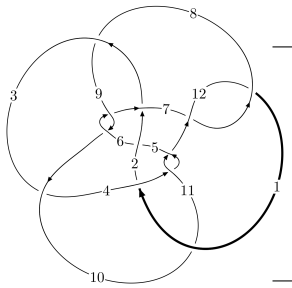
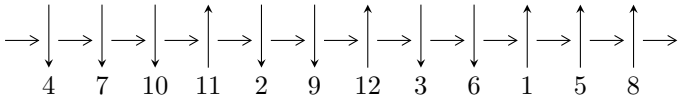
$12a_{1078}$ $(K12a_{1078})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -1.42254 \times 10^{1026} u^{182} - 1.43895 \times 10^{1026} u^{181} + \cdots + 2.00299 \times 10^{1023} b + 6.70498 \times 10^{1025},$$
$$- 2.27742 \times 10^{1027} u^{182} - 2.16805 \times 10^{1027} u^{181} + \cdots + 2.00299 \times 10^{1023} a + 1.25093 \times 10^{1027},$$
$$4u^{183} + 2u^{182} + \cdots - 2u + 1 \rangle$$
$$I_2^u = \langle 3.84908 \times 10^{38} u^{44} - 8.37838 \times 10^{37} u^{43} + \cdots + 2.17731 \times 10^{35} b - 1.13314 \times 10^{38},$$
$$5.31620 \times 10^{38} u^{44} - 2.05529 \times 10^{38} u^{43} + \cdots + 2.17731 \times 10^{35} a - 1.03891 \times 10^{38},\ 4u^{45} - 2u^{44} + \cdots - 3u +$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 228 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. $\boldsymbol{I_1^u = \langle -1.42 \times 10^{1026} u^{182} - 1.44 \times 10^{1026} u^{181} + \cdots + 2.00 \times 10^{1023} b + 6.70 \times 10^{1025},\ -2.28 \times 10^{1027} u^{182} - 2.17 \times 10^{1027} u^{181} + \cdots + 2.00 \times 10^{1023} a + 1.25 \times 10^{1027},\ 4u^{183} + 2u^{182} + \cdots - 2u + 1 \rangle}$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} 11370.1u^{182} + 10824.1u^{181} + \cdots - 1274.29u - 6245.32 \\ 710.207u^{182} + 718.400u^{181} + \cdots + 45.9882u - 334.749 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 9952.46u^{182} + 9437.37u^{181} + \cdots - 1208.38u - 5503.48 \\ 2069.74u^{182} + 2066.80u^{181} + \cdots + 22.0905u - 1020.16 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 3805.30u^{182} + 3725.93u^{181} + \cdots - 166.903u - 1982.81 \\ -3719.84u^{182} - 3655.64u^{181} + \cdots + 148.962u + 1917.08 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -5989.26u^{182} - 5778.96u^{181} + \cdots + 488.940u + 3208.35 \\ 558.228u^{182} + 428.115u^{181} + \cdots - 286.701u - 435.982 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 5881.98u^{182} + 5475.97u^{181} + \cdots - 972.925u - 3368.03 \\ 2981.75u^{182} + 2954.78u^{181} + \cdots - 32.4516u - 1501.70 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -4703.80u^{182} - 4514.72u^{181} + \cdots + 448.847u + 2549.52 \\ -727.237u^{182} - 836.129u^{181} + \cdots - 246.608u + 222.850 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 10291.8u^{182} + 9908.12u^{181} + \cdots - 861.800u - 5561.15 \\ -584.062u^{182} - 424.879u^{181} + \cdots + 411.316u + 466.074 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -12319.2u^{182} - 12117.3u^{181} + \cdots + 361.928u + 6357.71 \\ 11019.1u^{182} + 10663.0u^{181} + \cdots - 782.092u - 5881.84 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -38193.2u^{182} - 36262.8u^{181} + \cdots + 4490.93u + 21122.6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$16(16u^{183}+252u^{182}+\cdots+449u-17)$
c_2	$4(4u^{183}-14u^{182}+\cdots+864065u-160229)$
c_3	$u^{183}-3u^{182}+\cdots+285506u-6964$
c_4, c_{11}	$u^{183}+5u^{182}+\cdots+1386431u+62039$
c_5	$u^{183}-4u^{182}+\cdots-17118874u-3362836$
c_6, c_9	$u^{183}-8u^{182}+\cdots-9204u+773$
c_7, c_{12}	$4(4u^{183}-2u^{182}+\cdots-2u-1)$
c_8	$4(4u^{183}-2u^{182}+\cdots+4507202u-289523)$
c_{10}	$u^{183}+6u^{182}+\cdots+5277708u+199568$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$256(256y^{183} - 2416y^{182} + \cdots - 5697y - 289)$
c_2	$16(16y^{183} + 404y^{182} + \cdots + 7.51074 \times 10^{11}y - 2.56733 \times 10^{10})$
c_3	$y^{183} - 55y^{182} + \cdots + 3956764060y - 48497296$
c_4, c_{11}	$y^{183} - 121y^{182} + \cdots + 995844174085y - 3848837521$
c_5	$y^{183} - 20y^{182} + \cdots + 1169699756063260y - 11308665962896$
c_6, c_9	$y^{183} + 110y^{182} + \cdots - 36021254y - 597529$
c_7, c_{12}	$16(16y^{183} - 1564y^{182} + \cdots + 82y - 1)$
c_8	$16(16y^{183} + 196y^{182} + \cdots + 3.04473 \times 10^{12}y - 8.38236 \times 10^{10})$
c_{10}	$y^{183} - 18y^{182} + \cdots + 2408586039216y - 39827386624$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.435994+0.892598I$ $a=\ \ 0.844089+0.425621I$ $b=\ \ 1.196650+0.717109I$	$2.66114-4.14393I$	0
$u=-0.435994-0.892598I$ $a=\ \ 0.844089-0.425621I$ $b=\ \ 1.196650-0.717109I$	$2.66114+4.14393I$	0
$u=-0.299647+0.938486I$ $a=\ \ 0.725434+0.712589I$ $b=-0.019019+0.975825I$	$-0.93979+9.22059I$	0
$u=-0.299647-0.938486I$ $a=\ \ 0.725434-0.712589I$ $b=-0.019019-0.975825I$	$-0.93979-9.22059I$	0
$u=-0.179097+0.961498I$ $a=\ \ 0.979299+0.643036I$ $b=-0.012177+0.515658I$	$-1.03964-4.24096I$	0
$u=-0.179097-0.961498I$ $a=\ \ 0.979299-0.643036I$ $b=-0.012177-0.515658I$	$-1.03964+4.24096I$	0
$u=-0.968063+0.136793I$ $a=\ \ 1.124980+0.344421I$ $b=-0.450543+0.406317I$	$1.60840-1.88368I$	0
$u=-0.968063-0.136793I$ $a=\ \ 1.124980-0.344421I$ $b=-0.450543-0.406317I$	$1.60840+1.88368I$	0
$u=-0.791124+0.673148I$ $a=\ \ 0.377369+0.292424I$ $b=-0.893997-0.018281I$	$1.37483-0.55344I$	0
$u=-0.791124-0.673148I$ $a=\ \ 0.377369-0.292424I$ $b=-0.893997+0.018281I$	$1.37483+0.55344I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.927068+0.493900I$ $a=-0.081388+0.179395I$ $b=-0.730734-0.088837I$	$1.27870-0.70102I$	0
$u=-0.927068-0.493900I$ $a=-0.081388-0.179395I$ $b=-0.730734+0.088837I$	$1.27870+0.70102I$	0
$u=1.023140+0.258102I$ $a=0.251436+0.899798I$ $b=-0.552228+0.156044I$	$5.93378-2.01906I$	0
$u=1.023140-0.258102I$ $a=0.251436-0.899798I$ $b=-0.552228-0.156044I$	$5.93378+2.01906I$	0
$u=-0.201244+1.044460I$ $a=0.051901-0.539196I$ $b=1.267020-0.259232I$	$0.16638-3.50169I$	0
$u=-0.201244-1.044460I$ $a=0.051901+0.539196I$ $b=1.267020+0.259232I$	$0.16638+3.50169I$	0
$u=-0.884541+0.301835I$ $a=-0.884826+0.843686I$ $b=0.195765-1.292020I$	$-1.19560-1.79116I$	0
$u=-0.884541-0.301835I$ $a=-0.884826-0.843686I$ $b=0.195765+1.292020I$	$-1.19560+1.79116I$	0
$u=0.245347+1.037970I$ $a=-1.246090-0.362330I$ $b=0.904434+0.036830I$	$-1.37820+3.10134I$	0
$u=0.245347-1.037970I$ $a=-1.246090+0.362330I$ $b=0.904434-0.036830I$	$-1.37820-3.10134I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.007680 + 0.351734I$ $a = 1.111550 - 0.050183I$ $b = -0.373220 - 0.770569I$	$1.52893 + 0.67044I$	0
$u = 1.007680 - 0.351734I$ $a = 1.111550 + 0.050183I$ $b = -0.373220 + 0.770569I$	$1.52893 - 0.67044I$	0
$u = 0.563418 + 0.923911I$ $a = 0.466978 + 0.198414I$ $b = -1.266650 + 0.494142I$	$5.96882 - 2.77936I$	0
$u = 0.563418 - 0.923911I$ $a = 0.466978 - 0.198414I$ $b = -1.266650 - 0.494142I$	$5.96882 + 2.77936I$	0
$u = 0.318840 + 1.038110I$ $a = 0.716550 - 0.753529I$ $b = 0.057847 - 0.951617I$	$-4.79655 - 2.89380I$	0
$u = 0.318840 - 1.038110I$ $a = 0.716550 + 0.753529I$ $b = 0.057847 + 0.951617I$	$-4.79655 + 2.89380I$	0
$u = -0.691890 + 0.588159I$ $a = 0.613586 + 0.354824I$ $b = -0.298548 - 0.446290I$	$1.80572 + 3.17497I$	0
$u = -0.691890 - 0.588159I$ $a = 0.613586 - 0.354824I$ $b = -0.298548 + 0.446290I$	$1.80572 - 3.17497I$	0
$u = -1.077300 + 0.189760I$ $a = 0.203809 + 0.380584I$ $b = -0.789435 - 1.019960I$	$1.54583 - 0.00514I$	0
$u = -1.077300 - 0.189760I$ $a = 0.203809 - 0.380584I$ $b = -0.789435 + 1.019960I$	$1.54583 + 0.00514I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.811749 + 0.390367I$ $a = -0.906879 - 0.564551I$ $b = 0.402641 + 0.931175I$	$-1.10562 + 5.08781I$	0
$u = 0.811749 - 0.390367I$ $a = -0.906879 + 0.564551I$ $b = 0.402641 - 0.931175I$	$-1.10562 - 5.08781I$	0
$u = -1.014490 + 0.423498I$ $a = -0.578315 + 0.697424I$ $b = -0.360178 - 0.895200I$	$1.17751 - 5.41890I$	0
$u = -1.014490 - 0.423498I$ $a = -0.578315 - 0.697424I$ $b = -0.360178 + 0.895200I$	$1.17751 + 5.41890I$	0
$u = 0.996685 + 0.488016I$ $a = -0.494469 - 0.641126I$ $b = -0.386486 + 0.577659I$	$-0.01244 + 3.89579I$	0
$u = 0.996685 - 0.488016I$ $a = -0.494469 + 0.641126I$ $b = -0.386486 - 0.577659I$	$-0.01244 - 3.89579I$	0
$u = 1.032780 + 0.420974I$ $a = 1.129910 + 0.411137I$ $b = -1.199630 + 0.471004I$	$5.41047 - 3.94815I$	0
$u = 1.032780 - 0.420974I$ $a = 1.129910 - 0.411137I$ $b = -1.199630 - 0.471004I$	$5.41047 + 3.94815I$	0
$u = 1.101950 + 0.288670I$ $a = -0.288416 - 0.505335I$ $b = -0.563293 + 1.116030I$	$6.33450 + 4.14277I$	0
$u = 1.101950 - 0.288670I$ $a = -0.288416 + 0.505335I$ $b = -0.563293 - 1.116030I$	$6.33450 - 4.14277I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.834096+0.109112I$ $a=-3.07979-0.00775I$ $b=\ \ 1.43386-0.77030I$	$0.57305-1.40697I$	0
$u=-0.834096-0.109112I$ $a=-3.07979+0.00775I$ $b=\ \ 1.43386+0.77030I$	$0.57305+1.40697I$	0
$u=\ \ 0.836413+0.062418I$ $a=-2.99172+0.61737I$ $b=\ \ 1.057480+0.593839I$	$4.69954-2.73836I$	0
$u=\ \ 0.836413-0.062418I$ $a=-2.99172-0.61737I$ $b=\ \ 1.057480-0.593839I$	$4.69954+2.73836I$	0
$u=\ \ 0.630957+0.550000I$ $a=-0.732526-0.182055I$ $b=\ \ 0.749114+0.488562I$	$-0.58612+4.96450I$	0
$u=\ \ 0.630957-0.550000I$ $a=-0.732526+0.182055I$ $b=\ \ 0.749114-0.488562I$	$-0.58612-4.96450I$	0
$u=\ \ 0.995413+0.604085I$ $a=-0.448626-0.325962I$ $b=\ \ 0.0927846-0.0130873I$	$-0.24551+4.75126I$	0
$u=\ \ 0.995413-0.604085I$ $a=-0.448626+0.325962I$ $b=\ \ 0.0927846+0.0130873I$	$-0.24551-4.75126I$	0
$u=\ \ 1.057020+0.521499I$ $a=-0.243692-1.314180I$ $b=-0.757740-0.296570I$	$-0.26634+5.32691I$	0
$u=\ \ 1.057020-0.521499I$ $a=-0.243692+1.314180I$ $b=-0.757740+0.296570I$	$-0.26634-5.32691I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.774385+0.242007I$ $a=-0.937885+0.332567I$ $b=\ \ 0.443642-1.150540I$	$-1.62107-0.90334I$	0
$u=-0.774385-0.242007I$ $a=-0.937885-0.332567I$ $b=\ \ 0.443642+1.150540I$	$-1.62107+0.90334I$	0
$u=\ \ 1.154430+0.337643I$ $a=-0.182258+0.963816I$ $b=-0.612179+0.412519I$	$3.48053+7.86335I$	0
$u=\ \ 1.154430-0.337643I$ $a=-0.182258-0.963816I$ $b=-0.612179-0.412519I$	$3.48053-7.86335I$	0
$u=\ \ 0.726929+0.324876I$ $a=-0.263271-0.299473I$ $b=\ \ 0.175979+0.973124I$	$-1.41163-1.73255I$	0
$u=\ \ 0.726929-0.324876I$ $a=-0.263271+0.299473I$ $b=\ \ 0.175979-0.973124I$	$-1.41163+1.73255I$	0
$u=\ \ 0.785385+0.125564I$ $a=-3.66711+0.16395I$ $b=\ \ 1.64059+0.38662I$	$4.18115+6.46744I$	0
$u=\ \ 0.785385-0.125564I$ $a=-3.66711-0.16395I$ $b=\ \ 1.64059-0.38662I$	$4.18115-6.46744I$	0
$u=-0.369299+0.700251I$ $a=-0.157572+0.892871I$ $b=\ \ 1.047660-0.169183I$	$5.08933-5.93229I$	0
$u=-0.369299-0.700251I$ $a=-0.157572-0.892871I$ $b=\ \ 1.047660+0.169183I$	$5.08933+5.93229I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.093420+0.525497I$ $a=\ \ 0.26291+2.03387I$ $b=-0.977322+0.284930I$	$4.46992-10.86910I$	0
$u=-1.093420-0.525497I$ $a=\ \ 0.26291-2.03387I$ $b=-0.977322-0.284930I$	$4.46992+10.86910I$	0
$u=\ \ 1.148310+0.401673I$ $a=\ \ 2.57107-0.49046I$ $b=-1.368470-0.181234I$	$8.69744+9.16930I$	0
$u=\ \ 1.148310-0.401673I$ $a=\ \ 2.57107+0.49046I$ $b=-1.368470+0.181234I$	$8.69744-9.16930I$	0
$u=-0.432954+0.648653I$ $a=\ \ 0.373107-1.005890I$ $b=\ \ 0.984194-0.292578I$	$0.07141-3.72785I$	0
$u=-0.432954-0.648653I$ $a=\ \ 0.373107+1.005890I$ $b=\ \ 0.984194+0.292578I$	$0.07141+3.72785I$	0
$u=-1.160210+0.408959I$ $a=\ \ 2.36187+0.87124I$ $b=-1.220010+0.432666I$	$2.86398-7.89511I$	0
$u=-1.160210-0.408959I$ $a=\ \ 2.36187-0.87124I$ $b=-1.220010-0.432666I$	$2.86398+7.89511I$	0
$u=\ \ 1.155610+0.425076I$ $a=\ \ 2.19095-1.00324I$ $b=-1.225060-0.567501I$	$3.95878+10.87850I$	0
$u=\ \ 1.155610-0.425076I$ $a=\ \ 2.19095+1.00324I$ $b=-1.225060+0.567501I$	$3.95878-10.87850I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.510620+0.568691I$ $a=\ \ 0.754085+0.628865I$ $b=-0.028269+0.827369I$	$2.32835-2.09541I$	0
$u=-0.510620-0.568691I$ $a=\ \ 0.754085-0.628865I$ $b=-0.028269-0.827369I$	$2.32835+2.09541I$	0
$u=\ \ 0.462933+0.606757I$ $a=\ \ 1.62969-0.29323I$ $b=\ \ 0.915285-0.203760I$	$-2.02037-0.85680I$	0
$u=\ \ 0.462933-0.606757I$ $a=\ \ 1.62969+0.29323I$ $b=\ \ 0.915285+0.203760I$	$-2.02037+0.85680I$	0
$u=-1.168190+0.406675I$ $a=\ \ 0.058099-0.856266I$ $b=-0.781953-0.489895I$	$-0.04935-1.76185I$	0
$u=-1.168190-0.406675I$ $a=\ \ 0.058099+0.856266I$ $b=-0.781953+0.489895I$	$-0.04935+1.76185I$	0
$u=\ \ 0.758589+0.046364I$ $a=-6.43651+0.72336I$ $b=\ \ 0.933852-0.056164I$	$1.28344-6.23630I$	0
$u=\ \ 0.758589-0.046364I$ $a=-6.43651-0.72336I$ $b=\ \ 0.933852+0.056164I$	$1.28344+6.23630I$	0
$u=-1.163610+0.435310I$ $a=\ \ 0.149422+0.146164I$ $b=-0.212104+0.761549I$	$2.46618-0.66784I$	0
$u=-1.163610-0.435310I$ $a=\ \ 0.149422-0.146164I$ $b=-0.212104-0.761549I$	$2.46618+0.66784I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.178250+0.394308I$ $a=\ \ 2.18898+0.55295I$ $b=-1.46899+0.47141I$	$4.66947-10.32320I$	0
$u=-1.178250-0.394308I$ $a=\ \ 2.18898-0.55295I$ $b=-1.46899-0.47141I$	$4.66947+10.32320I$	0
$u=-1.172400+0.412890I$ $a=\ \ 2.52642+0.93741I$ $b=-1.127020+0.253372I$	$2.83838-6.86953I$	0
$u=-1.172400-0.412890I$ $a=\ \ 2.52642-0.93741I$ $b=-1.127020-0.253372I$	$2.83838+6.86953I$	0
$u=\ \ 1.144590+0.515377I$ $a=-1.67031+1.08084I$ $b=\ \ 1.272430+0.159876I$	$7.38774+4.06024I$	0
$u=\ \ 1.144590-0.515377I$ $a=-1.67031-1.08084I$ $b=\ \ 1.272430-0.159876I$	$7.38774-4.06024I$	0
$u=\ \ 1.235570+0.245822I$ $a=-0.1300980+0.0298962I$ $b=-0.619384+0.925932I$	$4.30533-5.68525I$	0
$u=\ \ 1.235570-0.245822I$ $a=-0.1300980-0.0298962I$ $b=-0.619384-0.925932I$	$4.30533+5.68525I$	0
$u=\ \ 1.215800+0.338826I$ $a=\ \ 1.52422-0.70147I$ $b=-1.86632+0.42438I$	$7.49302+7.56242I$	0
$u=\ \ 1.215800-0.338826I$ $a=\ \ 1.52422+0.70147I$ $b=-1.86632-0.42438I$	$7.49302-7.56242I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.737636$ $a=-7.07184$ $b=\ \ 0.931905$	-2.84479	0
$u=-0.676019+0.288627I$ $a=\ \ 0.440573+0.006647I$ $b=-0.741023+0.217066I$	$1.43722-0.66748I$	0
$u=-0.676019-0.288627I$ $a=\ \ 0.440573-0.006647I$ $b=-0.741023-0.217066I$	$1.43722+0.66748I$	0
$u=\ \ 1.197210+0.409750I$ $a=\ \ 1.99292-0.63256I$ $b=-1.42122-0.57584I$	$3.68508+8.18402I$	0
$u=\ \ 1.197210-0.409750I$ $a=\ \ 1.99292+0.63256I$ $b=-1.42122+0.57584I$	$3.68508-8.18402I$	0
$u=-0.393752+0.617992I$ $a=\ \ 1.63097+1.01161I$ $b=\ \ 1.071630+0.127140I$	$2.39503+6.32987I$	0
$u=-0.393752-0.617992I$ $a=\ \ 1.63097-1.01161I$ $b=\ \ 1.071630-0.127140I$	$2.39503-6.32987I$	0
$u=\ \ 0.342351+1.225570I$ $a=\ \ 0.457285+0.222768I$ $b=-1.319170+0.501865I$	$3.1050-14.5175I$	0
$u=\ \ 0.342351-1.225570I$ $a=\ \ 0.457285-0.222768I$ $b=-1.319170-0.501865I$	$3.1050+14.5175I$	0
$u=-1.191490+0.456262I$ $a=-1.92949-0.97155I$ $b=\ \ 1.42104-0.27469I$	$7.59045-4.44666I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.191490-0.456262I$ $a=-1.92949+0.97155I$ $b=\ \ 1.42104+0.27469I$	$7.59045+4.44666I$	0
$u=-1.181640+0.481453I$ $a=\ \ 1.71341+1.02674I$ $b=-1.32595+0.73205I$	$8.9536-11.1741I$	0
$u=-1.181640-0.481453I$ $a=\ \ 1.71341-1.02674I$ $b=-1.32595-0.73205I$	$8.9536+11.1741I$	0
$u=-0.039731+0.713005I$ $a=\ \ 0.453123-0.057961I$ $b=-1.201940-0.147605I$	$4.26793+0.11022I$	0
$u=-0.039731-0.713005I$ $a=\ \ 0.453123+0.057961I$ $b=-1.201940+0.147605I$	$4.26793-0.11022I$	0
$u=\ \ 0.370607+0.602926I$ $a=\ \ 0.0770151+0.0774324I$ $b=\ \ 1.082870+0.431455I$	$0.95207+6.99078I$	0
$u=\ \ 0.370607-0.602926I$ $a=\ \ 0.0770151-0.0774324I$ $b=\ \ 1.082870-0.431455I$	$0.95207-6.99078I$	0
$u=\ \ 1.209280+0.456420I$ $a=\ \ 1.31982-0.66160I$ $b=-1.44690+0.37540I$	$9.15948-2.52691I$	0
$u=\ \ 1.209280-0.456420I$ $a=\ \ 1.31982+0.66160I$ $b=-1.44690-0.37540I$	$9.15948+2.52691I$	0
$u=-1.096100+0.701852I$ $a=\ \ 0.726296+0.005863I$ $b=\ \ 0.107506+1.232940I$	$3.61445-3.09982I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.096100-0.701852I$ $a=\ \ 0.726296-0.005863I$ $b=\ \ 0.107506-1.232940I$	$3.61445+3.09982I$	0
$u=\ \ 1.228220+0.447011I$ $a=\ \ 2.07979-1.04519I$ $b=-1.041130-0.151390I$	$2.35333+2.06366I$	0
$u=\ \ 1.228220-0.447011I$ $a=\ \ 2.07979+1.04519I$ $b=-1.041130+0.151390I$	$2.35333-2.06366I$	0
$u=\ \ 1.228260+0.448330I$ $a=\ \ 1.72192-0.72860I$ $b=-1.43796-0.67122I$	$4.29641+7.96390I$	0
$u=\ \ 1.228260-0.448330I$ $a=\ \ 1.72192+0.72860I$ $b=-1.43796+0.67122I$	$4.29641-7.96390I$	0
$u=-1.190460+0.544327I$ $a=\ \ 1.36629+1.46671I$ $b=-1.105800+0.103015I$	$7.64089+0.90582I$	0
$u=-1.190460-0.544327I$ $a=\ \ 1.36629-1.46671I$ $b=-1.105800-0.103015I$	$7.64089-0.90582I$	0
$u=-1.128750+0.666063I$ $a=-0.377676+0.046887I$ $b=\ \ 0.326372+0.388406I$	$3.00457-8.90992I$	0
$u=-1.128750-0.666063I$ $a=-0.377676-0.046887I$ $b=\ \ 0.326372-0.388406I$	$3.00457+8.90992I$	0
$u=\ \ 1.113240+0.734851I$ $a=\ \ 0.679724-0.765383I$ $b=-1.042920+0.060263I$	$2.89140-1.80117I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.113240 - 0.734851I$ $a = 0.679724 + 0.765383I$ $b = -1.042920 - 0.060263I$	$2.89140 + 1.80117I$	0
$u = 0.512109 + 0.423982I$ $a = 0.542562 + 0.299811I$ $b = 0.346196 + 0.406438I$	$-1.39633 - 0.41385I$	0
$u = 0.512109 - 0.423982I$ $a = 0.542562 - 0.299811I$ $b = 0.346196 - 0.406438I$	$-1.39633 + 0.41385I$	0
$u = -0.659068 + 0.078407I$ $a = -0.97221 - 1.33888I$ $b = 0.629393 - 0.741373I$	$-0.59333 + 2.40562I$	0
$u = -0.659068 - 0.078407I$ $a = -0.97221 + 1.33888I$ $b = 0.629393 + 0.741373I$	$-0.59333 - 2.40562I$	0
$u = -0.062773 + 0.653979I$ $a = 0.407628 + 0.952065I$ $b = 1.223260 + 0.520635I$	$5.83586 + 6.77607I$	0
$u = -0.062773 - 0.653979I$ $a = 0.407628 - 0.952065I$ $b = 1.223260 - 0.520635I$	$5.83586 - 6.77607I$	0
$u = -1.284550 + 0.399473I$ $a = 1.44996 + 0.56100I$ $b = -1.62880 - 0.08641I$	$4.41517 - 1.74291I$	0
$u = -1.284550 - 0.399473I$ $a = 1.44996 - 0.56100I$ $b = -1.62880 + 0.08641I$	$4.41517 + 1.74291I$	0
$u = -1.209400 + 0.593142I$ $a = 0.571021 - 0.205612I$ $b = 0.027888 + 1.267670I$	$1.8785 - 14.8053I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.209400-0.593142I$ $a=\ 0.571021+0.205612I$ $b=\ 0.027888-1.267670I$	$1.8785+14.8053I$	0
$u=-0.313461+0.569248I$ $a=\ 0.055267-0.533115I$ $b=\ 1.064710-0.474818I$	$-0.04406-4.58724I$	0
$u=-0.313461-0.569248I$ $a=\ 0.055267+0.533115I$ $b=\ 1.064710+0.474818I$	$-0.04406+4.58724I$	0
$u=-0.449789+1.282540I$ $a=\ 0.460038-0.208604I$ $b=-1.32977-0.49680I$	$-0.54301+8.13089I$	0
$u=-0.449789-1.282540I$ $a=\ 0.460038+0.208604I$ $b=-1.32977+0.49680I$	$-0.54301-8.13089I$	0
$u=-0.552671+0.322734I$ $a=-1.240240-0.257184I$ $b=\ 1.019840-0.705479I$	$1.05335-7.56944I$	0
$u=-0.552671-0.322734I$ $a=-1.240240+0.257184I$ $b=\ 1.019840+0.705479I$	$1.05335+7.56944I$	0
$u=-0.233180+1.347250I$ $a=\ 0.33240-1.39622I$ $b=\ 0.736622-0.839707I$	$-4.12154-3.40129I$	0
$u=-0.233180-1.347250I$ $a=\ 0.33240+1.39622I$ $b=\ 0.736622+0.839707I$	$-4.12154+3.40129I$	0
$u=\ 1.222700+0.621420I$ $a=\ 0.547820+0.128742I$ $b=\ 0.021068-1.259930I$	$-1.95675+8.82232I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.222700 - 0.621420I$ $a = 0.547820 - 0.128742I$ $b = 0.021068 + 1.259930I$	$-1.95675 - 8.82232I$	0
$u = 1.305040 + 0.467324I$ $a = -1.72002 + 0.71298I$ $b = 1.311810 + 0.293596I$	$7.15310 + 4.18475I$	0
$u = 1.305040 - 0.467324I$ $a = -1.72002 - 0.71298I$ $b = 1.311810 - 0.293596I$	$7.15310 - 4.18475I$	0
$u = -1.391500 + 0.090581I$ $a = -1.84641 - 0.26988I$ $b = 1.365490 + 0.250547I$	$12.73430 - 0.33748I$	0
$u = -1.391500 - 0.090581I$ $a = -1.84641 + 0.26988I$ $b = 1.365490 - 0.250547I$	$12.73430 + 0.33748I$	0
$u = 1.20352 + 0.79129I$ $a = -1.46918 + 1.19367I$ $b = 1.35988 + 0.57393I$	$7.69710 + 9.31848I$	0
$u = 1.20352 - 0.79129I$ $a = -1.46918 - 1.19367I$ $b = 1.35988 - 0.57393I$	$7.69710 - 9.31848I$	0
$u = -1.34673 + 0.57417I$ $a = 1.31694 + 0.61600I$ $b = -1.67646 + 1.10411I$	$5.53567 - 2.09330I$	0
$u = -1.34673 - 0.57417I$ $a = 1.31694 - 0.61600I$ $b = -1.67646 - 1.10411I$	$5.53567 + 2.09330I$	0
$u = 1.29737 + 0.69602I$ $a = -1.59511 + 0.98324I$ $b = 1.39424 + 0.59911I$	$6.1780 + 21.2684I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.29737 - 0.69602I$ $a = -1.59511 - 0.98324I$ $b = 1.39424 - 0.59911I$	$6.1780 - 21.2684I$	0
$u = 1.44148 + 0.36244I$ $a = 1.69539 - 0.32909I$ $b = -0.952128 - 0.046267I$	$1.51901 + 1.31211I$	0
$u = 1.44148 - 0.36244I$ $a = 1.69539 + 0.32909I$ $b = -0.952128 + 0.046267I$	$1.51901 - 1.31211I$	0
$u = -1.30033 + 0.73150I$ $a = -1.53044 - 0.99996I$ $b = 1.38345 - 0.59236I$	$2.3154 - 15.2107I$	0
$u = -1.30033 - 0.73150I$ $a = -1.53044 + 0.99996I$ $b = 1.38345 + 0.59236I$	$2.3154 + 15.2107I$	0
$u = 1.49171 + 0.07947I$ $a = -1.72674 + 0.03755I$ $b = 1.367180 + 0.274051I$	$7.93556 + 3.58223I$	0
$u = 1.49171 - 0.07947I$ $a = -1.72674 - 0.03755I$ $b = 1.367180 - 0.274051I$	$7.93556 - 3.58223I$	0
$u = -1.52066 + 0.07524I$ $a = 1.49492 + 0.16602I$ $b = -0.975463 + 0.098321I$	$2.02827 - 1.74408I$	0
$u = -1.52066 - 0.07524I$ $a = 1.49492 - 0.16602I$ $b = -0.975463 - 0.098321I$	$2.02827 + 1.74408I$	0
$u = -1.28579 + 0.82078I$ $a = -1.24424 - 0.74116I$ $b = 1.119660 - 0.238814I$	$2.53610 - 6.73249I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.28579-0.82078I$ $a=-1.24424+0.74116I$ $b=1.119660+0.238814I$	$2.53610+6.73249I$	0
$u=0.465212+0.080124I$ $a=0.239465+1.309490I$ $b=0.547442+0.630341I$	$-1.64638-0.11395I$	0
$u=0.465212-0.080124I$ $a=0.239465-1.309490I$ $b=0.547442-0.630341I$	$-1.64638+0.11395I$	0
$u=0.467809+0.014861I$ $a=-2.64609+2.28037I$ $b=1.225890+0.388566I$	$5.80101+6.33996I$	$0.-7.06124I$
$u=0.467809-0.014861I$ $a=-2.64609-2.28037I$ $b=1.225890-0.388566I$	$5.80101-6.33996I$	$0.+7.06124I$
$u=0.286355+0.285771I$ $a=0.560194+0.776428I$ $b=0.529473+0.641270I$	$-1.63494-0.09657I$	$-6.80149-0.80764I$
$u=0.286355-0.285771I$ $a=0.560194-0.776428I$ $b=0.529473-0.641270I$	$-1.63494+0.09657I$	$-6.80149+0.80764I$
$u=0.401327+0.049138I$ $a=1.29719-1.27421I$ $b=0.480512-0.408479I$	$-1.344880+0.264157I$	$-8.50256+0.I$
$u=0.401327-0.049138I$ $a=1.29719+1.27421I$ $b=0.480512+0.408479I$	$-1.344880-0.264157I$	$-8.50256+0.I$
$u=1.41356+0.77661I$ $a=-1.32553+0.62707I$ $b=1.088250+0.290153I$	$5.23114+11.81370I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.41356 - 0.77661I$ $a = -1.32553 - 0.62707I$ $b = 1.088250 - 0.290153I$	$5.23114 - 11.81370I$	0
$u = -0.378581 + 0.057477I$ $a = 0.31956 + 3.23745I$ $b = 0.911086 + 0.412950I$	$-0.19556 + 3.94521I$	$-4.70911 - 6.53026I$
$u = -0.378581 - 0.057477I$ $a = 0.31956 - 3.23745I$ $b = 0.911086 - 0.412950I$	$-0.19556 - 3.94521I$	$-4.70911 + 6.53026I$
$u = -1.64134 + 0.05277I$ $a = -1.50976 - 0.10171I$ $b = 1.368300 + 0.255528I$	$10.61310 + 9.19329I$	0
$u = -1.64134 - 0.05277I$ $a = -1.50976 + 0.10171I$ $b = 1.368300 - 0.255528I$	$10.61310 - 9.19329I$	0
$u = 0.022460 + 0.320839I$ $a = 0.745021 - 0.773789I$ $b = 0.422997 - 0.761509I$	$-0.90772 + 2.22862I$	$-2.47026 - 2.53832I$
$u = 0.022460 - 0.320839I$ $a = 0.745021 + 0.773789I$ $b = 0.422997 + 0.761509I$	$-0.90772 - 2.22862I$	$-2.47026 + 2.53832I$
$u = 0.136571 + 0.243739I$ $a = 0.09936 - 1.72539I$ $b = 1.082450 - 0.598037I$	$1.02813 - 7.36128I$	$-6.02142 + 7.21859I$
$u = 0.136571 - 0.243739I$ $a = 0.09936 + 1.72539I$ $b = 1.082450 + 0.598037I$	$1.02813 + 7.36128I$	$-6.02142 - 7.21859I$
$u = -0.242147 + 0.065589I$ $a = -0.20140 + 2.12139I$ $b = 1.035070 + 0.547402I$	$-0.12375 + 4.74338I$	$-1.54330 + 1.67365I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.242147-0.065589I$ $a=-0.20140-2.12139I$ $b=\ \ 1.035070-0.547402I$	$-0.12375-4.74338I$	$-1.54330-1.67365I$
$u=-0.54931+1.94748I$ $a=\ \ 0.810600+0.140370I$ $b=-1.001170+0.076704I$	$1.69171+2.23002I$	0
$u=-0.54931-1.94748I$ $a=\ \ 0.810600-0.140370I$ $b=-1.001170-0.076704I$	$1.69171-2.23002I$	0

II. $I_2^u =$
$\langle 3.85\times10^{38}u^{44}-8.38\times10^{37}u^{43}+\cdots+2.18\times10^{35}b-1.13\times10^{38},\ 5.32\times10^{38}u^{44}-2.06\times10^{38}u^{43}+\cdots+2.18\times10^{35}a-1.04\times10^{38},\ 4u^{45}-2u^{44}+\cdots-3u+1\rangle$

(i) Arc colorings

$$a_8 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_1 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_5 = \begin{pmatrix}-2441.64u^{44}+943.959u^{43}+\cdots+543.100u+477.153\\-1767.82u^{44}+384.805u^{43}+\cdots-178.178u+520.431\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-u\\u\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}1665.63u^{44}+382.251u^{43}+\cdots+1450.25u-995.347\\-1155.32u^{44}-1416.60u^{43}+\cdots-3020.26u+1360.20\end{pmatrix}$$
$$a_4 = \begin{pmatrix}-3665.27u^{44}+3598.82u^{43}+\cdots+4863.41u-915.493\\4123.01u^{44}-2094.90u^{43}+\cdots-2172.14u-44.1903\end{pmatrix}$$
$$a_2 = \begin{pmatrix}-4021.21u^{44}+1450.85u^{43}+\cdots+1206.28u+286.883\\5541.40u^{44}-175.743u^{43}+\cdots+1859.35u-1896.32\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}2454.37u^{44}+1621.55u^{43}+\cdots+3975.62u-2051.78\\-1319.10u^{44}-1938.71u^{43}+\cdots-4048.33u+1768.62\end{pmatrix}$$
$$a_3 = \begin{pmatrix}-4222.33u^{44}+875.365u^{43}+\cdots+59.9225u+795.684\\5742.52u^{44}+399.743u^{43}+\cdots+3005.71u-2405.12\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-2024.13u^{44}+4096.76u^{43}+\cdots+6044.93u-1481.84\\-3617.61u^{44}-1390.93u^{43}+\cdots-3657.20u+1971.96\end{pmatrix}$$
$$a_6 = \begin{pmatrix}1196.35u^{44}-7302.57u^{43}+\cdots-12310.8u+4071.84\\2107.71u^{44}+4599.13u^{43}+\cdots+9004.27u-3727.44\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 2774.23u^{44}-295.604u^{43}+\cdots-477.821u+128.358$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$16(16u^{45} - 364u^{44} + \cdots - 6u + 1)$
c_2	$4(4u^{45} + 2u^{44} + \cdots + 2u + 1)$
c_3	$u^{45} - 2u^{44} + \cdots - 66u + 52$
c_4	$u^{45} + 4u^{44} + \cdots - 2u - 1$
c_5	$u^{45} - 3u^{44} + \cdots - 6u - 4$
c_6	$u^{45} - 5u^{44} + \cdots + 5u - 1$
c_7	$4(4u^{45} + 2u^{44} + \cdots - 3u - 1)$
c_8	$4(4u^{45} - 6u^{44} + \cdots + 7u - 1)$
c_9	$u^{45} + 5u^{44} + \cdots + 5u + 1$
c_{10}	$u^{45} + 11u^{44} + \cdots + 4u + 16$
c_{11}	$u^{45} - 4u^{44} + \cdots - 2u + 1$
c_{12}	$4(4u^{45} - 2u^{44} + \cdots - 3u + 1)$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$256(256y^{45}+1936y^{44}+\cdots-12y-1)$
c_2	$16(16y^{45}-60y^{44}+\cdots-72y-1)$
c_3	$y^{45}-28y^{44}+\cdots+11116y-2704$
c_4, c_{11}	$y^{45}-30y^{44}+\cdots+10y-1$
c_5	$y^{45}-13y^{44}+\cdots-308y-16$
c_6, c_9	$y^{45}+25y^{44}+\cdots-17y-1$
c_7, c_{12}	$16(16y^{45}-364y^{44}+\cdots+39y-1)$
c_8	$16(16y^{45}-204y^{44}+\cdots+29y-1)$
c_{10}	$y^{45}+y^{44}+\cdots-4560y-256$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.711310 + 0.688946I$ $a = -1.149990 + 0.103612I$ $b = -0.669282 + 0.848611I$	$3.05920 + 3.80335I$	$7.30523 - 7.20852I$
$u = 0.711310 - 0.688946I$ $a = -1.149990 - 0.103612I$ $b = -0.669282 - 0.848611I$	$3.05920 - 3.80335I$	$7.30523 + 7.20852I$
$u = -0.950366 + 0.413490I$ $a = -0.442771 + 0.862539I$ $b = -0.144607 - 0.568609I$	$0.26794 - 4.56165I$	$0. + 8.38189I$
$u = -0.950366 - 0.413490I$ $a = -0.442771 - 0.862539I$ $b = -0.144607 + 0.568609I$	$0.26794 + 4.56165I$	$0. - 8.38189I$
$u = 0.973348 + 0.378667I$ $a = 0.942366 - 0.400940I$ $b = -0.257885 - 0.310072I$	$0.262542 + 1.189250I$	0
$u = 0.973348 - 0.378667I$ $a = 0.942366 + 0.400940I$ $b = -0.257885 + 0.310072I$	$0.262542 - 1.189250I$	0
$u = -0.232608 + 0.926219I$ $a = -0.481978 - 0.245653I$ $b = 1.099040 - 0.400151I$	$-0.40412 - 5.73107I$	$-3.37144 + 8.41233I$
$u = -0.232608 - 0.926219I$ $a = -0.481978 + 0.245653I$ $b = 1.099040 + 0.400151I$	$-0.40412 + 5.73107I$	$-3.37144 - 8.41233I$
$u = -0.914072 + 0.525509I$ $a = 0.115174 - 0.499245I$ $b = 0.799437 - 0.310200I$	$0.33962 - 5.61210I$	$0. + 10.94461I$
$u = -0.914072 - 0.525509I$ $a = 0.115174 + 0.499245I$ $b = 0.799437 + 0.310200I$	$0.33962 + 5.61210I$	$0. - 10.94461I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 0.304038 + 0.855463I$ $a = -0.858790 - 0.060024I$ $b = \ 0.541732 - 0.318053I$	$-2.50039 + 2.48411I$	$-9.20085 - 2.31922I$
$u = \ 0.304038 - 0.855463I$ $a = -0.858790 + 0.060024I$ $b = \ 0.541732 + 0.318053I$	$-2.50039 - 2.48411I$	$-9.20085 + 2.31922I$
$u = \ 1.053930 + 0.344581I$ $a = \ 0.506964 - 0.384322I$ $b = \ 0.393166 - 0.407855I$	$0.417098 + 0.993421I$	0
$u = \ 1.053930 - 0.344581I$ $a = \ 0.506964 + 0.384322I$ $b = \ 0.393166 + 0.407855I$	$0.417098 - 0.993421I$	0
$u = -1.000500 + 0.527976I$ $a = -0.627728 + 0.516777I$ $b = \ 1.130750 + 0.523330I$	$6.02418 + 4.22548I$	0
$u = -1.000500 - 0.527976I$ $a = -0.627728 - 0.516777I$ $b = \ 1.130750 - 0.523330I$	$6.02418 - 4.22548I$	0
$u = -1.038560 + 0.503593I$ $a = \ 2.27263 + 1.20143I$ $b = -1.34547 + 0.47013I$	$6.24978 - 8.66859I$	0
$u = -1.038560 - 0.503593I$ $a = \ 2.27263 - 1.20143I$ $b = -1.34547 - 0.47013I$	$6.24978 + 8.66859I$	0
$u = -0.789510 + 0.266781I$ $a = -0.138618 - 0.606101I$ $b = \ 0.432205 - 0.804512I$	$-0.47501 + 1.58528I$	$0.77882 + 1.68530I$
$u = -0.789510 - 0.266781I$ $a = -0.138618 + 0.606101I$ $b = \ 0.432205 + 0.804512I$	$-0.47501 - 1.58528I$	$0.77882 - 1.68530I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.739295 + 0.266078I$ $a = 2.01161 - 0.43011I$ $b = -0.989895 - 0.690617I$	$0.05671 + 1.50309I$	$-5.20097 - 4.66487I$
$u = 0.739295 - 0.266078I$ $a = 2.01161 + 0.43011I$ $b = -0.989895 + 0.690617I$	$0.05671 - 1.50309I$	$-5.20097 + 4.66487I$
$u = 0.779302 + 0.059785I$ $a = -0.117394 + 0.208190I$ $b = 0.475609 + 0.821510I$	$-0.948786 + 0.169052I$	$1.60678 - 2.11095I$
$u = 0.779302 - 0.059785I$ $a = -0.117394 - 0.208190I$ $b = 0.475609 - 0.821510I$	$-0.948786 - 0.169052I$	$1.60678 + 2.11095I$
$u = -0.695270 + 0.300304I$ $a = -0.205785 - 0.068107I$ $b = 0.866827 - 0.582379I$	$0.11500 - 5.35155I$	$3.15219 + 9.36441I$
$u = -0.695270 - 0.300304I$ $a = -0.205785 + 0.068107I$ $b = 0.866827 + 0.582379I$	$0.11500 + 5.35155I$	$3.15219 - 9.36441I$
$u = 1.202150 + 0.360708I$ $a = 2.16352 - 0.57837I$ $b = -1.35966 - 0.51837I$	$4.38611 + 9.29994I$	0
$u = 1.202150 - 0.360708I$ $a = 2.16352 + 0.57837I$ $b = -1.35966 + 0.51837I$	$4.38611 - 9.29994I$	0
$u = -1.215640 + 0.344864I$ $a = -1.72027 - 0.39613I$ $b = 1.64496 + 0.05319I$	$6.86778 - 7.61456I$	0
$u = -1.215640 - 0.344864I$ $a = -1.72027 + 0.39613I$ $b = 1.64496 - 0.05319I$	$6.86778 + 7.61456I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.147970 + 0.603357I$ $a = -0.64148 + 1.36529I$ $b = 0.915632 + 0.246511I$	$4.54406 + 10.18430I$	0
$u = 1.147970 - 0.603357I$ $a = -0.64148 - 1.36529I$ $b = 0.915632 - 0.246511I$	$4.54406 - 10.18430I$	0
$u = -0.676670 + 0.001310I$ $a = 3.95357 + 0.58207I$ $b = -1.48675 + 0.29075I$	$4.06027 - 6.02530I$	$0.330629 - 0.846429I$
$u = -0.676670 - 0.001310I$ $a = 3.95357 - 0.58207I$ $b = -1.48675 - 0.29075I$	$4.06027 + 6.02530I$	$0.330629 + 0.846429I$
$u = 0.196097 + 1.352380I$ $a = -0.371046 - 1.349930I$ $b = -0.708641 - 0.856981I$	$-4.10732 + 3.44949I$	0
$u = 0.196097 - 1.352380I$ $a = -0.371046 + 1.349930I$ $b = -0.708641 + 0.856981I$	$-4.10732 - 3.44949I$	0
$u = 0.603323 + 0.040355I$ $a = -0.470910 + 0.027826I$ $b = 1.076530 - 0.676865I$	$1.51733 - 7.23132I$	$9.77735 + 2.80982I$
$u = 0.603323 - 0.040355I$ $a = -0.470910 - 0.027826I$ $b = 1.076530 + 0.676865I$	$1.51733 + 7.23132I$	$9.77735 - 2.80982I$
$u = 1.32646 + 0.54089I$ $a = -1.35220 + 0.66417I$ $b = 1.64627 + 0.91105I$	$5.46452 + 2.01994I$	0
$u = 1.32646 - 0.54089I$ $a = -1.35220 - 0.66417I$ $b = 1.64627 - 0.91105I$	$5.46452 - 2.01994I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.471064 + 0.081382I$ $a = -6.55488 + 1.59636I$ $b = -0.759223 + 0.101306I$	$0.75321 - 6.26996I$	$-9.87453 + 7.73257I$
$u = \quad 0.471064 - 0.081382I$ $a = -6.55488 - 1.59636I$ $b = -0.759223 - 0.101306I$	$0.75321 + 6.26996I$	$-9.87453 - 7.73257I$
$u = -0.456992$ $a = -7.97352$ $b = -0.778866$	-3.31828	-18.3540
$u = -1.51659 + 0.78555I$ $a = \quad 1.154770 + 0.303734I$ $b = -0.911301 - 0.046320I$	$1.89798 + 2.08554I$	0
$u = -1.51659 - 0.78555I$ $a = \quad 1.154770 - 0.303734I$ $b = -0.911301 + 0.046320I$	$1.89798 - 2.08554I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$256(16u^{45}-364u^{44}+\cdots-6u+1)$ $\cdot(16u^{183}+252u^{182}+\cdots+449u-17)$
c_2	$16(4u^{45}+2u^{44}+\cdots+2u+1)$ $\cdot(4u^{183}-14u^{182}+\cdots+864065u-160229)$
c_3	$(u^{45}-2u^{44}+\cdots-66u+52)(u^{183}-3u^{182}+\cdots+285506u-6964)$
c_4	$(u^{45}+4u^{44}+\cdots-2u-1)(u^{183}+5u^{182}+\cdots+1386431u+62039)$
c_5	$(u^{45}-3u^{44}+\cdots-6u-4)$ $\cdot(u^{183}-4u^{182}+\cdots-17118874u-3362836)$
c_6	$(u^{45}-5u^{44}+\cdots+5u-1)(u^{183}-8u^{182}+\cdots-9204u+773)$
c_7	$16(4u^{45}+2u^{44}+\cdots-3u-1)(4u^{183}-2u^{182}+\cdots-2u-1)$
c_8	$16(4u^{45}-6u^{44}+\cdots+7u-1)$ $\cdot(4u^{183}-2u^{182}+\cdots+4507202u-289523)$
c_9	$(u^{45}+5u^{44}+\cdots+5u+1)(u^{183}-8u^{182}+\cdots-9204u+773)$
c_{10}	$(u^{45}+11u^{44}+\cdots+4u+16)$ $\cdot(u^{183}+6u^{182}+\cdots+5277708u+199568)$
c_{11}	$(u^{45}-4u^{44}+\cdots-2u+1)(u^{183}+5u^{182}+\cdots+1386431u+62039)$
c_{12}	$16(4u^{45}-2u^{44}+\cdots-3u+1)(4u^{183}-2u^{182}+\cdots-2u-1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$65536(256y^{45}+1936y^{44}+\cdots-12y-1)$ $\cdot(256y^{183}-2416y^{182}+\cdots-5697y-289)$
c_2	$256(16y^{45}-60y^{44}+\cdots-72y-1)$ $\cdot(16y^{183}+404y^{182}+\cdots+751073906455y-25673332441)$
c_3	$(y^{45}-28y^{44}+\cdots+11116y-2704)$ $\cdot(y^{183}-55y^{182}+\cdots+3956764060y-48497296)$
c_4, c_{11}	$(y^{45}-30y^{44}+\cdots+10y-1)$ $\cdot(y^{183}-121y^{182}+\cdots+995844174085y-3848837521)$
c_5	$(y^{45}-13y^{44}+\cdots-308y-16)$ $\cdot(y^{183}-20y^{182}+\cdots+1169699756063260y-11308665962896)$
c_6, c_9	$(y^{45}+25y^{44}+\cdots-17y-1)$ $\cdot(y^{183}+110y^{182}+\cdots-36021254y-597529)$
c_7, c_{12}	$256(16y^{45}-364y^{44}+\cdots+39y-1)$ $\cdot(16y^{183}-1564y^{182}+\cdots+82y-1)$
c_8	$256(16y^{45}-204y^{44}+\cdots+29y-1)$ $\cdot(16y^{183}+196y^{182}+\cdots+3044733745720y-83823567529)$
c_{10}	$(y^{45}+y^{44}+\cdots-4560y-256)$ $\cdot(y^{183}-18y^{182}+\cdots+2408586039216y-39827386624)$