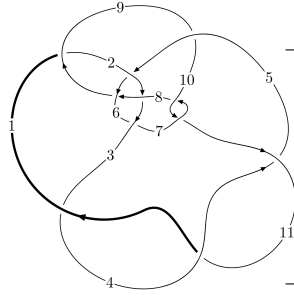
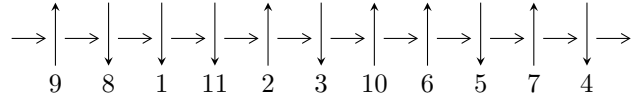


11a₂₇₂ (K11a₂₇₂)

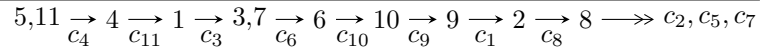


A knot diagram¹

Linearized knot diagram



Solving Sequence



Ideals for irreducible components² of X_{par}

$$I_1^u = \langle -3.61113 \times 10^{167} u^{92} + 2.18472 \times 10^{168} u^{91} + \dots + 6.37635 \times 10^{168} b + 3.55089 \times 10^{168}, \\ -9.18713 \times 10^{168} u^{92} + 2.85060 \times 10^{169} u^{91} + \dots + 6.37635 \times 10^{168} a - 2.67247 \times 10^{170}, \\ u^{93} - 3u^{92} + \dots + 35u + 1 \rangle$$

$$I_2^u = \langle -u^{18} - 4u^{17} + \dots + b + 1, -3u^{18} - 12u^{17} + \dots + a - 6, u^{19} + 4u^{18} + \dots + 6u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 112 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.

$$\mathbf{I. } I_1^u = \langle -3.61 \times 10^{167} u^{92} + 2.18 \times 10^{168} u^{91} + \dots + 6.38 \times 10^{168} b + 3.55 \times 10^{168}, -9.19 \times 10^{168} u^{92} + 2.85 \times 10^{169} u^{91} + \dots + 6.38 \times 10^{168} a - 2.67 \times 10^{170}, u^{93} - 3u^{92} + \dots + 35u + 1 \rangle$$

(i) Arc colorings

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

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

$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^2 + 1 \\ -u^4 - 2u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1.44081u^{92} - 4.47059u^{91} + \dots + 218.541u + 41.9122 \\ 0.0566333u^{92} - 0.342629u^{91} + \dots - 7.62012u - 0.556885 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1.42259u^{92} - 4.52646u^{91} + \dots + 214.273u + 41.5325 \\ -0.0227635u^{92} + 0.0219528u^{91} + \dots - 5.44936u - 0.491557 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1.77836u^{92} - 5.34281u^{91} + \dots + 274.509u + 50.4757 \\ -0.0631020u^{92} + 0.374452u^{91} + \dots - 2.47058u - 0.512941 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1.71526u^{92} - 4.96836u^{91} + \dots + 272.038u + 49.9627 \\ -0.0631020u^{92} + 0.374452u^{91} + \dots - 2.47058u - 0.512941 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -2.58352u^{92} + 7.76269u^{91} + \dots - 386.533u - 70.1350 \\ -0.106632u^{92} + 0.379755u^{91} + \dots + 5.53474u + 0.757562 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 3.39815u^{92} - 10.1775u^{91} + \dots + 545.871u + 102.229 \\ 0.0767390u^{92} - 0.283264u^{91} + \dots - 7.14975u - 1.07497 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 3.39815u^{92} - 10.1775u^{91} + \dots + 545.871u + 102.229 \\ 0.0767390u^{92} - 0.283264u^{91} + \dots - 7.14975u - 1.07497 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $0.120851u^{92} - 0.494471u^{91} + \dots + 138.022u + 32.4350$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{93} - 4u^{92} + \dots - 31u - 1$
c_2	$u^{93} - u^{92} + \dots - 16u^2 - 1$
c_3, c_4, c_{11}	$u^{93} + 3u^{92} + \dots + 35u - 1$
c_5	$u^{93} - 2u^{92} + \dots - 55u^2 + 5$
c_6	$u^{93} - u^{92} + \dots + 1077u - 389$
c_7, c_{10}	$u^{93} - 5u^{92} + \dots - 780u - 145$
c_8	$u^{93} + 6u^{92} + \dots - 15u - 1$
c_9	$u^{93} + u^{92} + \dots + 200551u - 22691$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{93} - 8y^{92} + \dots + 187y - 1$
c_2	$y^{93} - 3y^{92} + \dots - 32y - 1$
c_3, c_4, c_{11}	$y^{93} + 89y^{92} + \dots + 865y - 1$
c_5	$y^{93} - 2y^{92} + \dots + 550y - 25$
c_6	$y^{93} - y^{92} + \dots + 10281979y - 151321$
c_7, c_{10}	$y^{93} + 47y^{92} + \dots - 487800y - 21025$
c_8	$y^{93} + 82y^{91} + \dots - 11y - 1$
c_9	$y^{93} + 11y^{92} + \dots - 8110309523y - 514881481$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.911459 + 0.395130I$ $a = -0.060081 - 1.366940I$ $b = 0.51305 + 1.76784I$	$-2.34640 + 13.18230I$	0
$u = -0.911459 - 0.395130I$ $a = -0.060081 + 1.366940I$ $b = 0.51305 - 1.76784I$	$-2.34640 - 13.18230I$	0
$u = 0.246625 + 0.978794I$ $a = 0.958092 + 0.139258I$ $b = 0.448747 + 0.173387I$	$0.12781 - 2.07574I$	0
$u = 0.246625 - 0.978794I$ $a = 0.958092 - 0.139258I$ $b = 0.448747 - 0.173387I$	$0.12781 + 2.07574I$	0
$u = 0.974658 + 0.386518I$ $a = 0.113415 + 1.095790I$ $b = 0.60161 - 1.59436I$	$-3.52135 - 3.76961I$	0
$u = 0.974658 - 0.386518I$ $a = 0.113415 - 1.095790I$ $b = 0.60161 + 1.59436I$	$-3.52135 + 3.76961I$	0
$u = 0.955720 + 0.446072I$ $a = -0.055176 - 1.052380I$ $b = -0.22885 + 1.73553I$	$-3.32185 - 4.23352I$	0
$u = 0.955720 - 0.446072I$ $a = -0.055176 + 1.052380I$ $b = -0.22885 - 1.73553I$	$-3.32185 + 4.23352I$	0
$u = -0.756553 + 0.865886I$ $a = -0.974997 + 0.306547I$ $b = -0.243449 - 1.167070I$	$-0.98495 - 7.52546I$	0
$u = -0.756553 - 0.865886I$ $a = -0.974997 - 0.306547I$ $b = -0.243449 + 1.167070I$	$-0.98495 + 7.52546I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.732299 + 0.909796I$ $a = 0.707676 + 0.298865I$ $b = 0.879779 - 0.946817I$	$-2.03674 - 1.66542I$	0
$u = 0.732299 - 0.909796I$ $a = 0.707676 - 0.298865I$ $b = 0.879779 + 0.946817I$	$-2.03674 + 1.66542I$	0
$u = 0.602610 + 0.551898I$ $a = 0.57808 + 1.50406I$ $b = 0.617201 - 1.013870I$	$-1.66403 - 4.99482I$	$0. + 12.04743I$
$u = 0.602610 - 0.551898I$ $a = 0.57808 - 1.50406I$ $b = 0.617201 + 1.013870I$	$-1.66403 + 4.99482I$	$0. - 12.04743I$
$u = 0.210852 + 1.187670I$ $a = -0.543462 - 0.727634I$ $b = -0.24590 + 1.78211I$	$0.59025 - 5.59173I$	0
$u = 0.210852 - 1.187670I$ $a = -0.543462 + 0.727634I$ $b = -0.24590 - 1.78211I$	$0.59025 + 5.59173I$	0
$u = -0.042552 + 1.208860I$ $a = 1.181090 + 0.101333I$ $b = 1.82870 + 0.41508I$	$-1.60314 - 3.04863I$	0
$u = -0.042552 - 1.208860I$ $a = 1.181090 - 0.101333I$ $b = 1.82870 - 0.41508I$	$-1.60314 + 3.04863I$	0
$u = 0.738015 + 0.267719I$ $a = -0.644949 - 1.095980I$ $b = 0.58532 + 1.33188I$	$-2.67687 + 0.69646I$	$-9.23370 + 0.62043I$
$u = 0.738015 - 0.267719I$ $a = -0.644949 + 1.095980I$ $b = 0.58532 - 1.33188I$	$-2.67687 - 0.69646I$	$-9.23370 - 0.62043I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.777826 + 0.016678I$ $a = 0.62554 - 1.27383I$ $b = 0.198182 + 1.154930I$	$-2.91425 - 1.94861I$	$-10.28563 + 0.40390I$
$u = 0.777826 - 0.016678I$ $a = 0.62554 + 1.27383I$ $b = 0.198182 - 1.154930I$	$-2.91425 + 1.94861I$	$-10.28563 - 0.40390I$
$u = 0.288392 + 0.707750I$ $a = 0.768676 + 0.217271I$ $b = 0.005605 + 0.312661I$	$0.13872 - 2.01683I$	$0.67333 + 3.98715I$
$u = 0.288392 - 0.707750I$ $a = 0.768676 - 0.217271I$ $b = 0.005605 - 0.312661I$	$0.13872 + 2.01683I$	$0.67333 - 3.98715I$
$u = -0.654822 + 0.391719I$ $a = -1.263680 - 0.402248I$ $b = 0.260205 - 0.435804I$	$0.67894 + 7.53424I$	$-0.24390 - 7.52483I$
$u = -0.654822 - 0.391719I$ $a = -1.263680 + 0.402248I$ $b = 0.260205 + 0.435804I$	$0.67894 - 7.53424I$	$-0.24390 + 7.52483I$
$u = -0.591766 + 0.464752I$ $a = -0.154401 - 0.822190I$ $b = 0.82840 + 1.15264I$	$1.00153 - 3.54334I$	$1.58809 + 0.30458I$
$u = -0.591766 - 0.464752I$ $a = -0.154401 + 0.822190I$ $b = 0.82840 - 1.15264I$	$1.00153 + 3.54334I$	$1.58809 - 0.30458I$
$u = 0.812390 + 0.967240I$ $a = -0.587684 - 0.393263I$ $b = -0.394533 + 1.276390I$	$-1.92498 - 2.34475I$	0
$u = 0.812390 - 0.967240I$ $a = -0.587684 + 0.393263I$ $b = -0.394533 - 1.276390I$	$-1.92498 + 2.34475I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.672569 + 0.279083I$ $a = 0.06726 + 1.89775I$ $b = -0.49534 - 1.65370I$	$-1.19275 + 5.34921I$	$0.55034 - 10.82397I$
$u = -0.672569 - 0.279083I$ $a = 0.06726 - 1.89775I$ $b = -0.49534 + 1.65370I$	$-1.19275 - 5.34921I$	$0.55034 + 10.82397I$
$u = 0.003533 + 1.274680I$ $a = 0.525082 + 0.174725I$ $b = 0.54755 - 2.88462I$	$2.75039 + 4.22339I$	0
$u = 0.003533 - 1.274680I$ $a = 0.525082 - 0.174725I$ $b = 0.54755 + 2.88462I$	$2.75039 - 4.22339I$	0
$u = -0.117069 + 1.283880I$ $a = -1.315870 + 0.095206I$ $b = -1.012990 - 0.406576I$	$-1.28790 + 5.38199I$	0
$u = -0.117069 - 1.283880I$ $a = -1.315870 - 0.095206I$ $b = -1.012990 + 0.406576I$	$-1.28790 - 5.38199I$	0
$u = -0.176650 + 1.277580I$ $a = 0.799827 - 0.504979I$ $b = 0.09805 + 1.48760I$	$-0.818431 - 0.586473I$	0
$u = -0.176650 - 1.277580I$ $a = 0.799827 + 0.504979I$ $b = 0.09805 - 1.48760I$	$-0.818431 + 0.586473I$	0
$u = 0.004246 + 1.329120I$ $a = -0.858955 + 0.481977I$ $b = -1.18895 - 1.40669I$	$3.86557 + 1.99478I$	0
$u = 0.004246 - 1.329120I$ $a = -0.858955 - 0.481977I$ $b = -1.18895 + 1.40669I$	$3.86557 - 1.99478I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.305242 + 1.326130I$ $a = -0.472815 + 0.658481I$ $b = -1.51214 - 1.46798I$	$5.23834 + 5.65499I$	0
$u = -0.305242 - 1.326130I$ $a = -0.472815 - 0.658481I$ $b = -1.51214 + 1.46798I$	$5.23834 - 5.65499I$	0
$u = 0.535771 + 0.331980I$ $a = 0.561496 - 0.224728I$ $b = 0.275495 + 0.063895I$	$-1.05560 - 1.04516I$	$-5.24999 + 4.73518I$
$u = 0.535771 - 0.331980I$ $a = 0.561496 + 0.224728I$ $b = 0.275495 - 0.063895I$	$-1.05560 + 1.04516I$	$-5.24999 - 4.73518I$
$u = -0.135847 + 1.378470I$ $a = 0.378488 + 0.952853I$ $b = -0.626385 - 0.559687I$	$7.46821 + 1.40401I$	0
$u = -0.135847 - 1.378470I$ $a = 0.378488 - 0.952853I$ $b = -0.626385 + 0.559687I$	$7.46821 - 1.40401I$	0
$u = 0.275110 + 1.366140I$ $a = -0.482588 - 0.137919I$ $b = -0.26114 + 1.75093I$	$2.40844 - 2.97328I$	0
$u = 0.275110 - 1.366140I$ $a = -0.482588 + 0.137919I$ $b = -0.26114 - 1.75093I$	$2.40844 + 2.97328I$	0
$u = -0.172915 + 1.402530I$ $a = 0.563359 + 0.548099I$ $b = -0.151156 + 0.172009I$	$5.61748 - 0.19647I$	0
$u = -0.172915 - 1.402530I$ $a = 0.563359 - 0.548099I$ $b = -0.151156 - 0.172009I$	$5.61748 + 0.19647I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.07853 + 1.41526I$ $a = -0.385092 + 0.973133I$ $b = -0.164397 - 0.529226I$	$7.62011 - 0.60893I$	0
$u = 0.07853 - 1.41526I$ $a = -0.385092 - 0.973133I$ $b = -0.164397 + 0.529226I$	$7.62011 + 0.60893I$	0
$u = -0.576840 + 0.056978I$ $a = 1.01392 + 1.04721I$ $b = -0.478791 - 0.978508I$	$0.93991 + 2.24276I$	$2.13382 - 6.20149I$
$u = -0.576840 - 0.056978I$ $a = 1.01392 - 1.04721I$ $b = -0.478791 + 0.978508I$	$0.93991 - 2.24276I$	$2.13382 + 6.20149I$
$u = -0.16657 + 1.41522I$ $a = -0.737844 + 0.359479I$ $b = 0.05293 - 2.26413I$	$0.95617 + 6.95484I$	0
$u = -0.16657 - 1.41522I$ $a = -0.737844 - 0.359479I$ $b = 0.05293 + 2.26413I$	$0.95617 - 6.95484I$	0
$u = -0.26162 + 1.41387I$ $a = -0.829533 + 0.679950I$ $b = -1.27505 - 1.88111I$	$4.22352 + 8.75550I$	0
$u = -0.26162 - 1.41387I$ $a = -0.829533 - 0.679950I$ $b = -1.27505 + 1.88111I$	$4.22352 - 8.75550I$	0
$u = 0.17440 + 1.45659I$ $a = -0.717413 - 0.360056I$ $b = -1.90212 + 1.94824I$	$5.89949 - 6.94617I$	0
$u = 0.17440 - 1.45659I$ $a = -0.717413 + 0.360056I$ $b = -1.90212 - 1.94824I$	$5.89949 + 6.94617I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.527457 + 0.063186I$ $a = -0.07687 - 2.62551I$ $b = -0.357457 + 1.182460I$	$-4.97774 - 3.20790I$	$-8.72666 + 3.61708I$
$u = -0.527457 - 0.063186I$ $a = -0.07687 + 2.62551I$ $b = -0.357457 - 1.182460I$	$-4.97774 + 3.20790I$	$-8.72666 - 3.61708I$
$u = -0.24734 + 1.45630I$ $a = -0.397332 - 0.787003I$ $b = 0.343876 + 0.308196I$	$6.62651 + 10.84470I$	0
$u = -0.24734 - 1.45630I$ $a = -0.397332 + 0.787003I$ $b = 0.343876 - 0.308196I$	$6.62651 - 10.84470I$	0
$u = -0.005024 + 0.519936I$ $a = 1.53006 + 0.63638I$ $b = -0.128808 + 0.625732I$	$0.19375 - 2.00732I$	$1.90291 + 4.08224I$
$u = -0.005024 - 0.519936I$ $a = 1.53006 - 0.63638I$ $b = -0.128808 - 0.625732I$	$0.19375 + 2.00732I$	$1.90291 - 4.08224I$
$u = 0.14435 + 1.47435I$ $a = 0.051712 + 0.613325I$ $b = -0.177691 - 0.333417I$	$6.55607 - 3.56363I$	0
$u = 0.14435 - 1.47435I$ $a = 0.051712 - 0.613325I$ $b = -0.177691 + 0.333417I$	$6.55607 + 3.56363I$	0
$u = 0.21979 + 1.46839I$ $a = 0.370817 - 0.468364I$ $b = 0.022326 + 0.589901I$	$4.94375 - 3.83324I$	0
$u = 0.21979 - 1.46839I$ $a = 0.370817 + 0.468364I$ $b = 0.022326 - 0.589901I$	$4.94375 + 3.83324I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.19636 + 1.47715I$ $a = 0.575084 - 0.439374I$ $b = 1.51693 + 1.22032I$	$7.35184 - 0.66069I$	0
$u = -0.19636 - 1.47715I$ $a = 0.575084 + 0.439374I$ $b = 1.51693 - 1.22032I$	$7.35184 + 0.66069I$	0
$u = -0.445879 + 0.223933I$ $a = -0.72430 + 2.47527I$ $b = 0.63559 - 1.52906I$	$-4.38663 + 4.68917I$	$-11.13071 - 7.83950I$
$u = -0.445879 - 0.223933I$ $a = -0.72430 - 2.47527I$ $b = 0.63559 + 1.52906I$	$-4.38663 - 4.68917I$	$-11.13071 + 7.83950I$
$u = 0.317173 + 0.374066I$ $a = -0.92898 - 1.56886I$ $b = -0.69662 + 2.12690I$	$-0.13387 - 4.83140I$	$-1.38014 + 12.10335I$
$u = 0.317173 - 0.374066I$ $a = -0.92898 + 1.56886I$ $b = -0.69662 - 2.12690I$	$-0.13387 + 4.83140I$	$-1.38014 - 12.10335I$
$u = 0.23285 + 1.49755I$ $a = 0.745388 + 0.647957I$ $b = 0.86766 - 1.24614I$	$4.93482 - 8.13681I$	0
$u = 0.23285 - 1.49755I$ $a = 0.745388 - 0.647957I$ $b = 0.86766 + 1.24614I$	$4.93482 + 8.13681I$	0
$u = 0.36704 + 1.48082I$ $a = 0.728699 + 0.535940I$ $b = 1.35721 - 1.37957I$	$2.42961 - 8.56668I$	0
$u = 0.36704 - 1.48082I$ $a = 0.728699 - 0.535940I$ $b = 1.35721 + 1.37957I$	$2.42961 + 8.56668I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.34922 + 1.49380I$ $a = 0.709563 - 0.650111I$ $b = 1.26940 + 1.85557I$	$3.7167 + 17.7393I$	0
$u = -0.34922 - 1.49380I$ $a = 0.709563 + 0.650111I$ $b = 1.26940 - 1.85557I$	$3.7167 - 17.7393I$	0
$u = 0.35894 + 1.51768I$ $a = -0.594952 - 0.533137I$ $b = -1.05454 + 1.85472I$	$2.98943 - 8.99089I$	0
$u = 0.35894 - 1.51768I$ $a = -0.594952 + 0.533137I$ $b = -1.05454 - 1.85472I$	$2.98943 + 8.99089I$	0
$u = 0.10285 + 1.58207I$ $a = 0.322796 - 0.166607I$ $b = -0.611667 + 0.333370I$	$7.99033 - 3.67115I$	0
$u = 0.10285 - 1.58207I$ $a = 0.322796 + 0.166607I$ $b = -0.611667 - 0.333370I$	$7.99033 + 3.67115I$	0
$u = -0.100806 + 0.397094I$ $a = 2.20139 + 0.48685I$ $b = -0.210768 + 0.748546I$	$0.18872 - 2.00916I$	$2.24464 + 3.56470I$
$u = -0.100806 - 0.397094I$ $a = 2.20139 - 0.48685I$ $b = -0.210768 - 0.748546I$	$0.18872 + 2.00916I$	$2.24464 - 3.56470I$
$u = -0.186714 + 0.346826I$ $a = 1.35275 + 1.99552I$ $b = -0.398511 + 0.161176I$	$2.29833 - 0.12628I$	$10.47295 - 1.82234I$
$u = -0.186714 - 0.346826I$ $a = 1.35275 - 1.99552I$ $b = -0.398511 - 0.161176I$	$2.29833 + 0.12628I$	$10.47295 + 1.82234I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.03589 + 1.65255I$ $a = -0.401052 - 0.252951I$ $b = -0.266809 + 0.186901I$	$8.28168 - 4.75781I$	0
$u = -0.03589 - 1.65255I$ $a = -0.401052 + 0.252951I$ $b = -0.266809 - 0.186901I$	$8.28168 + 4.75781I$	0
$u = -0.0336230$ $a = 35.5555$ $b = -0.339499$	2.39628	28.3130

$$\langle -u^{18} - 4u^{17} + \dots + b + 1, -3u^{18} - 12u^{17} + \dots + a - 6, u^{19} + 4u^{18} + \dots + 6u + 1 \rangle$$

II. $I_2^u =$

(i) Arc colorings

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

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

$$a_4 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^2 + 1 \\ -u^4 - 2u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 3u^{18} + 12u^{17} + \dots + 15u + 6 \\ u^{18} + 4u^{17} + \dots - 3u - 1 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 3u^{18} + 12u^{17} + \dots + 13u + 6 \\ -u^6 - 2u^5 - 5u^4 - 6u^3 - 6u^2 - 4u - 1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^{18} + 4u^{17} + \dots + 8u + 6 \\ 2u^{17} + 7u^{16} + \dots + 8u + 1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u^{18} + 6u^{17} + \dots + 16u + 7 \\ 2u^{17} + 7u^{16} + \dots + 8u + 1 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -3u^{18} - 12u^{17} + \dots - 30u - 11 \\ u^3 + u^2 + 2u + 1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u^{18} + 3u^{17} + \dots + 21u + 14 \\ 2u^{17} + 8u^{16} + \dots + 13u^2 + 5u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u^{18} + 3u^{17} + \dots + 21u + 14 \\ 2u^{17} + 8u^{16} + \dots + 13u^2 + 5u \end{pmatrix}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes

$$= -6u^{18} - 28u^{17} - 127u^{16} - 363u^{15} - 940u^{14} - 1903u^{13} - 3460u^{12} - 5244u^{11} - 7119u^{10} - 8212u^9 - 8436u^8 - 7329u^7 - 5610u^6 - 3541u^5 - 1966u^4 - 855u^3 - 370u^2 - 101u - 43$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{19} + u^{18} + \dots + 4u^2 - 1$
c_2	$u^{19} - 4u^{17} + \dots - u - 1$
c_3, c_4	$u^{19} + 4u^{18} + \dots + 6u + 1$
c_5	$u^{19} + u^{18} + \dots - 3u - 1$
c_6	$u^{19} - 2u^{18} + \dots + 4u + 7$
c_7	$u^{19} + 6u^{18} + \dots + 3u + 1$
c_8	$u^{19} - 3u^{18} + \dots - u^2 - 1$
c_9	$u^{19} - 3u^{17} + \dots - 8u - 7$
c_{10}	$u^{19} - 6u^{18} + \dots + 3u - 1$
c_{11}	$u^{19} - 4u^{18} + \dots + 6u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{19} - 9y^{18} + \dots + 8y - 1$
c_2	$y^{19} - 8y^{18} + \dots + 9y - 1$
c_3, c_4, c_{11}	$y^{19} + 20y^{18} + \dots + 2y - 1$
c_5	$y^{19} + 5y^{18} + \dots + 3y - 1$
c_6	$y^{19} + 6y^{18} + \dots + 184y - 49$
c_7, c_{10}	$y^{19} + 10y^{18} + \dots - 19y - 1$
c_8	$y^{19} - 5y^{18} + \dots - 2y - 1$
c_9	$y^{19} - 6y^{18} + \dots + 190y - 49$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.822625 + 0.504824I$ $a = -0.271844 + 1.136820I$ $b = -0.45867 - 1.52566I$	$-2.64209 + 4.02888I$	$-1.74103 - 7.17564I$
$u = -0.822625 - 0.504824I$ $a = -0.271844 - 1.136820I$ $b = -0.45867 + 1.52566I$	$-2.64209 - 4.02888I$	$-1.74103 + 7.17564I$
$u = -0.781988 + 0.922190I$ $a = 0.652220 - 0.305768I$ $b = 0.590784 + 0.988016I$	$-1.58761 + 1.75063I$	$3.91034 - 0.25504I$
$u = -0.781988 - 0.922190I$ $a = 0.652220 + 0.305768I$ $b = 0.590784 - 0.988016I$	$-1.58761 - 1.75063I$	$3.91034 + 0.25504I$
$u = -0.013553 + 1.225120I$ $a = 1.212320 + 0.042368I$ $b = 1.27378 + 0.82533I$	$-1.17342 - 3.71954I$	$0.20565 + 7.01198I$
$u = -0.013553 - 1.225120I$ $a = 1.212320 - 0.042368I$ $b = 1.27378 - 0.82533I$	$-1.17342 + 3.71954I$	$0.20565 - 7.01198I$
$u = 0.123826 + 1.275680I$ $a = -0.494186 - 0.312606I$ $b = -0.56449 + 2.86824I$	$2.78952 - 5.37290I$	$1.47834 + 8.00232I$
$u = 0.123826 - 1.275680I$ $a = -0.494186 + 0.312606I$ $b = -0.56449 - 2.86824I$	$2.78952 + 5.37290I$	$1.47834 - 8.00232I$
$u = -0.128745 + 0.658998I$ $a = -1.85503 + 0.55800I$ $b = -0.278888 - 0.794541I$	$-3.42166 + 4.09475I$	$-4.31370 - 4.86850I$
$u = -0.128745 - 0.658998I$ $a = -1.85503 - 0.55800I$ $b = -0.278888 + 0.794541I$	$-3.42166 - 4.09475I$	$-4.31370 + 4.86850I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.112895 + 1.380490I$ $a = 0.309357 + 0.971465I$ $b = -0.317626 - 0.556721I$	$6.97273 + 1.35437I$	$-1.04092 - 3.37423I$
$u = -0.112895 - 1.380490I$ $a = 0.309357 - 0.971465I$ $b = -0.317626 + 0.556721I$	$6.97273 - 1.35437I$	$-1.04092 + 3.37423I$
$u = -0.27617 + 1.46327I$ $a = -0.729976 + 0.560596I$ $b = -1.12516 - 1.66255I$	$3.59220 + 7.81356I$	$0.86440 - 5.38907I$
$u = -0.27617 - 1.46327I$ $a = -0.729976 - 0.560596I$ $b = -1.12516 + 1.66255I$	$3.59220 - 7.81356I$	$0.86440 + 5.38907I$
$u = 0.203505 + 0.446592I$ $a = 1.330970 + 0.269712I$ $b = 0.18876 - 1.94856I$	$-0.18250 + 4.08169I$	$-4.19142 - 1.98059I$
$u = 0.203505 - 0.446592I$ $a = 1.330970 - 0.269712I$ $b = 0.18876 + 1.94856I$	$-0.18250 - 4.08169I$	$-4.19142 + 1.98059I$
$u = -0.06627 + 1.60382I$ $a = 0.298071 + 0.037730I$ $b = -0.184580 - 0.575875I$	$7.68023 + 3.97321I$	$-3.79021 - 7.05784I$
$u = -0.06627 - 1.60382I$ $a = 0.298071 - 0.037730I$ $b = -0.184580 + 0.575875I$	$7.68023 - 3.97321I$	$-3.79021 + 7.05784I$
$u = -0.250170$ $a = 5.09620$ $b = -0.247831$	2.26413	-32.7630

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{19} + u^{18} + \dots + 4u^2 - 1)(u^{93} - 4u^{92} + \dots - 31u - 1)$
c_2	$(u^{19} - 4u^{17} + \dots - u - 1)(u^{93} - u^{92} + \dots - 16u^2 - 1)$
c_3, c_4	$(u^{19} + 4u^{18} + \dots + 6u + 1)(u^{93} + 3u^{92} + \dots + 35u - 1)$
c_5	$(u^{19} + u^{18} + \dots - 3u - 1)(u^{93} - 2u^{92} + \dots - 55u^2 + 5)$
c_6	$(u^{19} - 2u^{18} + \dots + 4u + 7)(u^{93} - u^{92} + \dots + 1077u - 389)$
c_7	$(u^{19} + 6u^{18} + \dots + 3u + 1)(u^{93} - 5u^{92} + \dots - 780u - 145)$
c_8	$(u^{19} - 3u^{18} + \dots - u^2 - 1)(u^{93} + 6u^{92} + \dots - 15u - 1)$
c_9	$(u^{19} - 3u^{17} + \dots - 8u - 7)(u^{93} + u^{92} + \dots + 200551u - 22691)$
c_{10}	$(u^{19} - 6u^{18} + \dots + 3u - 1)(u^{93} - 5u^{92} + \dots - 780u - 145)$
c_{11}	$(u^{19} - 4u^{18} + \dots + 6u - 1)(u^{93} + 3u^{92} + \dots + 35u - 1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{19} - 9y^{18} + \dots + 8y - 1)(y^{93} - 8y^{92} + \dots + 187y - 1)$
c_2	$(y^{19} - 8y^{18} + \dots + 9y - 1)(y^{93} - 3y^{92} + \dots - 32y - 1)$
c_3, c_4, c_{11}	$(y^{19} + 20y^{18} + \dots + 2y - 1)(y^{93} + 89y^{92} + \dots + 865y - 1)$
c_5	$(y^{19} + 5y^{18} + \dots + 3y - 1)(y^{93} - 2y^{92} + \dots + 550y - 25)$
c_6	$(y^{19} + 6y^{18} + \dots + 184y - 49)$ $\cdot (y^{93} - y^{92} + \dots + 10281979y - 151321)$
c_7, c_{10}	$(y^{19} + 10y^{18} + \dots - 19y - 1)(y^{93} + 47y^{92} + \dots - 487800y - 21025)$
c_8	$(y^{19} - 5y^{18} + \dots - 2y - 1)(y^{93} + 82y^{91} + \dots - 11y - 1)$
c_9	$(y^{19} - 6y^{18} + \dots + 190y - 49)$ $\cdot (y^{93} + 11y^{92} + \dots - 8110309523y - 514881481)$