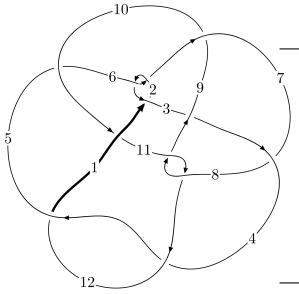
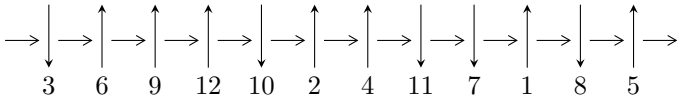
$12a_{0418}$ $(K12a_{0418})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 1.94917 \times 10^{418} u^{163} + 1.81536 \times 10^{418} u^{162} + \cdots + 9.84278 \times 10^{417} b + 3.97689 \times 10^{418}, \\ & 6.96715 \times 10^{418} u^{163} + 2.22660 \times 10^{419} u^{162} + \cdots + 9.84278 \times 10^{417} a - 9.30364 \times 10^{417}, \\ & u^{164} + 3u^{163} + \cdots + 12u - 1 \rangle \\ I_2^u = \langle & -6087254789723 u^{40} + 551946361063 u^{39} + \cdots + 40033663922926 b - 35131970365899, \\ & - 25612286566117 u^{40} - 31874660592809 u^{39} + \cdots + 4003363922926 a - 38454939383807, \\ & u^{41} + 2u^{40} + \cdots + 8u + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 205 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. $\boldsymbol{I_1^u = \langle 1.95 \times 10^{418} u^{163} + 1.82 \times 10^{418} u^{162} + \cdots + 9.84 \times 10^{417} b + 3.98 \times 10^{418},\ 6.97 \times 10^{418} u^{163} + 2.23 \times 10^{419} u^{162} + \cdots + 9.84 \times 10^{417} a - 9.30 \times 10^{417},\ u^{164} + 3u^{163} + \cdots + 12u - 1 \rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

$$a_1 = \begin{pmatrix} u^2 + 1 \\ -u^4 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -7.07843u^{163} - 22.6216u^{162} + \cdots - 81.9968u + 0.945225 \\ -1.98031u^{163} - 1.84436u^{162} + \cdots + 52.9432u - 4.04041 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -13.5263u^{163} - 40.4393u^{162} + \cdots - 121.786u + 4.44380 \\ -6.32039u^{163} - 15.8195u^{162} + \cdots - 12.8020u + 1.46178 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 19.9472u^{163} + 65.1439u^{162} + \cdots + 82.9225u + 2.33750 \\ 9.51618u^{163} + 39.6278u^{162} + \cdots + 207.433u - 15.8542 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -14.6689u^{163} - 43.8271u^{162} + \cdots - 142.694u + 6.42814 \\ -9.57082u^{163} - 23.0498u^{162} + \cdots - 7.75367u + 1.44251 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 16.9894u^{163} + 45.6939u^{162} + \cdots + 208.713u - 20.8237 \\ 8.02649u^{163} + 26.6253u^{162} + \cdots + 100.474u - 9.14182 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -15.1801u^{163} - 46.9462u^{162} + \cdots - 317.756u + 25.5664 \\ -9.42833u^{163} - 32.2679u^{162} + \cdots - 155.021u + 13.1745 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 15.3039u^{163} + 26.9168u^{162} + \cdots - 308.619u + 35.5341 \\ 11.1371u^{163} + 17.7015u^{162} + \cdots - 102.845u + 8.62088 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -1.27418u^{163} + 4.99888u^{162} + \cdots + 127.051u - 1.23676$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{164} + 73u^{163} + \cdots + 38u + 1$
c_2, c_6	$u^{164} - 3u^{163} + \cdots - 12u - 1$
c_3	$u^{164} + u^{163} + \cdots - 6629u + 661$
c_4, c_{12}	$u^{164} - 70u^{162} + \cdots + 183149u - 105263$
c_5	$u^{164} + 2u^{163} + \cdots + 7727742u - 383531$
c_7	$u^{164} - 3u^{163} + \cdots - 3133307254u + 688167281$
c_8, c_{11}	$u^{164} + 10u^{163} + \cdots + 815546u - 215404$
c_9	$u^{164} - 16u^{163} + \cdots + 4721792u - 344128$
c_{10}	$u^{164} + 17u^{163} + \cdots + 79677738u + 6137707$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{164} + 45y^{163} + \cdots - 5694y + 1$
c_2, c_6	$y^{164} + 73y^{163} + \cdots + 38y + 1$
c_3	$y^{164} + 3y^{163} + \cdots + 288317263y + 436921$
c_4, c_{12}	$y^{164} - 140y^{163} + \cdots + 455834236047y + 11080299169$
c_5	$y^{164} + 36y^{163} + \cdots - 17079481340522y + 147096027961$
c_7	$y^{164} - 65y^{163} + \cdots - 2.11 \times 10^{19}y + 4.74 \times 10^{17}$
c_8, c_{11}	$y^{164} + 108y^{163} + \cdots - 1951599728220y + 46398883216$
c_9	$y^{164} + 22y^{163} + \cdots - 2240828266496y + 118424080384$
c_{10}	$y^{164} - 43y^{163} + \cdots + 595530200008586y + 37671447217849$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.299392 + 0.960310I$ $a = 0.60880 + 1.60945I$ $b = -0.27189 + 2.44228I$	$3.17547 - 4.68771I$	0
$u = 0.299392 - 0.960310I$ $a = 0.60880 - 1.60945I$ $b = -0.27189 - 2.44228I$	$3.17547 + 4.68771I$	0
$u = 0.879399 + 0.502158I$ $a = 0.927321 + 0.740852I$ $b = 0.052034 + 0.404033I$	$3.92172 - 3.03974I$	0
$u = 0.879399 - 0.502158I$ $a = 0.927321 - 0.740852I$ $b = 0.052034 - 0.404033I$	$3.92172 + 3.03974I$	0
$u = 0.768904 + 0.661034I$ $a = -1.53865 - 0.65651I$ $b = -0.750438 - 0.087776I$	$10.44220 - 4.48135I$	0
$u = 0.768904 - 0.661034I$ $a = -1.53865 + 0.65651I$ $b = -0.750438 + 0.087776I$	$10.44220 + 4.48135I$	0
$u = -0.351296 + 0.951234I$ $a = 0.917235 + 0.672606I$ $b = 0.21016 + 2.41929I$	$3.93571 + 4.23402I$	0
$u = -0.351296 - 0.951234I$ $a = 0.917235 - 0.672606I$ $b = 0.21016 - 2.41929I$	$3.93571 - 4.23402I$	0
$u = 0.777796 + 0.590959I$ $a = 0.579012 + 1.072520I$ $b = -0.0728974 + 0.0331661I$	$6.35048 + 4.60400I$	0
$u = 0.777796 - 0.590959I$ $a = 0.579012 - 1.072520I$ $b = -0.0728974 - 0.0331661I$	$6.35048 - 4.60400I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.238763 + 0.945986I$ $a = -1.46789 + 0.78124I$ $b = -1.49860 + 0.16095I$	$-0.149224 - 0.169896I$	0
$u = \quad 0.238763 - 0.945986I$ $a = -1.46789 - 0.78124I$ $b = -1.49860 - 0.16095I$	$-0.149224 + 0.169896I$	0
$u = \quad 0.740212 + 0.635545I$ $a = \quad 1.069500 + 0.363686I$ $b = -0.394024 - 0.029105I$	$5.62071 - 1.86385I$	0
$u = \quad 0.740212 - 0.635545I$ $a = \quad 1.069500 - 0.363686I$ $b = -0.394024 + 0.029105I$	$5.62071 + 1.86385I$	0
$u = -0.921997 + 0.455468I$ $a = -1.28542 + 0.85638I$ $b = \quad 0.0495941 + 0.0144672I$	$9.9214 + 14.3056I$	0
$u = -0.921997 - 0.455468I$ $a = -1.28542 - 0.85638I$ $b = \quad 0.0495941 - 0.0144672I$	$9.9214 - 14.3056I$	0
$u = -0.378982 + 0.894534I$ $a = -1.23129 + 0.97389I$ $b = -0.208485 + 1.361120I$	$0.347330 + 0.768195I$	0
$u = -0.378982 - 0.894534I$ $a = -1.23129 - 0.97389I$ $b = -0.208485 - 1.361120I$	$0.347330 - 0.768195I$	0
$u = -0.447189 + 0.928338I$ $a = -1.35708 - 1.01684I$ $b = -1.11220 - 1.73109I$	$-1.84221 - 1.36025I$	0
$u = -0.447189 - 0.928338I$ $a = -1.35708 + 1.01684I$ $b = -1.11220 + 1.73109I$	$-1.84221 + 1.36025I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.557374 + 0.791815I$ $a = -0.482399 - 0.768678I$ $b = -1.23517 - 2.06127I$	$7.39094 + 2.59798I$	0
$u = 0.557374 - 0.791815I$ $a = -0.482399 + 0.768678I$ $b = -1.23517 + 2.06127I$	$7.39094 - 2.59798I$	0
$u = 0.398604 + 0.956254I$ $a = -0.169125 - 0.522395I$ $b = 0.81974 - 1.63318I$	$-3.27085 + 1.40346I$	0
$u = 0.398604 - 0.956254I$ $a = -0.169125 + 0.522395I$ $b = 0.81974 + 1.63318I$	$-3.27085 - 1.40346I$	0
$u = -0.958668 + 0.415310I$ $a = 0.488932 - 0.758331I$ $b = -0.119181 - 0.169137I$	$3.09195 + 1.90052I$	0
$u = -0.958668 - 0.415310I$ $a = 0.488932 + 0.758331I$ $b = -0.119181 + 0.169137I$	$3.09195 - 1.90052I$	0
$u = 0.940805 + 0.458237I$ $a = 1.063080 + 0.628106I$ $b = 0.045194 - 0.137682I$	$4.07982 - 8.13142I$	0
$u = 0.940805 - 0.458237I$ $a = 1.063080 - 0.628106I$ $b = 0.045194 + 0.137682I$	$4.07982 + 8.13142I$	0
$u = -0.369144 + 0.878753I$ $a = 0.48718 + 1.32777I$ $b = 0.22971 + 1.48146I$	$-1.46546 - 2.01029I$	0
$u = -0.369144 - 0.878753I$ $a = 0.48718 - 1.32777I$ $b = 0.22971 - 1.48146I$	$-1.46546 + 2.01029I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.432136 + 0.847873I$ $a = 1.288150 + 0.341937I$ $b = -0.434002 - 0.225203I$	$6.21544 + 2.38522I$	0
$u = 0.432136 - 0.847873I$ $a = 1.288150 - 0.341937I$ $b = -0.434002 + 0.225203I$	$6.21544 - 2.38522I$	0
$u = -0.845231 + 0.429893I$ $a = 1.45361 - 0.98536I$ $b = -0.0101961 - 0.0485208I$	$5.40206 + 8.06177I$	0
$u = -0.845231 - 0.429893I$ $a = 1.45361 + 0.98536I$ $b = -0.0101961 + 0.0485208I$	$5.40206 - 8.06177I$	0
$u = 0.548834 + 0.904247I$ $a = -1.068760 - 0.332027I$ $b = 0.552373 + 0.118981I$	$7.03162 + 1.83421I$	0
$u = 0.548834 - 0.904247I$ $a = -1.068760 + 0.332027I$ $b = 0.552373 - 0.118981I$	$7.03162 - 1.83421I$	0
$u = -0.482212 + 0.942267I$ $a = 0.79432 - 1.40082I$ $b = 0.17581 - 2.31004I$	$-1.59798 - 3.73222I$	0
$u = -0.482212 - 0.942267I$ $a = 0.79432 + 1.40082I$ $b = 0.17581 + 2.31004I$	$-1.59798 + 3.73222I$	0
$u = 0.836392 + 0.430610I$ $a = -1.149630 - 0.650383I$ $b = 0.0605292 + 0.1066340I$	$0.92738 - 4.13160I$	0
$u = 0.836392 - 0.430610I$ $a = -1.149630 + 0.650383I$ $b = 0.0605292 - 0.1066340I$	$0.92738 + 4.13160I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.750798+0.748395I$ $a=-0.549187+0.521781I$ $b=\ \ 1.154500+0.228095I$	$9.04363+3.27761I$	0
$u=-0.750798-0.748395I$ $a=-0.549187-0.521781I$ $b=\ \ 1.154500-0.228095I$	$9.04363-3.27761I$	0
$u=-0.014646+0.934202I$ $a=\ \ 0.835336+0.862024I$ $b=\ \ 1.73920+1.44468I$	$5.30699+0.59712I$	0
$u=-0.014646-0.934202I$ $a=\ \ 0.835336-0.862024I$ $b=\ \ 1.73920-1.44468I$	$5.30699-0.59712I$	0
$u=-0.451807+0.969583I$ $a=-0.347414-1.097210I$ $b=-0.85650-3.31703I$	$-0.60140-2.79339I$	0
$u=-0.451807-0.969583I$ $a=-0.347414+1.097210I$ $b=-0.85650+3.31703I$	$-0.60140+2.79339I$	0
$u=\ \ 0.421276+0.984650I$ $a=\ \ 0.707714+0.767029I$ $b=\ \ 1.63573+1.64755I$	$5.81286+1.07075I$	0
$u=\ \ 0.421276-0.984650I$ $a=\ \ 0.707714-0.767029I$ $b=\ \ 1.63573-1.64755I$	$5.81286-1.07075I$	0
$u=\ \ 0.284246+0.884148I$ $a=-0.736505+0.773825I$ $b=\ \ 0.183588+1.283280I$	$-1.84261-1.12348I$	0
$u=\ \ 0.284246-0.884148I$ $a=-0.736505-0.773825I$ $b=\ \ 0.183588-1.283280I$	$-1.84261+1.12348I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.438175 + 0.991043I$ $a = 0.39167 - 2.14462I$ $b = 0.73933 - 3.19107I$	$-1.19869 + 2.96238I$	0
$u = 0.438175 - 0.991043I$ $a = 0.39167 + 2.14462I$ $b = 0.73933 + 3.19107I$	$-1.19869 - 2.96238I$	0
$u = 0.928409 + 0.561212I$ $a = -0.881006 - 0.537475I$ $b = 0.267249 - 0.407232I$	$5.32602 - 4.19072I$	0
$u = 0.928409 - 0.561212I$ $a = -0.881006 + 0.537475I$ $b = 0.267249 + 0.407232I$	$5.32602 + 4.19072I$	0
$u = -0.741730 + 0.535042I$ $a = -1.77120 + 0.68439I$ $b = -0.0960172 + 0.0442305I$	$10.40440 + 1.43479I$	0
$u = -0.741730 - 0.535042I$ $a = -1.77120 - 0.68439I$ $b = -0.0960172 - 0.0442305I$	$10.40440 - 1.43479I$	0
$u = 0.465130 + 0.981677I$ $a = 0.416192 - 0.861546I$ $b = -0.29798 - 2.04261I$	$-2.82509 + 4.30262I$	0
$u = 0.465130 - 0.981677I$ $a = 0.416192 + 0.861546I$ $b = -0.29798 + 2.04261I$	$-2.82509 - 4.30262I$	0
$u = -0.534504 + 0.947191I$ $a = 1.60616 + 0.59004I$ $b = 0.96702 + 1.16237I$	$1.37832 - 5.70791I$	0
$u = -0.534504 - 0.947191I$ $a = 1.60616 - 0.59004I$ $b = 0.96702 - 1.16237I$	$1.37832 + 5.70791I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.041954 + 1.087430I$ $a = -0.461914 + 0.776057I$ $b = -0.280749 + 1.304690I$	$-2.21523 - 1.50731I$	0
$u = 0.041954 - 1.087430I$ $a = -0.461914 - 0.776057I$ $b = -0.280749 - 1.304690I$	$-2.21523 + 1.50731I$	0
$u = -1.065720 + 0.263554I$ $a = -0.240281 + 0.642974I$ $b = 0.054112 - 0.432591I$	$7.55264 - 0.93341I$	0
$u = -1.065720 - 0.263554I$ $a = -0.240281 - 0.642974I$ $b = 0.054112 + 0.432591I$	$7.55264 + 0.93341I$	0
$u = -0.757902 + 0.488167I$ $a = 0.601889 - 0.713001I$ $b = -0.532600 + 0.366916I$	$4.74807 + 0.41354I$	0
$u = -0.757902 - 0.488167I$ $a = 0.601889 + 0.713001I$ $b = -0.532600 - 0.366916I$	$4.74807 - 0.41354I$	0
$u = -0.521044 + 0.971902I$ $a = -0.310263 + 0.800196I$ $b = 1.26445 + 2.47889I$	$4.98219 - 9.72797I$	0
$u = -0.521044 - 0.971902I$ $a = -0.310263 - 0.800196I$ $b = 1.26445 - 2.47889I$	$4.98219 + 9.72797I$	0
$u = 0.926508 + 0.613901I$ $a = -0.357281 - 0.921852I$ $b = -0.0254180 - 0.0761209I$	$10.8514 + 9.4860I$	0
$u = 0.926508 - 0.613901I$ $a = -0.357281 + 0.921852I$ $b = -0.0254180 + 0.0761209I$	$10.8514 - 9.4860I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.501121+0.730651I$ $a=-0.30445-1.76265I$ $b=\ \ 0.26676-2.11459I$	$2.09757+1.45815I$	0
$u=-0.501121-0.730651I$ $a=-0.30445+1.76265I$ $b=\ \ 0.26676+2.11459I$	$2.09757-1.45815I$	0
$u=-0.714764+0.517405I$ $a=-0.816943+0.755481I$ $b=-0.173082+0.127356I$	$1.69961-1.06857I$	0
$u=-0.714764-0.517405I$ $a=-0.816943-0.755481I$ $b=-0.173082-0.127356I$	$1.69961+1.06857I$	0
$u=-0.465464+1.021420I$ $a=-0.715803+0.902529I$ $b=-0.75375+1.64324I$	$-0.30359-3.66478I$	0
$u=-0.465464-1.021420I$ $a=-0.715803-0.902529I$ $b=-0.75375-1.64324I$	$-0.30359+3.66478I$	0
$u=-0.401285+0.773801I$ $a=\ \ 1.43942-0.22752I$ $b=\ \ 0.640016-1.131530I$	$-0.945604-0.017885I$	0
$u=-0.401285-0.773801I$ $a=\ \ 1.43942+0.22752I$ $b=\ \ 0.640016+1.131530I$	$-0.945604+0.017885I$	0
$u=\ \ 0.525055+1.001130I$ $a=\ \ 0.425312+0.520951I$ $b=-0.621904+1.250260I$	$-0.28254+6.78019I$	0
$u=\ \ 0.525055-1.001130I$ $a=\ \ 0.425312-0.520951I$ $b=-0.621904-1.250260I$	$-0.28254-6.78019I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.531748 + 0.997649I$ $a = -1.21483 + 1.57023I$ $b = -0.98013 + 2.45169I$	$4.62202 + 10.47530I$	0
$u = 0.531748 - 0.997649I$ $a = -1.21483 - 1.57023I$ $b = -0.98013 - 2.45169I$	$4.62202 - 10.47530I$	0
$u = -0.270943 + 0.818131I$ $a = 0.239998 + 0.917143I$ $b = -1.288110 - 0.410197I$	$0.290512 - 0.483114I$	0
$u = -0.270943 - 0.818131I$ $a = 0.239998 - 0.917143I$ $b = -1.288110 + 0.410197I$	$0.290512 + 0.483114I$	0
$u = -0.852393 + 0.058059I$ $a = -0.425356 + 0.869711I$ $b = 0.043667 + 0.320666I$	$2.54431 - 0.44312I$	0
$u = -0.852393 - 0.058059I$ $a = -0.425356 - 0.869711I$ $b = 0.043667 - 0.320666I$	$2.54431 + 0.44312I$	0
$u = -0.922500 + 0.689599I$ $a = 0.640833 - 0.410913I$ $b = 0.189476 + 0.228100I$	$5.38406 - 2.97330I$	0
$u = -0.922500 - 0.689599I$ $a = 0.640833 + 0.410913I$ $b = 0.189476 - 0.228100I$	$5.38406 + 2.97330I$	0
$u = -0.671021 + 0.942363I$ $a = -0.358673 + 0.356468I$ $b = -0.71479 + 2.16500I$	$8.43126 - 8.68485I$	0
$u = -0.671021 - 0.942363I$ $a = -0.358673 - 0.356468I$ $b = -0.71479 - 2.16500I$	$8.43126 + 8.68485I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.760797 + 0.357498I$ $a = -0.23185 - 1.57632I$ $b = 0.0203426 + 0.0797491I$	$9.59548 - 1.17327I$	0
$u = 0.760797 - 0.357498I$ $a = -0.23185 + 1.57632I$ $b = 0.0203426 - 0.0797491I$	$9.59548 + 1.17327I$	0
$u = -0.440537 + 0.706562I$ $a = -0.693077 - 0.196240I$ $b = 0.80705 + 2.06031I$	$5.91470 + 5.66066I$	0
$u = -0.440537 - 0.706562I$ $a = -0.693077 + 0.196240I$ $b = 0.80705 - 2.06031I$	$5.91470 - 5.66066I$	0
$u = -0.738876 + 0.365341I$ $a = 0.458731 + 0.805769I$ $b = 0.126492 + 0.651881I$	$3.83063 - 0.18506I$	0
$u = -0.738876 - 0.365341I$ $a = 0.458731 - 0.805769I$ $b = 0.126492 - 0.651881I$	$3.83063 + 0.18506I$	0
$u = 0.494363 + 1.070300I$ $a = 1.39081 + 0.64361I$ $b = 1.44093 + 1.10957I$	$1.52438 + 6.76882I$	0
$u = 0.494363 - 1.070300I$ $a = 1.39081 - 0.64361I$ $b = 1.44093 - 1.10957I$	$1.52438 - 6.76882I$	0
$u = 0.644086 + 0.988561I$ $a = 0.615047 + 0.507180I$ $b = 1.18887 + 1.14949I$	$5.15147 + 0.73865I$	0
$u = 0.644086 - 0.988561I$ $a = 0.615047 - 0.507180I$ $b = 1.18887 - 1.14949I$	$5.15147 - 0.73865I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.640621 + 1.001180I$ $a = 0.232834 + 0.906106I$ $b = 0.60213 + 2.28399I$	$4.50826 + 7.12902I$	0
$u = 0.640621 - 1.001180I$ $a = 0.232834 - 0.906106I$ $b = 0.60213 - 2.28399I$	$4.50826 - 7.12902I$	0
$u = 0.663496 + 0.991218I$ $a = -0.62906 - 1.52482I$ $b = -0.98281 - 2.09318I$	$9.43359 + 9.90023I$	0
$u = 0.663496 - 0.991218I$ $a = -0.62906 + 1.52482I$ $b = -0.98281 + 2.09318I$	$9.43359 - 9.90023I$	0
$u = -0.056239 + 1.196750I$ $a = 0.530645 - 0.630207I$ $b = 0.51561 - 1.48474I$	$-1.52756 - 2.48388I$	0
$u = -0.056239 - 1.196750I$ $a = 0.530645 + 0.630207I$ $b = 0.51561 + 1.48474I$	$-1.52756 + 2.48388I$	0
$u = -0.577117 + 1.054040I$ $a = -0.782117 - 0.364603I$ $b = -0.543377 - 0.707896I$	$1.90034 - 4.71281I$	0
$u = -0.577117 - 1.054040I$ $a = -0.782117 + 0.364603I$ $b = -0.543377 + 0.707896I$	$1.90034 + 4.71281I$	0
$u = -0.100366 + 1.204710I$ $a = -0.889302 - 0.610483I$ $b = -1.70613 - 1.21344I$	$-0.23525 + 5.56676I$	0
$u = -0.100366 - 1.204710I$ $a = -0.889302 + 0.610483I$ $b = -1.70613 + 1.21344I$	$-0.23525 - 5.56676I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.734445 + 0.280825I$ $a = 0.76609 + 1.50116I$ $b = 0.201745 + 0.747900I$	$3.90801 - 2.31367I$	0
$u = 0.734445 - 0.280825I$ $a = 0.76609 - 1.50116I$ $b = 0.201745 - 0.747900I$	$3.90801 + 2.31367I$	0
$u = -0.622617 + 1.045780I$ $a = -0.51612 + 1.46152I$ $b = -0.95413 + 2.80373I$	$8.88501 - 6.63527I$	0
$u = -0.622617 - 1.045780I$ $a = -0.51612 - 1.46152I$ $b = -0.95413 - 2.80373I$	$8.88501 + 6.63527I$	0
$u = -0.758008 + 0.968853I$ $a = 0.078152 - 0.866664I$ $b = 0.467844 - 1.307210I$	$4.52468 - 3.15181I$	0
$u = -0.758008 - 0.968853I$ $a = 0.078152 + 0.866664I$ $b = 0.467844 + 1.307210I$	$4.52468 + 3.15181I$	0
$u = 0.116118 + 1.225130I$ $a = 0.423933 - 0.475849I$ $b = 0.98332 - 1.06501I$	$-4.65639 - 1.57628I$	0
$u = 0.116118 - 1.225130I$ $a = 0.423933 + 0.475849I$ $b = 0.98332 + 1.06501I$	$-4.65639 + 1.57628I$	0
$u = -0.587947 + 1.089730I$ $a = -0.488979 + 0.823994I$ $b = -0.73857 + 1.54031I$	$-0.05297 - 3.92486I$	0
$u = -0.587947 - 1.089730I$ $a = -0.488979 - 0.823994I$ $b = -0.73857 - 1.54031I$	$-0.05297 + 3.92486I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.597767+1.098250I$ $a=\ 0.241632-0.476910I$ $b=\ 1.12063-1.39128I$	$2.91053-5.58907I$	0
$u=-0.597767-1.098250I$ $a=\ 0.241632+0.476910I$ $b=\ 1.12063+1.39128I$	$2.91053+5.58907I$	0
$u=\ 0.411445+0.602119I$ $a=\ 1.61840-1.89272I$ $b=\ 0.78147-1.42119I$	$5.88132-6.31602I$	0
$u=\ 0.411445-0.602119I$ $a=\ 1.61840+1.89272I$ $b=\ 0.78147+1.42119I$	$5.88132+6.31602I$	0
$u=\ 0.568053+1.147570I$ $a=-0.863970-0.313164I$ $b=-1.81928-0.62729I$	$7.23173+6.22543I$	0
$u=\ 0.568053-1.147570I$ $a=-0.863970+0.313164I$ $b=-1.81928+0.62729I$	$7.23173-6.22543I$	0
$u=-0.478985+1.187850I$ $a=\ 0.198688-0.480794I$ $b=\ 1.18990-0.96758I$	$3.00598-5.77364I$	0
$u=-0.478985-1.187850I$ $a=\ 0.198688+0.480794I$ $b=\ 1.18990+0.96758I$	$3.00598+5.77364I$	0
$u=\ 0.660383+1.100910I$ $a=\ 0.566795+0.948734I$ $b=\ 0.66189+1.85514I$	$2.09234+8.71613I$	0
$u=\ 0.660383-1.100910I$ $a=\ 0.566795-0.948734I$ $b=\ 0.66189-1.85514I$	$2.09234-8.71613I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.632796 + 1.117300I$ $a = -0.364264 - 1.054470I$ $b = -0.86021 - 2.16893I$	$-1.12213 + 9.60208I$	0
$u = 0.632796 - 1.117300I$ $a = -0.364264 + 1.054470I$ $b = -0.86021 + 2.16893I$	$-1.12213 - 9.60208I$	0
$u = -0.632340 + 1.120450I$ $a = 0.64477 - 1.26788I$ $b = 1.23150 - 2.55330I$	$3.33204 - 13.55160I$	0
$u = -0.632340 - 1.120450I$ $a = 0.64477 + 1.26788I$ $b = 1.23150 + 2.55330I$	$3.33204 + 13.55160I$	0
$u = -0.042404 + 1.293600I$ $a = 0.777671 + 0.567941I$ $b = 1.51752 + 1.19079I$	$3.53253 + 11.55200I$	0
$u = -0.042404 - 1.293600I$ $a = 0.777671 - 0.567941I$ $b = 1.51752 - 1.19079I$	$3.53253 - 11.55200I$	0
$u = 0.774048 + 1.056980I$ $a = -0.551602 - 0.389993I$ $b = -0.983474 - 0.734951I$	$9.52188 - 3.29261I$	0
$u = 0.774048 - 1.056980I$ $a = -0.551602 + 0.389993I$ $b = -0.983474 + 0.734951I$	$9.52188 + 3.29261I$	0
$u = 0.702770 + 1.112990I$ $a = -0.451366 - 0.854073I$ $b = -0.46492 - 2.01813I$	$3.60006 + 10.19360I$	0
$u = 0.702770 - 1.112990I$ $a = -0.451366 + 0.854073I$ $b = -0.46492 + 2.01813I$	$3.60006 - 10.19360I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.667913+1.140160I$ $a=-0.566023+1.178760I$ $b=-1.11865+2.41799I$	$7.8323-20.1341I$	0
$u=-0.667913-1.140160I$ $a=-0.566023-1.178760I$ $b=-1.11865-2.41799I$	$7.8323+20.1341I$	0
$u=0.675516+1.143700I$ $a=0.362254+1.059340I$ $b=0.88101+2.05461I$	$1.9828+14.0339I$	0
$u=0.675516-1.143700I$ $a=0.362254-1.059340I$ $b=0.88101-2.05461I$	$1.9828-14.0339I$	0
$u=-0.666766+1.161400I$ $a=0.491921-0.629128I$ $b=0.81799-1.38403I$	$0.81252-7.80419I$	0
$u=-0.666766-1.161400I$ $a=0.491921+0.629128I$ $b=0.81799+1.38403I$	$0.81252+7.80419I$	0
$u=0.016408+1.348930I$ $a=-0.349964+0.409208I$ $b=-0.885840+0.807709I$	$-2.56947-5.22751I$	0
$u=0.016408-1.348930I$ $a=-0.349964-0.409208I$ $b=-0.885840-0.807709I$	$-2.56947+5.22751I$	0
$u=-0.167388+1.362480I$ $a=-0.332729+0.079366I$ $b=-0.518566-0.036861I$	$-3.18278-1.53386I$	0
$u=-0.167388-1.362480I$ $a=-0.332729-0.079366I$ $b=-0.518566+0.036861I$	$-3.18278+1.53386I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.244701 + 0.566261I$ $a = 0.076776 - 0.181732I$ $b = -0.73028 + 1.29401I$	$1.13389 - 2.73035I$	$2.00000 + 6.79549I$
$u = 0.244701 - 0.566261I$ $a = 0.076776 + 0.181732I$ $b = -0.73028 - 1.29401I$	$1.13389 + 2.73035I$	$2.00000 - 6.79549I$
$u = -0.289221 + 1.358550I$ $a = 0.314757 + 0.170460I$ $b = 0.374907 + 0.399764I$	$-2.17506 - 4.66653I$	0
$u = -0.289221 - 1.358550I$ $a = 0.314757 - 0.170460I$ $b = 0.374907 - 0.399764I$	$-2.17506 + 4.66653I$	0
$u = -0.73047 + 1.21971I$ $a = -0.142462 + 0.561515I$ $b = -0.790045 + 1.131310I$	$4.74108 - 5.50151I$	0
$u = -0.73047 - 1.21971I$ $a = -0.142462 - 0.561515I$ $b = -0.790045 - 1.131310I$	$4.74108 + 5.50151I$	0
$u = -0.459644$ $a = -0.736700$ $b = -0.346815$	0.946440	11.8490
$u = 0.266811 + 0.360332I$ $a = 0.491547 - 0.576665I$ $b = -0.623860 + 0.971366I$	$1.14558 - 2.72858I$	$2.11016 + 5.78056I$
$u = 0.266811 - 0.360332I$ $a = 0.491547 + 0.576665I$ $b = -0.623860 - 0.971366I$	$1.14558 + 2.72858I$	$2.11016 - 5.78056I$
$u = 0.228737 + 0.089878I$ $a = -2.98748 - 0.18037I$ $b = 0.115631 + 0.591309I$	$-1.22014 - 1.07257I$	$-2.57454 + 4.07800I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 0.228737 - 0.089878I$ $a = -2.98748 + 0.18037I$ $b = \ 0.115631 - 0.591309I$	$-1.22014 + 1.07257I$	$-2.57454 - 4.07800I$
$u = -0.008869 + 0.159476I$ $a = \ 0.81014 - 7.41046I$ $b = \ 1.083760 - 0.592768I$	$5.69146 - 6.45095I$	$6.63966 + 5.51048I$
$u = -0.008869 - 0.159476I$ $a = \ 0.81014 + 7.41046I$ $b = \ 1.083760 + 0.592768I$	$5.69146 + 6.45095I$	$6.63966 - 5.51048I$
$u = \ 0.138622$ $a = -10.2464$ $b = -0.698276$	0.573200	10.2980

II.

$\boldsymbol{I_2^u = \langle -6.09\times10^{12}u^{40}+5.52\times10^{11}u^{39}+\cdots+4.00\times10^{12}b-3.51\times10^{13},\ -2.56\times10^{13}u^{40}-3.19\times10^{13}u^{39}+\cdots+4.00\times10^{12}a-3.85\times10^{13},\ u^{41}+2u^{40}+\cdots+8u+1\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix}1\\0\end{pmatrix}$$

$$a_6 = \begin{pmatrix}0\\u\end{pmatrix}$$

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

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

$$a_1 = \begin{pmatrix}u^2+1\\-u^4\end{pmatrix}$$

$$a_{10} = \begin{pmatrix}6.39769u^{40}+7.96197u^{39}+\cdots+57.5210u+9.60566\\1.52053u^{40}-0.137871u^{39}+\cdots+45.6217u+8.77561\end{pmatrix}$$

$$a_{11} = \begin{pmatrix}9.89050u^{40}+14.0150u^{39}+\cdots+132.554u+22.6007\\1.54527u^{40}+0.320373u^{39}+\cdots+56.3245u+9.92702\end{pmatrix}$$

$$a_5 = \begin{pmatrix}-17.9506u^{40}-30.0895u^{39}+\cdots-216.262u-34.6837\\3.14318u^{40}+3.67726u^{39}+\cdots-21.5143u-3.69934\end{pmatrix}$$

$$a_9 = \begin{pmatrix}5.01803u^{40}+6.86196u^{39}+\cdots+49.1623u+7.95118\\0.140878u^{40}-1.23788u^{39}+\cdots+37.2630u+7.12114\end{pmatrix}$$

$$a_4 = \begin{pmatrix}-1.61911u^{40}-5.32409u^{39}+\cdots-21.2126u-2.44427\\-8.53257u^{40}-17.1792u^{39}+\cdots-97.1531u-12.9477\end{pmatrix}$$

$$a_8 = \begin{pmatrix}-3.52930u^{40}-7.77099u^{39}+\cdots-57.2363u-10.3891\\0.317794u^{40}+0.583513u^{39}+\cdots-3.39487u+1.66939\end{pmatrix}$$

$$a_{12} = \begin{pmatrix}21.0938u^{40}+33.7667u^{39}+\cdots+193.747u+31.9844\\0.0404309u^{40}+3.02209u^{39}+\cdots-35.1775u-5.24922\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes

$$= -\frac{86468953253005}{2001681961463}u^{40}-\frac{145958075951024}{2001681961463}u^{39}+\cdots-\frac{823927223442766}{2001681961463}u-\frac{123141726376632}{2001681961463}$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{41} - 22u^{40} + \cdots - 16u^2 + 1$
c_2	$u^{41} + 2u^{40} + \cdots + 8u + 1$
c_3	$u^{41} + 6u^{39} + \cdots + 3u - 1$
c_4	$u^{41} + 3u^{40} + \cdots + 5u - 1$
c_5	$u^{41} + u^{40} + \cdots - 4u - 1$
c_6	$u^{41} - 2u^{40} + \cdots + 8u - 1$
c_7	$u^{41} + 2u^{40} + \cdots + 6u - 1$
c_8	$u^{41} - 17u^{40} + \cdots + 74u - 4$
c_9	$u^{41} + 3u^{40} + \cdots + u + 1$
c_{10}	$u^{41} + 4u^{40} + \cdots + 6u + 1$
c_{11}	$u^{41} + 17u^{40} + \cdots + 74u + 4$
c_{12}	$u^{41} - 3u^{40} + \cdots + 5u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{41} + 2y^{40} + \cdots + 32y - 1$
c_2, c_6	$y^{41} + 22y^{40} + \cdots + 16y^2 - 1$
c_3	$y^{41} + 12y^{40} + \cdots + 23y - 1$
c_4, c_{12}	$y^{41} - 39y^{40} + \cdots + 27y - 1$
c_5	$y^{41} - 7y^{40} + \cdots - 20y - 1$
c_7	$y^{41} - 4y^{40} + \cdots + 24y - 1$
c_8, c_{11}	$y^{41} + 21y^{40} + \cdots + 268y - 16$
c_9	$y^{41} - 17y^{40} + \cdots + 7y - 1$
c_{10}	$y^{41} - 18y^{40} + \cdots + 4y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.359332 + 0.954220I$ $a = 0.382234 - 0.780561I$ $b = -0.362851 + 0.215006I$	$4.67955 + 8.01277I$	$4.35208 - 7.49932I$
$u = 0.359332 - 0.954220I$ $a = 0.382234 + 0.780561I$ $b = -0.362851 - 0.215006I$	$4.67955 - 8.01277I$	$4.35208 + 7.49932I$
$u = 0.734475 + 0.750527I$ $a = 0.933361 + 0.012886I$ $b = -0.227858 + 0.303958I$	$7.45980 - 4.10919I$	$8.44521 + 3.61916I$
$u = 0.734475 - 0.750527I$ $a = 0.933361 - 0.012886I$ $b = -0.227858 - 0.303958I$	$7.45980 + 4.10919I$	$8.44521 - 3.61916I$
$u = -0.343196 + 0.873757I$ $a = 1.50419 + 0.50926I$ $b = 0.854173 + 0.102791I$	$-1.86107 - 0.15099I$	$-5.41361 - 0.87603I$
$u = -0.343196 - 0.873757I$ $a = 1.50419 - 0.50926I$ $b = 0.854173 - 0.102791I$	$-1.86107 + 0.15099I$	$-5.41361 + 0.87603I$
$u = -0.429417 + 0.973737I$ $a = -0.12259 - 1.61010I$ $b = -0.29477 - 2.60345I$	$-2.42579 - 2.92088I$	$-7.06001 + 4.29578I$
$u = -0.429417 - 0.973737I$ $a = -0.12259 + 1.61010I$ $b = -0.29477 + 2.60345I$	$-2.42579 + 2.92088I$	$-7.06001 - 4.29578I$
$u = 0.468499 + 0.957879I$ $a = 0.42414 - 1.47466I$ $b = 0.91887 - 3.28990I$	$-0.11865 + 2.66752I$	$11.06553 - 2.13389I$
$u = 0.468499 - 0.957879I$ $a = 0.42414 + 1.47466I$ $b = 0.91887 + 3.28990I$	$-0.11865 - 2.66752I$	$11.06553 + 2.13389I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.369263 + 0.854986I$ $a = -0.619409 + 1.134990I$ $b = -1.16194 + 2.81751I$	$5.01655 - 4.97589I$	$4.19587 + 2.13861I$
$u = 0.369263 - 0.854986I$ $a = -0.619409 - 1.134990I$ $b = -1.16194 - 2.81751I$	$5.01655 + 4.97589I$	$4.19587 - 2.13861I$
$u = 0.949373 + 0.514498I$ $a = -0.827303 - 0.679345I$ $b = 0.115602 - 0.326407I$	$3.80067 - 3.76175I$	$4.04687 + 8.60808I$
$u = 0.949373 - 0.514498I$ $a = -0.827303 + 0.679345I$ $b = 0.115602 + 0.326407I$	$3.80067 + 3.76175I$	$4.04687 - 8.60808I$
$u = -0.053293 + 1.107340I$ $a = 0.383401 - 0.688407I$ $b = 0.37077 - 1.43255I$	$-3.14304 - 1.96905I$	$-5.47544 + 4.23016I$
$u = -0.053293 - 1.107340I$ $a = 0.383401 + 0.688407I$ $b = 0.37077 + 1.43255I$	$-3.14304 + 1.96905I$	$-5.47544 - 4.23016I$
$u = -0.842946 + 0.184688I$ $a = -0.063766 + 0.943914I$ $b = 0.088811 + 0.528603I$	$2.22526 + 1.26142I$	$0.55804 - 3.51091I$
$u = -0.842946 - 0.184688I$ $a = -0.063766 - 0.943914I$ $b = 0.088811 - 0.528603I$	$2.22526 - 1.26142I$	$0.55804 + 3.51091I$
$u = 0.627069 + 0.950079I$ $a = 0.035353 + 1.094250I$ $b = -0.23352 + 2.49795I$	$6.81502 + 9.30322I$	$7.15508 - 8.78170I$
$u = 0.627069 - 0.950079I$ $a = 0.035353 - 1.094250I$ $b = -0.23352 - 2.49795I$	$6.81502 - 9.30322I$	$7.15508 + 8.78170I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.515078+1.019620I$ $a=-1.174700+0.250763I$ $b=-0.878460+0.495854I$	$-0.15606-5.46645I$	$0.+6.29888I$
$u=-0.515078-1.019620I$ $a=-1.174700-0.250763I$ $b=-0.878460-0.495854I$	$-0.15606+5.46645I$	$0.-6.29888I$
$u=0.384568+0.731819I$ $a=-1.05608+1.11737I$ $b=0.281134-0.176060I$	$0.694797+1.001360I$	$9.13676-7.10067I$
$u=0.384568-0.731819I$ $a=-1.05608-1.11737I$ $b=0.281134+0.176060I$	$0.694797-1.001360I$	$9.13676+7.10067I$
$u=-0.348151+0.719690I$ $a=-0.47780+1.40512I$ $b=0.24995+2.03906I$	$1.17599+1.75541I$	$1.77038-1.38585I$
$u=-0.348151-0.719690I$ $a=-0.47780-1.40512I$ $b=0.24995-2.03906I$	$1.17599-1.75541I$	$1.77038+1.38585I$
$u=-0.666585+0.289368I$ $a=-0.769093+0.899300I$ $b=0.041726-0.797647I$	$6.92177-0.69506I$	$8.24781-0.01319I$
$u=-0.666585-0.289368I$ $a=-0.769093-0.899300I$ $b=0.041726+0.797647I$	$6.92177+0.69506I$	$8.24781+0.01319I$
$u=-0.709130+1.085470I$ $a=0.031648+0.615539I$ $b=-0.58552+1.35606I$	$4.78480-4.89513I$	0
$u=-0.709130-1.085470I$ $a=0.031648-0.615539I$ $b=-0.58552-1.35606I$	$4.78480+4.89513I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.683871 + 1.128830I$ $a = -0.530714 - 0.869240I$ $b = -0.72080 - 1.85587I$	$1.87314 + 9.72586I$	0
$u = 0.683871 - 1.128830I$ $a = -0.530714 + 0.869240I$ $b = -0.72080 + 1.85587I$	$1.87314 - 9.72586I$	0
$u = -0.120430 + 1.319130I$ $a = 0.316599 - 0.217879I$ $b = 0.396791 - 0.560081I$	$-3.36099 - 1.75947I$	0
$u = -0.120430 - 1.319130I$ $a = 0.316599 + 0.217879I$ $b = 0.396791 + 0.560081I$	$-3.36099 + 1.75947I$	0
$u = -0.633061 + 1.230740I$ $a = 0.283268 - 0.419781I$ $b = 0.99610 - 1.01805I$	$3.61944 - 5.83436I$	0
$u = -0.633061 - 1.230740I$ $a = 0.283268 + 0.419781I$ $b = 0.99610 + 1.01805I$	$3.61944 + 5.83436I$	0
$u = -0.218617 + 1.378300I$ $a = -0.251015 - 0.030734I$ $b = -0.488752 + 0.205065I$	$-1.95628 - 4.86397I$	0
$u = -0.218617 - 1.378300I$ $a = -0.251015 + 0.030734I$ $b = -0.488752 - 0.205065I$	$-1.95628 + 4.86397I$	0
$u = -0.475752 + 0.158610I$ $a = 0.42257 - 1.75445I$ $b = -0.473322 + 0.842930I$	$6.83488 + 0.66437I$	$9.06576 - 0.01946I$
$u = -0.475752 - 0.158610I$ $a = 0.42257 + 1.75445I$ $b = -0.473322 - 0.842930I$	$6.83488 - 0.66437I$	$9.06576 + 0.01946I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.441592$		
$a = \quad 2.35141$	-0.223040	0.0879850
$b = \quad 0.227744$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{41}-22u^{40}+\cdots-16u^2+1)(u^{164}+73u^{163}+\cdots+38u+1)$
c_2	$(u^{41}+2u^{40}+\cdots+8u+1)(u^{164}-3u^{163}+\cdots-12u-1)$
c_3	$(u^{41}+6u^{39}+\cdots+3u-1)(u^{164}+u^{163}+\cdots-6629u+661)$
c_4	$(u^{41}+3u^{40}+\cdots+5u-1)(u^{164}-70u^{162}+\cdots+183149u-105263)$
c_5	$(u^{41}+u^{40}+\cdots-4u-1)(u^{164}+2u^{163}+\cdots+7727742u-383531)$
c_6	$(u^{41}-2u^{40}+\cdots+8u-1)(u^{164}-3u^{163}+\cdots-12u-1)$
c_7	$(u^{41}+2u^{40}+\cdots+6u-1)$ $\cdot(u^{164}-3u^{163}+\cdots-3133307254u+688167281)$
c_8	$(u^{41}-17u^{40}+\cdots+74u-4)$ $\cdot(u^{164}+10u^{163}+\cdots+815546u-215404)$
c_9	$(u^{41}+3u^{40}+\cdots+u+1)(u^{164}-16u^{163}+\cdots+4721792u-344128)$
c_{10}	$(u^{41}+4u^{40}+\cdots+6u+1)$ $\cdot(u^{164}+17u^{163}+\cdots+79677738u+6137707)$
c_{11}	$(u^{41}+17u^{40}+\cdots+74u+4)$ $\cdot(u^{164}+10u^{163}+\cdots+815546u-215404)$
c_{12}	$(u^{41}-3u^{40}+\cdots+5u+1)(u^{164}-70u^{162}+\cdots+183149u-105263)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{41}+2y^{40}+\cdots+32y-1)(y^{164}+45y^{163}+\cdots-5694y+1)$
c_2, c_6	$(y^{41}+22y^{40}+\cdots+16y^2-1)(y^{164}+73y^{163}+\cdots+38y+1)$
c_3	$(y^{41}+12y^{40}+\cdots+23y-1)$ $\cdot(y^{164}+3y^{163}+\cdots+288317263y+436921)$
c_4, c_{12}	$(y^{41}-39y^{40}+\cdots+27y-1)$ $\cdot(y^{164}-140y^{163}+\cdots+455834236047y+11080299169)$
c_5	$(y^{41}-7y^{40}+\cdots-20y-1)$ $\cdot(y^{164}+36y^{163}+\cdots-17079481340522y+147096027961)$
c_7	$(y^{41}-4y^{40}+\cdots+24y-1)$ $\cdot(y^{164}-65y^{163}+\cdots-2.11\times10^{19}y+4.74\times10^{17})$
c_8, c_{11}	$(y^{41}+21y^{40}+\cdots+268y-16)$ $\cdot(y^{164}+108y^{163}+\cdots-1951599728220y+46398883216)$
c_9	$(y^{41}-17y^{40}+\cdots+7y-1)$ $\cdot(y^{164}+22y^{163}+\cdots-2240828266496y+118424080384)$
c_{10}	$(y^{41}-18y^{40}+\cdots+4y-1)$ $\cdot(y^{164}-43y^{163}+\cdots+595530200008586y+37671447217849)$