68774I$	$1.05453 + 4.32890I$	0
$b = 1.074340 + 0.337271I$		
$u = -1.141690 - 0.244876I$		
$a = 1.11712 - 1.68774I$	$1.05453 - 4.32890I$	0
$b = 1.074340 - 0.337271I$		
$u = 1.172160 + 0.081485I$		
$a = -0.09877 - 1.50658I$	$-8.46915 + 0.58647I$	0
$b = -0.366081 - 1.317570I$		
$u = 1.172160 - 0.081485I$		
$a = -0.09877 + 1.50658I$	$-8.46915 - 0.58647I$	0
$b = -0.366081 + 1.317570I$		
$u = -1.125510 + 0.369873I$		
$a = 0.49032 - 1.38272I$	$-2.50091 + 5.55154I$	0
$b = 0.390445 - 1.233280I$		
$u = -1.125510 - 0.369873I$		
$a = 0.49032 + 1.38272I$	$-2.50091 - 5.55154I$	0
$b = 0.390445 + 1.233280I$		
$u = 0.967874 + 0.696932I$		
$a = 0.13939 + 1.74328I$	$0.84643 - 6.63458I$	0
$b = -1.066700 + 0.627717I$		
$u = 0.967874 - 0.696932I$		
$a = 0.13939 - 1.74328I$	$0.84643 + 6.63458I$	0
$b = -1.066700 - 0.627717I$		
$u = 0.583611 + 0.547652I$		
$a = -0.811130 + 0.011218I$	$2.21393 + 3.95320I$	0
$b = 1.388120 + 0.262275I$		
$u = 0.583611 - 0.547652I$		
$a = -0.811130 - 0.011218I$	$2.21393 - 3.95320I$	0
$b = 1.388120 - 0.262275I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.795751 + 0.026610I$ $a = -1.46071 + 0.31634I$ $b = -0.570264 + 0.577089I$	$-3.11864 - 0.19481I$	0
$u = -0.795751 - 0.026610I$ $a = -1.46071 - 0.31634I$ $b = -0.570264 - 0.577089I$	$-3.11864 + 0.19481I$	0
$u = 0.777664 + 0.122407I$ $a = -0.65432 - 2.51164I$ $b = 0.648800 - 0.175263I$	$-0.59738 + 1.82584I$	0
$u = 0.777664 - 0.122407I$ $a = -0.65432 + 2.51164I$ $b = 0.648800 + 0.175263I$	$-0.59738 - 1.82584I$	0
$u = -1.215000 + 0.037952I$ $a = -0.818057 + 0.597206I$ $b = -0.458096 + 0.474076I$	$-3.11142 + 0.38976I$	0
$u = -1.215000 - 0.037952I$ $a = -0.818057 - 0.597206I$ $b = -0.458096 - 0.474076I$	$-3.11142 - 0.38976I$	0
$u = -1.001390 + 0.697728I$ $a = -0.743289 + 1.106810I$ $b = 0.700521 + 0.787341I$	$-4.48306 + 5.28560I$	0
$u = -1.001390 - 0.697728I$ $a = -0.743289 - 1.106810I$ $b = 0.700521 - 0.787341I$	$-4.48306 - 5.28560I$	0
$u = -0.541425 + 0.553774I$ $a = -0.384506 - 0.148529I$ $b = -0.356617 + 0.793713I$	$-3.48677 - 0.29528I$	0
$u = -0.541425 - 0.553774I$ $a = -0.384506 + 0.148529I$ $b = -0.356617 - 0.793713I$	$-3.48677 + 0.29528I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.760332 + 0.012943I$ $a = 0.855839 - 0.321413I$ $b = -1.396060 + 0.132482I$	$3.02312 - 3.08803I$	0
$u = -0.760332 - 0.012943I$ $a = 0.855839 + 0.321413I$ $b = -1.396060 - 0.132482I$	$3.02312 + 3.08803I$	0
$u = 0.670518 + 0.345863I$ $a = 1.23360 + 1.94436I$ $b = -0.972382 + 0.540863I$	$-1.90792 - 4.34721I$	0
$u = 0.670518 - 0.345863I$ $a = 1.23360 - 1.94436I$ $b = -0.972382 - 0.540863I$	$-1.90792 + 4.34721I$	0
$u = -1.138980 + 0.512959I$ $a = -0.05806 + 1.65313I$ $b = 1.41965 + 0.74374I$	$-3.66538 + 8.73172I$	0
$u = -1.138980 - 0.512959I$ $a = -0.05806 - 1.65313I$ $b = 1.41965 - 0.74374I$	$-3.66538 - 8.73172I$	0
$u = 0.491471 + 1.150150I$ $a = -0.312123 + 0.353998I$ $b = 1.075750 + 0.300107I$	$2.80517 + 0.25289I$	0
$u = 0.491471 - 1.150150I$ $a = -0.312123 - 0.353998I$ $b = 1.075750 - 0.300107I$	$2.80517 - 0.25289I$	0
$u = 1.180050 + 0.415213I$ $a = 0.506233 + 0.429519I$ $b = 0.749302 + 0.843791I$	$-4.38972 + 0.65205I$	0
$u = 1.180050 - 0.415213I$ $a = 0.506233 - 0.429519I$ $b = 0.749302 - 0.843791I$	$-4.38972 - 0.65205I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.216470 + 0.294723I$ $a = -0.71129 + 1.56282I$ $b = 1.095460 + 0.361300I$	$-5.13584 + 7.74504I$	0
$u = -1.216470 - 0.294723I$ $a = -0.71129 - 1.56282I$ $b = 1.095460 - 0.361300I$	$-5.13584 - 7.74504I$	0
$u = -0.597176 + 0.450609I$ $a = -0.18481 + 1.97419I$ $b = 0.719013 + 0.729095I$	$0.69488 + 2.31741I$	0
$u = -0.597176 - 0.450609I$ $a = -0.18481 - 1.97419I$ $b = 0.719013 - 0.729095I$	$0.69488 - 2.31741I$	0
$u = 0.747034$ $a = -0.985560$ $b = -1.81420$	6.04974	0
$u = 0.783338 + 1.031040I$ $a = -0.476712 - 0.175098I$ $b = 1.054390 - 0.258775I$	$0.222061 - 0.979752I$	0
$u = 0.783338 - 1.031040I$ $a = -0.476712 + 0.175098I$ $b = 1.054390 + 0.258775I$	$0.222061 + 0.979752I$	0
$u = 1.129370 + 0.667915I$ $a = 0.04446 + 1.66659I$ $b = -1.138630 + 0.569880I$	$0.71143 - 6.72557I$	0
$u = 1.129370 - 0.667915I$ $a = 0.04446 - 1.66659I$ $b = -1.138630 - 0.569880I$	$0.71143 + 6.72557I$	0
$u = -0.306453 + 1.281190I$ $a = -0.179496 - 0.169731I$ $b = 1.160100 - 0.518560I$	$-0.15826 - 11.75880I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.306453 - 1.281190I$ $a = -0.179496 + 0.169731I$ $b = 1.160100 + 0.518560I$	$-0.15826 + 11.75880I$	0
$u = -0.256265 + 0.616203I$ $a = 0.659506 - 0.891867I$ $b = -1.174010 + 0.469012I$	$-1.10598 - 4.23301I$	0
$u = -0.256265 - 0.616203I$ $a = 0.659506 + 0.891867I$ $b = -1.174010 - 0.469012I$	$-1.10598 + 4.23301I$	0
$u = 1.249560 + 0.496859I$ $a = -0.470769 - 1.167780I$ $b = -0.303354 - 1.221520I$	$-6.63108 - 11.96940I$	0
$u = 1.249560 - 0.496859I$ $a = -0.470769 + 1.167780I$ $b = -0.303354 + 1.221520I$	$-6.63108 + 11.96940I$	0
$u = 1.309780 + 0.330332I$ $a = 0.274873 - 0.790752I$ $b = 0.089576 - 0.732286I$	$-6.27513 - 5.21106I$	0
$u = 1.309780 - 0.330332I$ $a = 0.274873 + 0.790752I$ $b = 0.089576 + 0.732286I$	$-6.27513 + 5.21106I$	0
$u = 1.339110 + 0.384317I$ $a = 0.218932 + 1.021670I$ $b = 0.428507 + 0.715696I$	$-3.42958 - 4.03082I$	0
$u = 1.339110 - 0.384317I$ $a = 0.218932 - 1.021670I$ $b = 0.428507 - 0.715696I$	$-3.42958 + 4.03082I$	0
$u = -0.596030 + 0.015402I$ $a = -1.40783 + 4.40453I$ $b = -0.624969 - 0.029942I$	$-2.33761 + 6.09907I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.596030 - 0.015402I$ $a = -1.40783 - 4.40453I$ $b = -0.624969 + 0.029942I$	$-2.33761 - 6.09907I$	0
$u = 1.278180 + 0.597403I$ $a = 0.16469 - 1.50384I$ $b = 1.27288 - 0.69832I$	$0.38916 - 12.29960I$	0
$u = 1.278180 - 0.597403I$ $a = 0.16469 + 1.50384I$ $b = 1.27288 + 0.69832I$	$0.38916 + 12.29960I$	0
$u = -1.34893 + 0.42751I$ $a = -0.341692 - 1.233990I$ $b = -1.26189 - 0.70892I$	$-5.54355 + 6.30492I$	0
$u = -1.34893 - 0.42751I$ $a = -0.341692 + 1.233990I$ $b = -1.26189 + 0.70892I$	$-5.54355 - 6.30492I$	0
$u = -1.36142 + 0.44294I$ $a = 0.344902 - 0.967409I$ $b = -0.886579 - 0.536312I$	$-6.97914 - 1.89469I$	0
$u = -1.36142 - 0.44294I$ $a = 0.344902 + 0.967409I$ $b = -0.886579 + 0.536312I$	$-6.97914 + 1.89469I$	0
$u = 1.46671 + 0.18400I$ $a = 0.997962 + 0.379768I$ $b = 0.537001 + 0.211295I$	$-7.13217 - 4.86452I$	0
$u = 1.46671 - 0.18400I$ $a = 0.997962 - 0.379768I$ $b = 0.537001 - 0.211295I$	$-7.13217 + 4.86452I$	0
$u = -0.25299 + 1.45770I$ $a = 0.371342 + 0.340879I$ $b = -0.889840 + 0.339869I$	$2.73935 - 1.44205I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.25299 - 1.45770I$ $a = 0.371342 - 0.340879I$ $b = -0.889840 - 0.339869I$	$2.73935 + 1.44205I$	0
$u = -1.32821 + 0.69461I$ $a = 0.01175 - 1.46223I$ $b = -1.29936 - 0.68644I$	$-3.4594 + 18.6505I$	0
$u = -1.32821 - 0.69461I$ $a = 0.01175 + 1.46223I$ $b = -1.29936 + 0.68644I$	$-3.4594 - 18.6505I$	0
$u = -1.30416 + 0.74302I$ $a = 0.222241 + 0.523886I$ $b = 0.781123 - 0.138371I$	$-0.983804 - 0.893136I$	0
$u = -1.30416 - 0.74302I$ $a = 0.222241 - 0.523886I$ $b = 0.781123 + 0.138371I$	$-0.983804 + 0.893136I$	0
$u = 0.065712 + 0.481544I$ $a = -0.052612 + 0.945417I$ $b = 0.334016 + 0.340844I$	$0.707089 + 1.076880I$	$4.73200 - 5.26476I$
$u = 0.065712 - 0.481544I$ $a = -0.052612 - 0.945417I$ $b = 0.334016 - 0.340844I$	$0.707089 - 1.076880I$	$4.73200 + 5.26476I$
$u = -1.31792 + 0.78965I$ $a = 0.106183 - 0.905562I$ $b = -1.221770 - 0.464344I$	$-2.61168 + 9.55584I$	0
$u = -1.31792 - 0.78965I$ $a = 0.106183 + 0.905562I$ $b = -1.221770 + 0.464344I$	$-2.61168 - 9.55584I$	0
$u = -1.45253 + 0.66887I$ $a = 0.044860 + 1.310230I$ $b = 1.088320 + 0.554757I$	$-1.44975 + 8.88875I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.45253 - 0.66887I$ $a = 0.044860 - 1.310230I$ $b = 1.088320 - 0.554757I$	$-1.44975 - 8.88875I$	0
$u = -0.146393 + 0.303286I$ $a = 2.33022 - 1.64478I$ $b = 0.121707 - 0.702495I$	$0.20217 - 2.39762I$	$2.80067 + 2.93719I$
$u = -0.146393 - 0.303286I$ $a = 2.33022 + 1.64478I$ $b = 0.121707 + 0.702495I$	$0.20217 + 2.39762I$	$2.80067 - 2.93719I$
$u = 1.67278 + 0.07424I$ $a = -0.302795 - 0.461913I$ $b = -0.675695 - 0.428254I$	$-7.67236 + 5.96387I$	0
$u = 1.67278 - 0.07424I$ $a = -0.302795 + 0.461913I$ $b = -0.675695 + 0.428254I$	$-7.67236 - 5.96387I$	0
$u = 0.15618 + 1.97729I$ $a = -0.202346 + 0.018617I$ $b = 0.979165 - 0.204325I$	$0.116311 - 0.699806I$	0
$u = 0.15618 - 1.97729I$ $a = -0.202346 - 0.018617I$ $b = 0.979165 + 0.204325I$	$0.116311 + 0.699806I$	0

II.

$$I_2^u = \langle 2.45 \times 10^8 u^{24} - 6.95 \times 10^8 u^{23} + \dots + 1.30 \times 10^8 b - 1.64 \times 10^8, -9.29 \times 10^9 u^{24} + 2.19 \times 10^{10} u^{23} + \dots + 1.30 \times 10^8 a + 1.19 \times 10^{10}, u^{25} - 2u^{24} + \dots + 2u - 1 \rangle$$

(i) Arc colorings

$$\begin{aligned} a_2 &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_5 &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_6 &= \begin{pmatrix} 1 \\ u^2 \end{pmatrix} \\ a_{10} &= \begin{pmatrix} 71.4402u^{24} - 168.377u^{23} + \dots + 422.826u - 91.5220 \\ -1.88405u^{24} + 5.34290u^{23} + \dots - 3.00018u + 1.26434 \end{pmatrix} \\ a_{11} &= \begin{pmatrix} 50.4042u^{24} - 117.902u^{23} + \dots + 297.393u - 64.7613 \\ -6.41737u^{24} + 16.7357u^{23} + \dots - 40.8416u + 9.66707 \end{pmatrix} \\ a_1 &= \begin{pmatrix} u \\ u \end{pmatrix} \\ a_4 &= \begin{pmatrix} -68.2812u^{24} + 196.749u^{23} + \dots - 644.811u + 193.281 \\ 5.42990u^{24} - 8.79498u^{23} + \dots + 6.33272u + 1.18076 \end{pmatrix} \\ a_3 &= \begin{pmatrix} -46.8507u^{24} + 136.870u^{23} + \dots - 454.856u + 135.159 \\ 26.8603u^{24} - 68.6734u^{23} + \dots + 196.287u - 56.9409 \end{pmatrix} \\ a_9 &= \begin{pmatrix} -87.1836u^{24} + 196.568u^{23} + \dots - 462.463u + 90.7930 \\ -6.36834u^{24} + 4.10518u^{23} + \dots + 20.5737u - 14.0614 \end{pmatrix} \\ a_7 &= \begin{pmatrix} -29.2290u^{24} + 42.9489u^{23} + \dots + 14.6771u - 43.1831 \\ -53.9897u^{24} + 114.506u^{23} + \dots - 233.641u + 43.7286 \end{pmatrix} \\ a_8 &= \begin{pmatrix} 67.2328u^{24} - 185.134u^{23} + \dots + 569.048u - 172.843 \\ 58.0366u^{24} - 151.454u^{23} + \dots + 442.251u - 101.964 \end{pmatrix} \\ a_8 &= \begin{pmatrix} 67.2328u^{24} - 185.134u^{23} + \dots + 569.048u - 172.843 \\ 58.0366u^{24} - 151.454u^{23} + \dots + 442.251u - 101.964 \end{pmatrix} \end{aligned}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes

$$= -\frac{19591815370}{130021567}u^{24} + \frac{57307936648}{130021567}u^{23} + \dots - \frac{190001294619}{130021567}u + \frac{61319203002}{130021567}$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{25} + 2u^{24} + \dots + 2u + 1$
c_2	$u^{25} + 11u^{23} + \dots - 8u^2 - 1$
c_3	$u^{25} + 5u^{24} + \dots + 58u + 1$
c_4	$u^{25} - u^{24} + \dots + u - 1$
c_5	$u^{25} - 2u^{24} + \dots + 2u - 1$
c_6	$u^{25} - 3u^{24} + \dots - 5u + 1$
c_7	$u^{25} + 11u^{23} + \dots + 8u^2 + 1$
c_8	$u^{25} - 3u^{24} + \dots - 11u + 1$
c_9	$u^{25} + u^{24} + \dots + u + 1$
c_{10}	$u^{25} + u^{24} + \dots - 32u + 4$
c_{11}	$u^{25} - u^{24} + \dots + 4u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{25} - 8y^{24} + \dots + 26y - 1$
c_2, c_7	$y^{25} + 22y^{24} + \dots - 16y - 1$
c_3	$y^{25} + 3y^{24} + \dots + 2786y - 1$
c_4, c_9	$y^{25} - 15y^{24} + \dots + 15y - 1$
c_6	$y^{25} - 11y^{24} + \dots + 17y - 1$
c_8	$y^{25} - 13y^{24} + \dots + 9y - 1$
c_{10}	$y^{25} + 3y^{24} + \dots + 288y - 16$
c_{11}	$y^{25} + 7y^{24} + \dots + 12y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.961104 + 0.216757I$ $a = 0.82830 + 1.92200I$ $b = 0.22906 + 1.67734I$	$-7.51458 - 0.88315I$	$16.0452 + 11.7968I$
$u = 0.961104 - 0.216757I$ $a = 0.82830 - 1.92200I$ $b = 0.22906 - 1.67734I$	$-7.51458 + 0.88315I$	$16.0452 - 11.7968I$
$u = -1.027390 + 0.318577I$ $a = -0.54126 + 1.40585I$ $b = -0.482227 + 0.574667I$	$-2.00299 + 2.92583I$	$-3.18488 - 3.98778I$
$u = -1.027390 - 0.318577I$ $a = -0.54126 - 1.40585I$ $b = -0.482227 - 0.574667I$	$-2.00299 - 2.92583I$	$-3.18488 + 3.98778I$
$u = -1.050280 + 0.281886I$ $a = -0.170324 + 0.138425I$ $b = -0.388666 + 0.514577I$	$-1.91337 - 1.24200I$	$-0.78565 + 3.08602I$
$u = -1.050280 - 0.281886I$ $a = -0.170324 - 0.138425I$ $b = -0.388666 - 0.514577I$	$-1.91337 + 1.24200I$	$-0.78565 - 3.08602I$
$u = -0.804206 + 0.207405I$ $a = 0.07088 + 2.53312I$ $b = 0.480000 + 0.331753I$	$-0.82255 + 2.65916I$	$-1.06086 - 5.07656I$
$u = -0.804206 - 0.207405I$ $a = 0.07088 - 2.53312I$ $b = 0.480000 - 0.331753I$	$-0.82255 - 2.65916I$	$-1.06086 + 5.07656I$
$u = 0.224581 + 1.281530I$ $a = -0.380902 + 0.501253I$ $b = 0.958613 + 0.241984I$	$3.26842 + 0.97756I$	$10.95729 - 1.08442I$
$u = 0.224581 - 1.281530I$ $a = -0.380902 - 0.501253I$ $b = 0.958613 - 0.241984I$	$3.26842 - 0.97756I$	$10.95729 + 1.08442I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.606624 + 0.343201I$ $a = 2.31407 + 3.25632I$ $b = -0.752649 + 0.270430I$	$-2.17147 - 6.69375I$	$-0.66320 + 13.27253I$
$u = 0.606624 - 0.343201I$ $a = 2.31407 - 3.25632I$ $b = -0.752649 - 0.270430I$	$-2.17147 + 6.69375I$	$-0.66320 - 13.27253I$
$u = 1.146030 + 0.621494I$ $a = -0.03327 + 1.82480I$ $b = -1.133180 + 0.499131I$	$0.09748 - 7.10521I$	$-4.29341 + 8.11109I$
$u = 1.146030 - 0.621494I$ $a = -0.03327 - 1.82480I$ $b = -1.133180 - 0.499131I$	$0.09748 + 7.10521I$	$-4.29341 - 8.11109I$
$u = 0.662687$ $a = 1.16530$ $b = 1.75227$	6.20286	27.6530
$u = -1.243710 + 0.518011I$ $a = -0.078461 + 1.321280I$ $b = 1.253580 + 0.546810I$	$-3.08291 + 7.79645I$	$-1.39726 - 5.63068I$
$u = -1.243710 - 0.518011I$ $a = -0.078461 - 1.321280I$ $b = 1.253580 - 0.546810I$	$-3.08291 - 7.79645I$	$-1.39726 + 5.63068I$
$u = -0.542151 + 0.004934I$ $a = -1.05258 - 1.72005I$ $b = -1.45499 + 0.00870I$	$0.97373 - 4.98760I$	$0.46119 + 5.79323I$
$u = -0.542151 - 0.004934I$ $a = -1.05258 + 1.72005I$ $b = -1.45499 - 0.00870I$	$0.97373 + 4.98760I$	$0.46119 - 5.79323I$
$u = 0.487288 + 0.127615I$ $a = -1.96339 - 0.21626I$ $b = 1.326810 + 0.164938I$	$3.56108 + 3.01382I$	$10.68140 - 1.21294I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.487288 - 0.127615I$ $a = -1.96339 + 0.21626I$ $b = 1.326810 - 0.164938I$	$3.56108 - 3.01382I$	$10.68140 + 1.21294I$
$u = 1.53369 + 0.11612I$ $a = 0.720611 + 0.425034I$ $b = 0.589988 + 0.052896I$	$-6.81295 - 5.14573I$	$3.72477 + 8.12914I$
$u = 1.53369 - 0.11612I$ $a = 0.720611 - 0.425034I$ $b = 0.589988 - 0.052896I$	$-6.81295 + 5.14573I$	$3.72477 - 8.12914I$
$u = 0.37707 + 1.88086I$ $a = 0.203670 + 0.006984I$ $b = -1.002470 + 0.211304I$	$0.159233 - 0.694810I$	0
$u = 0.37707 - 1.88086I$ $a = 0.203670 - 0.006984I$ $b = -1.002470 - 0.211304I$	$0.159233 + 0.694810I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{25} + 2u^{24} + \dots + 2u + 1)(u^{107} + 3u^{106} + \dots - 10305u - 1139)$
c_2	$(u^{25} + 11u^{23} + \dots - 8u^2 - 1)(u^{107} + u^{106} + \dots - 73u + 151)$
c_3	$(u^{25} + 5u^{24} + \dots + 58u + 1)$ $\cdot (u^{107} - 6u^{106} + \dots - 6634767u + 1340716)$
c_4	$(u^{25} - u^{24} + \dots + u - 1)(u^{107} + 2u^{106} + \dots + 282u + 193)$
c_5	$(u^{25} - 2u^{24} + \dots + 2u - 1)(u^{107} + 3u^{106} + \dots - 10305u - 1139)$
c_6	$(u^{25} - 3u^{24} + \dots - 5u + 1)(u^{107} + 16u^{106} + \dots - 24u - 4)$
c_7	$(u^{25} + 11u^{23} + \dots + 8u^2 + 1)(u^{107} + u^{106} + \dots - 73u + 151)$
c_8	$(u^{25} - 3u^{24} + \dots - 11u + 1)(u^{107} - 8u^{106} + \dots + 29u - 2)$
c_9	$(u^{25} + u^{24} + \dots + u + 1)(u^{107} + 2u^{106} + \dots + 282u + 193)$
c_{10}	$(u^{25} + u^{24} + \dots - 32u + 4)(u^{107} - 2u^{106} + \dots - 10504u + 844)$
c_{11}	$(u^{25} - u^{24} + \dots + 4u - 1)(u^{107} + 2u^{106} + \dots - 26229u - 6833)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$(y^{25} - 8y^{24} + \dots + 26y - 1)$ $\cdot (y^{107} - 55y^{106} + \dots + 22754441y - 1297321)$
c_2, c_7	$(y^{25} + 22y^{24} + \dots - 16y - 1)(y^{107} + 75y^{106} + \dots - 624341y - 22801)$
c_3	$(y^{25} + 3y^{24} + \dots + 2786y - 1)$ $\cdot (y^{107} - 24y^{106} + \dots + 2724074633153y - 1797519392656)$
c_4, c_9	$(y^{25} - 15y^{24} + \dots + 15y - 1)(y^{107} - 58y^{106} + \dots + 979290y - 37249)$
c_6	$(y^{25} - 11y^{24} + \dots + 17y - 1)(y^{107} - 6y^{106} + \dots + 664y - 16)$
c_8	$(y^{25} - 13y^{24} + \dots + 9y - 1)(y^{107} - 16y^{106} + \dots - 35y - 4)$
c_{10}	$(y^{25} + 3y^{24} + \dots + 288y - 16)$ $\cdot (y^{107} - 4y^{106} + \dots + 49093376y - 712336)$
c_{11}	$(y^{25} + 7y^{24} + \dots + 12y - 1)$ $\cdot (y^{107} - 16y^{106} + \dots + 957467627y - 46689889)$