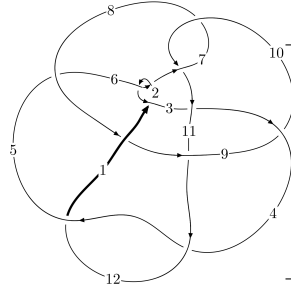
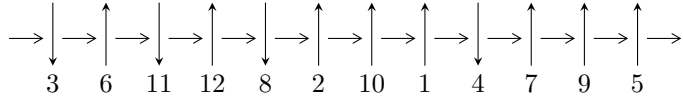


12a₀₄₈₇ (K12a₀₄₈₇)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle 6.97834 \times 10^{541} u^{174} + 6.18922 \times 10^{542} u^{173} + \dots + 5.84381 \times 10^{542} b + 4.55462 \times 10^{545}, \\ 3.74109 \times 10^{545} u^{174} + 1.30601 \times 10^{546} u^{173} + \dots + 6.52753 \times 10^{545} a + 4.73645 \times 10^{547}, \\ u^{175} + 4u^{174} + \dots + 6175u + 1117 \rangle$$

$$I_2^u = \langle 8832633158u^{43} + 28505051997u^{42} + \dots + 4990744411b + 36995583025, \\ 53295260397u^{43} - 140240440915u^{42} + \dots + 4990744411a - 80983955218, \\ u^{44} - u^{43} + \dots - 5u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 219 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.

$$\mathbf{I. } I_1^u = \langle 6.98 \times 10^{541} u^{174} + 6.19 \times 10^{542} u^{173} + \dots + 5.84 \times 10^{542} b + 4.55 \times 10^{545}, 3.74 \times 10^{545} u^{174} + 1.31 \times 10^{546} u^{173} + \dots + 6.53 \times 10^{545} a + 4.74 \times 10^{547}, u^{175} + 4u^{174} + \dots + 6175u + 1117 \rangle$$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

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

$$a_{11} = \begin{pmatrix} -0.573125u^{174} - 2.00077u^{173} + \dots - 1079.69u - 72.5611 \\ -0.119414u^{174} - 1.05911u^{173} + \dots - 3832.66u - 779.393 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.669635u^{174} + 0.835488u^{173} + \dots - 6116.01u - 1455.53 \\ -0.256227u^{174} - 0.356799u^{173} + \dots + 2129.74u + 508.045 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.453711u^{174} - 0.941658u^{173} + \dots + 2752.96u + 706.832 \\ -0.119414u^{174} - 1.05911u^{173} + \dots - 3832.66u - 779.393 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -2.07547u^{174} - 7.00149u^{173} + \dots - 3353.22u - 202.885 \\ 0.0526862u^{174} - 0.663567u^{173} + \dots - 4427.74u - 936.746 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.104480u^{174} + 1.55732u^{173} + \dots + 5981.79u + 1247.39 \\ 0.0420972u^{174} - 0.484376u^{173} + \dots - 2892.27u - 619.913 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -2.09026u^{174} - 7.90330u^{173} + \dots - 8049.25u - 1190.52 \\ -0.0104941u^{174} - 0.486964u^{173} + \dots - 2360.15u - 486.146 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1.05839u^{174} + 5.35345u^{173} + \dots + 11562.0u + 2160.82 \\ -0.305282u^{174} - 1.96470u^{173} + \dots - 5457.81u - 1056.61 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $-1.32452u^{174} - 4.02580u^{173} + \dots + 31.4211u + 283.875$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{175} + 84u^{174} + \dots - 21510473u - 1247689$
c_2, c_6	$u^{175} - 4u^{174} + \dots + 6175u - 1117$
c_3	$u^{175} + 5u^{174} + \dots - 200903543u - 14492227$
c_4, c_{12}	$u^{175} + u^{174} + \dots + 38u - 1$
c_5	$u^{175} - 9u^{174} + \dots + 1244051648u - 87632999$
c_7, c_{10}	$u^{175} - 14u^{174} + \dots + 444875u - 24751$
c_8	$u^{175} - 3u^{174} + \dots - 3228u - 745$
c_9	$u^{175} - u^{174} + \dots - 1852932u - 499117$
c_{11}	$u^{175} + 13u^{174} + \dots - 2u + 97$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{175} + 28y^{174} + \dots - 85299694583841y - 1556727840721$
c_2, c_6	$y^{175} + 84y^{174} + \dots - 21510473y - 1247689$
c_3	$y^{175} - 37y^{174} + \dots + 10887680210935327y - 210024643419529$
c_4, c_{12}	$y^{175} - 127y^{174} + \dots - 180y - 1$
c_5	$y^{175} + 27y^{174} + \dots + 136692045245606196y - 7679542513734001$
c_7, c_{10}	$y^{175} + 94y^{174} + \dots - 17564282207y - 612612001$
c_8	$y^{175} - 29y^{174} + \dots + 14232894y - 555025$
c_9	$y^{175} + 29y^{174} + \dots - 22256433571302y - 249117779689$
c_{11}	$y^{175} - 27y^{174} + \dots + 580452y - 9409$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.325956 + 0.949466I$ $a = -2.60340 + 1.92275I$ $b = 0.005403 - 0.767784I$	$1.58192 - 4.67301I$	0
$u = 0.325956 - 0.949466I$ $a = -2.60340 - 1.92275I$ $b = 0.005403 + 0.767784I$	$1.58192 + 4.67301I$	0
$u = -0.987821 + 0.189772I$ $a = -0.326720 - 0.404313I$ $b = -0.347434 - 1.012110I$	$-0.65552 + 1.79433I$	0
$u = -0.987821 - 0.189772I$ $a = -0.326720 + 0.404313I$ $b = -0.347434 + 1.012110I$	$-0.65552 - 1.79433I$	0
$u = -0.364947 + 0.924553I$ $a = -1.54353 - 1.00452I$ $b = -0.452814 - 0.602040I$	$-2.29353 - 2.27823I$	0
$u = -0.364947 - 0.924553I$ $a = -1.54353 + 1.00452I$ $b = -0.452814 + 0.602040I$	$-2.29353 + 2.27823I$	0
$u = -0.813844 + 0.565118I$ $a = -0.413123 - 1.262400I$ $b = -0.701528 - 1.210640I$	$2.87174 + 4.67293I$	0
$u = -0.813844 - 0.565118I$ $a = -0.413123 + 1.262400I$ $b = -0.701528 + 1.210640I$	$2.87174 - 4.67293I$	0
$u = -0.958683 + 0.245748I$ $a = 1.142750 + 0.622428I$ $b = 0.609432 + 0.907836I$	$3.30252 + 1.79502I$	0
$u = -0.958683 - 0.245748I$ $a = 1.142750 - 0.622428I$ $b = 0.609432 - 0.907836I$	$3.30252 - 1.79502I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.271679 + 0.975980I$ $a = -1.59863 + 1.69105I$ $b = -0.043481 + 0.141822I$	$1.68466 + 6.98103I$	0
$u = 0.271679 - 0.975980I$ $a = -1.59863 - 1.69105I$ $b = -0.043481 - 0.141822I$	$1.68466 - 6.98103I$	0
$u = -0.249223 + 0.951198I$ $a = 0.022733 - 1.350770I$ $b = -0.090871 + 1.315720I$	$-4.79455 - 2.50479I$	0
$u = -0.249223 - 0.951198I$ $a = 0.022733 + 1.350770I$ $b = -0.090871 - 1.315720I$	$-4.79455 + 2.50479I$	0
$u = -0.950176 + 0.364365I$ $a = 0.941037 + 0.799797I$ $b = 0.670816 + 1.243370I$	$3.1539 + 14.7991I$	0
$u = -0.950176 - 0.364365I$ $a = 0.941037 - 0.799797I$ $b = 0.670816 - 1.243370I$	$3.1539 - 14.7991I$	0
$u = -0.355020 + 0.959098I$ $a = -0.194170 + 1.160960I$ $b = -0.273227 - 1.323650I$	$-5.19352 + 0.07694I$	0
$u = -0.355020 - 0.959098I$ $a = -0.194170 - 1.160960I$ $b = -0.273227 + 1.323650I$	$-5.19352 - 0.07694I$	0
$u = 0.407927 + 0.886173I$ $a = -0.729651 + 0.787225I$ $b = -0.927594 + 1.034960I$	$2.29763 - 1.16801I$	0
$u = 0.407927 - 0.886173I$ $a = -0.729651 - 0.787225I$ $b = -0.927594 - 1.034960I$	$2.29763 + 1.16801I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.143310 + 1.014600I$ $a = 0.543110 - 0.814198I$ $b = -0.230486 + 1.383780I$	$-5.13023 - 2.18375I$	0
$u = 0.143310 - 1.014600I$ $a = 0.543110 + 0.814198I$ $b = -0.230486 - 1.383780I$	$-5.13023 + 2.18375I$	0
$u = 0.961868 + 0.363103I$ $a = 0.933450 - 0.715334I$ $b = 0.588144 - 1.160490I$	$-1.48419 - 8.82684I$	0
$u = 0.961868 - 0.363103I$ $a = 0.933450 + 0.715334I$ $b = 0.588144 + 1.160490I$	$-1.48419 + 8.82684I$	0
$u = 0.414434 + 0.874408I$ $a = -1.80192 + 1.45961I$ $b = -0.658138 - 1.119250I$	$2.31978 + 4.58023I$	0
$u = 0.414434 - 0.874408I$ $a = -1.80192 - 1.45961I$ $b = -0.658138 + 1.119250I$	$2.31978 - 4.58023I$	0
$u = -0.902569 + 0.345482I$ $a = 1.55696 - 0.21348I$ $b = 0.665240 - 0.822100I$	$3.57840 - 3.20414I$	0
$u = -0.902569 - 0.345482I$ $a = 1.55696 + 0.21348I$ $b = 0.665240 + 0.822100I$	$3.57840 + 3.20414I$	0
$u = -0.356050 + 0.898168I$ $a = -2.25572 - 2.08663I$ $b = -0.218914 + 0.896821I$	$-2.18994 - 0.67486I$	0
$u = -0.356050 - 0.898168I$ $a = -2.25572 + 2.08663I$ $b = -0.218914 - 0.896821I$	$-2.18994 + 0.67486I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.680433 + 0.677818I$ $a = -0.572994 + 1.149020I$ $b = -0.839860 + 0.269339I$	$4.68042 - 0.92261I$	0
$u = 0.680433 - 0.677818I$ $a = -0.572994 - 1.149020I$ $b = -0.839860 - 0.269339I$	$4.68042 + 0.92261I$	0
$u = -0.568795 + 0.764886I$ $a = -1.41968 - 1.20891I$ $b = -1.273990 + 0.431196I$	$5.45673 - 2.09442I$	0
$u = -0.568795 - 0.764886I$ $a = -1.41968 + 1.20891I$ $b = -1.273990 - 0.431196I$	$5.45673 + 2.09442I$	0
$u = 0.958711 + 0.434750I$ $a = -0.255889 + 0.807548I$ $b = -0.417655 + 1.259020I$	$0.23870 - 5.12314I$	0
$u = 0.958711 - 0.434750I$ $a = -0.255889 - 0.807548I$ $b = -0.417655 - 1.259020I$	$0.23870 + 5.12314I$	0
$u = -0.518573 + 0.917086I$ $a = -1.07979 - 1.09258I$ $b = -1.56419 - 0.26869I$	$4.99730 - 2.25058I$	0
$u = -0.518573 - 0.917086I$ $a = -1.07979 + 1.09258I$ $b = -1.56419 + 0.26869I$	$4.99730 + 2.25058I$	0
$u = -0.273045 + 1.019310I$ $a = 0.570187 + 0.122249I$ $b = 0.303173 + 0.378363I$	$-1.17420 - 2.79461I$	0
$u = -0.273045 - 1.019310I$ $a = 0.570187 - 0.122249I$ $b = 0.303173 - 0.378363I$	$-1.17420 + 2.79461I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.148278 + 1.051400I$	$-3.85938 - 1.61276I$	0
$a = 0.608011 - 0.731055I$		
$b = 0.688728 - 0.200996I$		
$u = 0.148278 - 1.051400I$	$-3.85938 + 1.61276I$	0
$a = 0.608011 + 0.731055I$		
$b = 0.688728 + 0.200996I$		
$u = -0.155373 + 1.052830I$	$1.04897 + 6.48994I$	0
$a = 0.611196 + 1.200530I$		
$b = 0.945554 + 0.107943I$		
$u = -0.155373 - 1.052830I$	$1.04897 - 6.48994I$	0
$a = 0.611196 - 1.200530I$		
$b = 0.945554 - 0.107943I$		
$u = -0.761759 + 0.541233I$	$1.31816 - 0.63282I$	0
$a = 0.849597 - 0.002654I$		
$b = 0.399416 + 0.813177I$		
$u = -0.761759 - 0.541233I$	$1.31816 + 0.63282I$	0
$a = 0.849597 + 0.002654I$		
$b = 0.399416 - 0.813177I$		
$u = 0.820029 + 0.709079I$	$6.25198 - 1.81788I$	0
$a = 0.910069 + 0.628289I$		
$b = 0.444111 + 0.577934I$		
$u = 0.820029 - 0.709079I$	$6.25198 + 1.81788I$	0
$a = 0.910069 - 0.628289I$		
$b = 0.444111 - 0.577934I$		
$u = 0.322487 + 1.039360I$	$-4.22651 - 3.50011I$	0
$a = 0.511525 - 1.204290I$		
$b = -0.27949 + 1.45121I$		
$u = 0.322487 - 1.039360I$	$-4.22651 + 3.50011I$	0
$a = 0.511525 + 1.204290I$		
$b = -0.27949 - 1.45121I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.496814 + 0.970984I$ $a = -0.796063 + 1.124390I$ $b = -1.278770 + 0.259072I$	$1.41529 + 2.64820I$	0
$u = 0.496814 - 0.970984I$ $a = -0.796063 - 1.124390I$ $b = -1.278770 - 0.259072I$	$1.41529 - 2.64820I$	0
$u = 0.751149 + 0.508223I$ $a = 0.749854 + 0.217362I$ $b = 0.613536 - 0.689882I$	$6.29900 + 5.67352I$	0
$u = 0.751149 - 0.508223I$ $a = 0.749854 - 0.217362I$ $b = 0.613536 + 0.689882I$	$6.29900 - 5.67352I$	0
$u = -0.426630 + 1.022100I$ $a = -0.973462 - 0.343443I$ $b = 0.11014 + 1.71170I$	$-3.59033 - 7.63415I$	0
$u = -0.426630 - 1.022100I$ $a = -0.973462 + 0.343443I$ $b = 0.11014 - 1.71170I$	$-3.59033 + 7.63415I$	0
$u = -0.658238 + 0.588206I$ $a = -0.478003 - 0.070068I$ $b = -0.426802 + 0.496050I$	$0.68565 - 1.44589I$	0
$u = -0.658238 - 0.588206I$ $a = -0.478003 + 0.070068I$ $b = -0.426802 - 0.496050I$	$0.68565 + 1.44589I$	0
$u = -0.495890 + 1.002680I$ $a = -0.60282 - 1.54683I$ $b = -1.49918 - 0.22333I$	$4.62733 - 2.83690I$	0
$u = -0.495890 - 1.002680I$ $a = -0.60282 + 1.54683I$ $b = -1.49918 + 0.22333I$	$4.62733 + 2.83690I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.765897 + 0.432538I$ $a = 1.71158 + 0.31154I$ $b = 1.116070 - 0.385780I$	$5.91294 + 8.43978I$	0
$u = -0.765897 - 0.432538I$ $a = 1.71158 - 0.31154I$ $b = 1.116070 + 0.385780I$	$5.91294 - 8.43978I$	0
$u = 0.760598 + 0.439737I$ $a = 1.54975 - 0.23049I$ $b = 0.848605 + 0.347580I$	$0.98319 - 3.49570I$	0
$u = 0.760598 - 0.439737I$ $a = 1.54975 + 0.23049I$ $b = 0.848605 - 0.347580I$	$0.98319 + 3.49570I$	0
$u = 0.766928 + 0.416428I$ $a = -0.719294 + 0.979594I$ $b = -0.552496 + 1.202390I$	$-0.25620 - 4.09535I$	0
$u = 0.766928 - 0.416428I$ $a = -0.719294 - 0.979594I$ $b = -0.552496 - 1.202390I$	$-0.25620 + 4.09535I$	0
$u = -0.796033 + 0.338196I$ $a = 0.381984 + 0.564663I$ $b = -0.083477 + 0.949279I$	$-0.144602 - 0.552072I$	0
$u = -0.796033 - 0.338196I$ $a = 0.381984 - 0.564663I$ $b = -0.083477 - 0.949279I$	$-0.144602 + 0.552072I$	0
$u = 0.667731 + 0.541222I$ $a = 1.079430 + 0.339682I$ $b = 0.472468 - 0.994102I$	$4.96437 - 5.68893I$	0
$u = 0.667731 - 0.541222I$ $a = 1.079430 - 0.339682I$ $b = 0.472468 + 0.994102I$	$4.96437 + 5.68893I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.594857 + 0.974758I$ $a = -1.295740 + 0.259836I$ $b = -1.082400 - 0.484273I$	$3.76035 + 5.86797I$	0
$u = 0.594857 - 0.974758I$ $a = -1.295740 - 0.259836I$ $b = -1.082400 + 0.484273I$	$3.76035 - 5.86797I$	0
$u = 0.402021 + 1.069680I$ $a = -0.514803 + 0.273745I$ $b = 0.24583 - 1.45429I$	$-6.87012 + 3.96919I$	0
$u = 0.402021 - 1.069680I$ $a = -0.514803 - 0.273745I$ $b = 0.24583 + 1.45429I$	$-6.87012 - 3.96919I$	0
$u = 0.503163 + 1.027550I$ $a = 0.247457 + 0.752143I$ $b = -0.934020 + 0.706950I$	$2.67225 + 0.27392I$	0
$u = 0.503163 - 1.027550I$ $a = 0.247457 - 0.752143I$ $b = -0.934020 - 0.706950I$	$2.67225 - 0.27392I$	0
$u = -0.455220 + 1.053460I$ $a = 1.94394 + 0.24485I$ $b = 0.37972 - 1.37114I$	$-3.32146 + 1.11549I$	0
$u = -0.455220 - 1.053460I$ $a = 1.94394 - 0.24485I$ $b = 0.37972 + 1.37114I$	$-3.32146 - 1.11549I$	0
$u = -0.269551 + 1.116900I$ $a = 0.810587 + 0.735572I$ $b = -0.442477 - 1.279560I$	$-1.29673 + 2.79738I$	0
$u = -0.269551 - 1.116900I$ $a = 0.810587 - 0.735572I$ $b = -0.442477 + 1.279560I$	$-1.29673 - 2.79738I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.246138 + 1.124620I$ $a = 0.255257 + 0.807824I$ $b = -0.185139 - 1.202140I$	$-3.53226 + 4.39070I$	0
$u = 0.246138 - 1.124620I$ $a = 0.255257 - 0.807824I$ $b = -0.185139 + 1.202140I$	$-3.53226 - 4.39070I$	0
$u = -0.559059 + 1.010450I$ $a = -2.41585 + 0.25340I$ $b = -0.398085 + 1.054620I$	$-3.72966 - 5.79595I$	0
$u = -0.559059 - 1.010450I$ $a = -2.41585 - 0.25340I$ $b = -0.398085 - 1.054620I$	$-3.72966 + 5.79595I$	0
$u = 0.803976 + 0.238232I$ $a = 0.433329 - 0.554170I$ $b = -0.284435 - 0.859679I$	$0.97451 + 1.31302I$	0
$u = 0.803976 - 0.238232I$ $a = 0.433329 + 0.554170I$ $b = -0.284435 + 0.859679I$	$0.97451 - 1.31302I$	0
$u = 0.509321 + 0.664565I$ $a = -1.65235 + 0.68133I$ $b = -1.014050 - 0.435231I$	$2.36501 + 1.47315I$	0
$u = 0.509321 - 0.664565I$ $a = -1.65235 - 0.68133I$ $b = -1.014050 + 0.435231I$	$2.36501 - 1.47315I$	0
$u = -0.575736 + 0.603125I$ $a = -0.76919 - 2.05804I$ $b = -0.228343 - 0.973153I$	$-2.47835 + 1.22081I$	0
$u = -0.575736 - 0.603125I$ $a = -0.76919 + 2.05804I$ $b = -0.228343 + 0.973153I$	$-2.47835 - 1.22081I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.566197 + 1.022380I$ $a = -0.401563 - 0.132568I$ $b = -0.681159 - 0.132368I$	$-0.66270 - 3.30582I$	0
$u = -0.566197 - 1.022380I$ $a = -0.401563 + 0.132568I$ $b = -0.681159 + 0.132368I$	$-0.66270 + 3.30582I$	0
$u = -0.858863 + 0.793976I$ $a = 1.035520 - 0.355962I$ $b = 0.381527 - 0.787545I$	$1.42313 - 4.08662I$	0
$u = -0.858863 - 0.793976I$ $a = 1.035520 + 0.355962I$ $b = 0.381527 + 0.787545I$	$1.42313 + 4.08662I$	0
$u = -0.759389 + 0.895606I$ $a = 0.231638 + 0.618251I$ $b = 0.257803 + 0.627572I$	$1.10685 - 1.89670I$	0
$u = -0.759389 - 0.895606I$ $a = 0.231638 - 0.618251I$ $b = 0.257803 - 0.627572I$	$1.10685 + 1.89670I$	0
$u = 0.449251 + 1.088340I$ $a = 1.82740 - 0.47237I$ $b = 0.545522 + 1.176210I$	$-6.52018 + 3.15690I$	0
$u = 0.449251 - 1.088340I$ $a = 1.82740 + 0.47237I$ $b = 0.545522 - 1.176210I$	$-6.52018 - 3.15690I$	0
$u = -0.218588 + 0.792950I$ $a = 0.876250 + 0.366706I$ $b = -0.24118 - 1.62448I$	$-2.29717 + 4.70301I$	0
$u = -0.218588 - 0.792950I$ $a = 0.876250 - 0.366706I$ $b = -0.24118 + 1.62448I$	$-2.29717 - 4.70301I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.179211 + 0.801413I$		
$a = 1.332670 - 0.064493I$	$2.10855 - 0.54428I$	0
$b = -0.458872 + 0.301069I$		
$u = 0.179211 - 0.801413I$		
$a = 1.332670 + 0.064493I$	$2.10855 + 0.54428I$	0
$b = -0.458872 - 0.301069I$		
$u = 0.576339 + 1.036900I$		
$a = 1.54726 - 1.44567I$	$3.47285 + 10.53450I$	0
$b = 0.334840 + 1.105570I$		
$u = 0.576339 - 1.036900I$		
$a = 1.54726 + 1.44567I$	$3.47285 - 10.53450I$	0
$b = 0.334840 - 1.105570I$		
$u = 0.546083 + 1.060290I$		
$a = -2.38013 + 0.42911I$	$-2.67849 + 10.16570I$	0
$b = -0.433506 - 1.312240I$		
$u = 0.546083 - 1.060290I$		
$a = -2.38013 - 0.42911I$	$-2.67849 - 10.16570I$	0
$b = -0.433506 + 1.312240I$		
$u = -0.605895 + 1.028620I$		
$a = 1.62777 + 0.94825I$	$-0.12086 - 4.53150I$	0
$b = 0.298703 - 1.009030I$		
$u = -0.605895 - 1.028620I$		
$a = 1.62777 - 0.94825I$	$-0.12086 + 4.53150I$	0
$b = 0.298703 + 1.009030I$		
$u = 0.919248 + 0.773367I$		
$a = 0.863423 + 0.408281I$	$5.76777 + 9.94226I$	0
$b = 0.460087 + 0.883218I$		
$u = 0.919248 - 0.773367I$		
$a = 0.863423 - 0.408281I$	$5.76777 - 9.94226I$	0
$b = 0.460087 - 0.883218I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.558362 + 0.562107I$ $a = -1.348790 - 0.413307I$ $b = -0.849932 - 0.932238I$	$4.07234 + 3.99322I$	0
$u = 0.558362 - 0.562107I$ $a = -1.348790 + 0.413307I$ $b = -0.849932 + 0.932238I$	$4.07234 - 3.99322I$	0
$u = -0.720684 + 0.323222I$ $a = -1.026560 - 0.737859I$ $b = -0.72078 - 1.27260I$	$2.94140 + 5.54948I$	0
$u = -0.720684 - 0.323222I$ $a = -1.026560 + 0.737859I$ $b = -0.72078 + 1.27260I$	$2.94140 - 5.54948I$	0
$u = 0.466862 + 1.125240I$ $a = -1.14857 + 1.28762I$ $b = -0.792186 - 0.704403I$	$2.58142 + 6.54092I$	0
$u = 0.466862 - 1.125240I$ $a = -1.14857 - 1.28762I$ $b = -0.792186 + 0.704403I$	$2.58142 - 6.54092I$	0
$u = 0.624112 + 1.051420I$ $a = 1.10605 - 0.93099I$ $b = 0.388091 + 0.899336I$	$4.68913 - 0.45476I$	0
$u = 0.624112 - 1.051420I$ $a = 1.10605 + 0.93099I$ $b = 0.388091 - 0.899336I$	$4.68913 + 0.45476I$	0
$u = -0.526396 + 0.561216I$ $a = -1.86509 - 0.25062I$ $b = -1.257360 + 0.359860I$	$5.92930 - 1.34148I$	0
$u = -0.526396 - 0.561216I$ $a = -1.86509 + 0.25062I$ $b = -1.257360 - 0.359860I$	$5.92930 + 1.34148I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.734683 + 0.987861I$		
$a = -0.050324 - 0.915854I$	$5.41367 + 7.62668I$	0
$b = 0.315532 - 0.525973I$		
$u = 0.734683 - 0.987861I$		
$a = -0.050324 + 0.915854I$	$5.41367 - 7.62668I$	0
$b = 0.315532 + 0.525973I$		
$u = -0.645692 + 1.059480I$		
$a = -1.78732 - 0.20482I$	$1.34897 - 10.14670I$	0
$b = -0.78428 + 1.37915I$		
$u = -0.645692 - 1.059480I$		
$a = -1.78732 + 0.20482I$	$1.34897 + 10.14670I$	0
$b = -0.78428 - 1.37915I$		
$u = -0.558326 + 1.110590I$		
$a = 1.63188 + 0.24669I$	$-2.43708 - 4.43907I$	0
$b = 0.127459 - 0.998161I$		
$u = -0.558326 - 1.110590I$		
$a = 1.63188 - 0.24669I$	$-2.43708 + 4.43907I$	0
$b = 0.127459 + 0.998161I$		
$u = -0.386158 + 1.183130I$		
$a = 1.53230 + 0.80555I$	$-0.97659 - 7.06232I$	0
$b = 0.754290 - 0.873124I$		
$u = -0.386158 - 1.183130I$		
$a = 1.53230 - 0.80555I$	$-0.97659 + 7.06232I$	0
$b = 0.754290 + 0.873124I$		
$u = 0.598716 + 1.091230I$		
$a = 0.741163 - 0.769460I$	$-0.95123 + 8.64684I$	0
$b = 1.048400 - 0.267201I$		
$u = 0.598716 - 1.091230I$		
$a = 0.741163 + 0.769460I$	$-0.95123 - 8.64684I$	0
$b = 1.048400 + 0.267201I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.591098 + 1.097700I$ $a = -1.85741 + 0.49004I$ $b = -0.61582 - 1.34571I$	$-2.27551 + 9.22283I$	0
$u = 0.591098 - 1.097700I$ $a = -1.85741 - 0.49004I$ $b = -0.61582 + 1.34571I$	$-2.27551 - 9.22283I$	0
$u = -0.555456 + 1.117940I$ $a = -1.87785 - 0.92689I$ $b = -0.72380 + 1.41438I$	$0.63511 - 10.41790I$	0
$u = -0.555456 - 1.117940I$ $a = -1.87785 + 0.92689I$ $b = -0.72380 - 1.41438I$	$0.63511 + 10.41790I$	0
$u = -0.598964 + 1.095590I$ $a = 0.703315 + 0.946528I$ $b = 1.297040 + 0.315015I$	$3.9446 - 13.6046I$	0
$u = -0.598964 - 1.095590I$ $a = 0.703315 - 0.946528I$ $b = 1.297040 - 0.315015I$	$3.9446 + 13.6046I$	0
$u = -0.308397 + 1.213650I$ $a = 0.0617268 - 0.1019490I$ $b = 0.451809 + 0.980520I$	$-1.50068 - 2.16308I$	0
$u = -0.308397 - 1.213650I$ $a = 0.0617268 + 0.1019490I$ $b = 0.451809 - 0.980520I$	$-1.50068 + 2.16308I$	0
$u = 0.529809 + 1.139950I$ $a = 1.53069 - 0.12486I$ $b = -0.026059 + 0.793127I$	$-1.70649 + 3.54591I$	0
$u = 0.529809 - 1.139950I$ $a = 1.53069 + 0.12486I$ $b = -0.026059 - 0.793127I$	$-1.70649 - 3.54591I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.075390 + 1.273190I$ $a = 0.340398 - 0.675235I$ $b = -0.102613 + 1.238680I$	$-6.07274 - 2.25115I$	0
$u = 0.075390 - 1.273190I$ $a = 0.340398 + 0.675235I$ $b = -0.102613 - 1.238680I$	$-6.07274 + 2.25115I$	0
$u = 0.567731 + 0.443149I$ $a = -1.27593 + 1.43039I$ $b = -0.292054 + 1.241830I$	$-0.89122 - 5.63124I$	0
$u = 0.567731 - 0.443149I$ $a = -1.27593 - 1.43039I$ $b = -0.292054 - 1.241830I$	$-0.89122 + 5.63124I$	0
$u = -0.679466 + 1.096420I$ $a = 0.559580 + 0.487472I$ $b = 0.668454 + 0.637480I$	$1.41704 - 2.60645I$	0
$u = -0.679466 - 1.096420I$ $a = 0.559580 - 0.487472I$ $b = 0.668454 - 0.637480I$	$1.41704 + 2.60645I$	0
$u = 0.886631 + 0.953977I$ $a = -0.134430 - 0.539825I$ $b = 0.269339 - 0.777930I$	$5.26370 - 3.43300I$	0
$u = 0.886631 - 0.953977I$ $a = -0.134430 + 0.539825I$ $b = 0.269339 + 0.777930I$	$5.26370 + 3.43300I$	0
$u = 0.656274 + 1.164820I$ $a = -1.41021 + 0.29407I$ $b = -0.45392 - 1.40970I$	$-2.04067 + 11.00890I$	0
$u = 0.656274 - 1.164820I$ $a = -1.41021 - 0.29407I$ $b = -0.45392 + 1.40970I$	$-2.04067 - 11.00890I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.640315 + 1.181560I$ $a = 1.76448 + 0.55979I$ $b = 0.70592 - 1.33255I$	$0.6576 - 20.5856I$	0
$u = -0.640315 - 1.181560I$ $a = 1.76448 - 0.55979I$ $b = 0.70592 + 1.33255I$	$0.6576 + 20.5856I$	0
$u = -0.146827 + 1.336480I$ $a = -0.072758 - 0.483193I$ $b = 0.484983 + 1.240810I$	$-2.83020 + 11.27430I$	0
$u = -0.146827 - 1.336480I$ $a = -0.072758 + 0.483193I$ $b = 0.484983 - 1.240810I$	$-2.83020 - 11.27430I$	0
$u = 0.645400 + 1.184680I$ $a = 1.72120 - 0.50615I$ $b = 0.632692 + 1.251560I$	$-3.9939 + 14.6608I$	0
$u = 0.645400 - 1.184680I$ $a = 1.72120 + 0.50615I$ $b = 0.632692 - 1.251560I$	$-3.9939 - 14.6608I$	0
$u = 0.585627 + 0.273015I$ $a = -1.340080 + 0.036599I$ $b = -0.929285 + 0.570884I$	$5.04701 - 2.33430I$	$14.6697 + 3.6058I$
$u = 0.585627 - 0.273015I$ $a = -1.340080 - 0.036599I$ $b = -0.929285 - 0.570884I$	$5.04701 + 2.33430I$	$14.6697 - 3.6058I$
$u = -0.592121 + 1.220270I$ $a = -1.169560 - 0.573379I$ $b = -0.423759 + 1.185280I$	$-3.76157 - 7.38668I$	0
$u = -0.592121 - 1.220270I$ $a = -1.169560 + 0.573379I$ $b = -0.423759 - 1.185280I$	$-3.76157 + 7.38668I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.154588 + 1.371260I$ $a = 0.055089 + 0.485475I$ $b = 0.392112 - 1.157750I$	$-7.55406 - 5.15323I$	0
$u = 0.154588 - 1.371260I$ $a = 0.055089 - 0.485475I$ $b = 0.392112 + 1.157750I$	$-7.55406 + 5.15323I$	0
$u = -0.648359 + 1.241730I$ $a = 1.53087 + 0.47268I$ $b = 0.621845 - 1.012720I$	$0.28944 - 7.65428I$	0
$u = -0.648359 - 1.241730I$ $a = 1.53087 - 0.47268I$ $b = 0.621845 + 1.012720I$	$0.28944 + 7.65428I$	0
$u = -0.179217 + 1.400100I$ $a = 0.096298 - 0.947605I$ $b = 0.097648 + 0.784942I$	$-4.96897 - 3.19396I$	0
$u = -0.179217 - 1.400100I$ $a = 0.096298 + 0.947605I$ $b = 0.097648 - 0.784942I$	$-4.96897 + 3.19396I$	0
$u = 0.558960 + 0.126450I$ $a = 1.17289 - 1.54891I$ $b = 0.234299 - 1.114390I$	$-3.91368 + 0.73164I$	$-1.161521 - 0.793422I$
$u = 0.558960 - 0.126450I$ $a = 1.17289 + 1.54891I$ $b = 0.234299 + 1.114390I$	$-3.91368 - 0.73164I$	$-1.161521 + 0.793422I$
$u = -0.566382$ $a = 0.832786$ $b = -0.100616$	1.79126	5.72490
$u = -0.30720 + 1.43422I$ $a = 0.340251 + 0.401393I$ $b = -0.112925 - 1.033040I$	$-6.07518 - 2.94551I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.30720 - 1.43422I$ $a = 0.340251 - 0.401393I$ $b = -0.112925 + 1.033040I$	$-6.07518 + 2.94551I$	0
$u = -0.437946 + 0.278853I$ $a = 0.17874 + 2.26188I$ $b = 0.042219 + 1.282240I$	$-1.19734 - 4.89372I$	$4.41481 + 6.02885I$
$u = -0.437946 - 0.278853I$ $a = 0.17874 - 2.26188I$ $b = 0.042219 - 1.282240I$	$-1.19734 + 4.89372I$	$4.41481 - 6.02885I$
$u = -0.420408 + 0.235229I$ $a = 0.276055 - 0.729433I$ $b = -0.237874 + 0.329361I$	$0.471378 - 1.039480I$	$6.84675 + 6.48709I$
$u = -0.420408 - 0.235229I$ $a = 0.276055 + 0.729433I$ $b = -0.237874 - 0.329361I$	$0.471378 + 1.039480I$	$6.84675 - 6.48709I$

II.

$$I_2^u = \langle 8.83 \times 10^9 u^{43} + 2.85 \times 10^{10} u^{42} + \dots + 4.99 \times 10^9 b + 3.70 \times 10^{10}, 5.33 \times 10^{10} u^{43} - 1.40 \times 10^{11} u^{42} + \dots + 4.99 \times 10^9 a - 8.10 \times 10^{10}, u^{44} - u^{43} + \dots - 5u + 1 \rangle$$

(i) Arc colorings

$$\begin{aligned} a_2 &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_7 &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_6 &= \begin{pmatrix} 1 \\ u^2 \end{pmatrix} \\ a_3 &= \begin{pmatrix} u \\ u^3 + u \end{pmatrix} \\ a_{11} &= \begin{pmatrix} -10.6788u^{43} + 28.1001u^{42} + \dots - 103.108u + 16.2268 \\ -1.76980u^{43} - 5.71158u^{42} + \dots + 34.5415u - 7.41284 \end{pmatrix} \\ a_4 &= \begin{pmatrix} -26.0038u^{43} + 15.2796u^{42} + \dots + 131.350u - 31.6020 \\ 7.53241u^{43} - 1.10771u^{42} + \dots - 33.6298u + 7.29658 \end{pmatrix} \\ a_1 &= \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix} \\ a_{10} &= \begin{pmatrix} -8.90902u^{43} + 33.8117u^{42} + \dots - 137.649u + 23.6397 \\ -1.76980u^{43} - 5.71158u^{42} + \dots + 34.5415u - 7.41284 \end{pmatrix} \\ a_8 &= \begin{pmatrix} -17.8553u^{43} + 30.2134u^{42} + \dots - 26.4883u + 3.72155 \\ 9.24027u^{43} - 20.7299u^{42} + \dots + 66.3772u - 9.44318 \end{pmatrix} \\ a_5 &= \begin{pmatrix} 3.14764u^{43} + 17.2758u^{42} + \dots - 185.352u + 33.8212 \\ -14.3476u^{43} + 11.8548u^{42} + \dots + 35.6168u - 9.43295 \end{pmatrix} \\ a_9 &= \begin{pmatrix} -12.8155u^{43} + 22.0132u^{42} + \dots - 8.91018u + 1.63258 \\ 5.44390u^{43} - 15.5538u^{42} + \dots + 62.3290u - 9.34964 \end{pmatrix} \\ a_{12} &= \begin{pmatrix} -11.1592u^{43} + 40.9840u^{42} + \dots - 205.341u + 33.4786 \\ 23.4851u^{43} - 36.3767u^{42} + \dots + 44.9311u - 3.86733 \end{pmatrix} \end{aligned}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes

$$= -\frac{192849487866}{4990744411} u^{43} - \frac{83303496455}{4990744411} u^{42} + \dots + \frac{2009823972600}{4990744411} u - \frac{371947337450}{4990744411}$$

(iv) u -Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{44} - 25u^{43} + \dots - 11u + 1$
c_2	$u^{44} + u^{43} + \dots + 5u + 1$
c_3	$u^{44} - 4u^{42} + \dots + 23u + 25$
c_4	$u^{44} + 2u^{43} + \dots - 4u + 1$
c_5	$u^{44} - 2u^{43} + \dots + 74u + 25$
c_6	$u^{44} - u^{43} + \dots - 5u + 1$
c_7	$u^{44} + 15u^{43} + \dots + 7u + 1$
c_8	$u^{44} - 2u^{43} + \dots - 2u^2 + 1$
c_9	$u^{44} + 3u^{42} + \dots - 4u + 1$
c_{10}	$u^{44} - 15u^{43} + \dots - 7u + 1$
c_{11}	$u^{44} - 6u^{43} + \dots - 8u + 1$
c_{12}	$u^{44} - 2u^{43} + \dots + 4u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{44} + y^{43} + \dots + 11y + 1$
c_2, c_6	$y^{44} + 25y^{43} + \dots + 11y + 1$
c_3	$y^{44} - 8y^{43} + \dots - 3629y + 625$
c_4, c_{12}	$y^{44} - 34y^{43} + \dots - 14y + 1$
c_5	$y^{44} - 4y^{43} + \dots + 3274y + 625$
c_7, c_{10}	$y^{44} + 23y^{43} + \dots + 37y + 1$
c_8	$y^{44} - 16y^{43} + \dots - 4y + 1$
c_9	$y^{44} + 6y^{43} + \dots + 24y + 1$
c_{11}	$y^{44} - 18y^{43} + \dots + 14y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.308157 + 0.987633I$ $a = 1.16862 + 0.93312I$ $b = -0.21599 - 1.57354I$	$-3.22606 + 3.75156I$	$2.55999 - 3.15479I$
$u = -0.308157 - 0.987633I$ $a = 1.16862 - 0.93312I$ $b = -0.21599 + 1.57354I$	$-3.22606 - 3.75156I$	$2.55999 + 3.15479I$
$u = 0.315393 + 1.002290I$ $a = 0.311564 + 0.823089I$ $b = 0.000777 - 1.252100I$	$-5.29368 + 3.15763I$	$-4.09773 - 5.41114I$
$u = 0.315393 - 1.002290I$ $a = 0.311564 - 0.823089I$ $b = 0.000777 + 1.252100I$	$-5.29368 - 3.15763I$	$-4.09773 + 5.41114I$
$u = -0.811207 + 0.489422I$ $a = -0.380863 - 0.948948I$ $b = -0.463995 - 1.292540I$	$0.95609 + 4.94263I$	$8.91748 - 4.91019I$
$u = -0.811207 - 0.489422I$ $a = -0.380863 + 0.948948I$ $b = -0.463995 + 1.292540I$	$0.95609 - 4.94263I$	$8.91748 + 4.91019I$
$u = 0.551995 + 0.918179I$ $a = -0.824676 + 0.819111I$ $b = -0.947684 + 0.175996I$	$1.74529 + 2.25308I$	$7.16464 + 0.I$
$u = 0.551995 - 0.918179I$ $a = -0.824676 - 0.819111I$ $b = -0.947684 - 0.175996I$	$1.74529 - 2.25308I$	$7.16464 + 0.I$
$u = -0.305558 + 1.034290I$ $a = 1.91005 + 2.16726I$ $b = 0.351249 - 0.651952I$	$1.37900 - 7.60672I$	$0.66870 + 12.81699I$
$u = -0.305558 - 1.034290I$ $a = 1.91005 - 2.16726I$ $b = 0.351249 + 0.651952I$	$1.37900 + 7.60672I$	$0.66870 - 12.81699I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.245789 + 0.884474I$ $a = 0.27791 - 1.69712I$ $b = -0.163334 + 1.324920I$	$-4.74341 - 0.88044I$	$0.889226 + 0.400447I$
$u = 0.245789 - 0.884474I$ $a = 0.27791 + 1.69712I$ $b = -0.163334 - 1.324920I$	$-4.74341 + 0.88044I$	$0.889226 - 0.400447I$
$u = -0.213057 + 0.880428I$ $a = -0.212781 - 0.099889I$ $b = -0.06661 + 1.47962I$	$-2.65962 - 5.94295I$	$2.31883 + 8.60007I$
$u = -0.213057 - 0.880428I$ $a = -0.212781 + 0.099889I$ $b = -0.06661 - 1.47962I$	$-2.65962 + 5.94295I$	$2.31883 - 8.60007I$
$u = -0.479059 + 0.997167I$ $a = -0.81176 - 1.41693I$ $b = -1.60442 - 0.17277I$	$4.08940 - 2.90277I$	$0. + 6.41959I$
$u = -0.479059 - 0.997167I$ $a = -0.81176 + 1.41693I$ $b = -1.60442 + 0.17277I$	$4.08940 + 2.90277I$	$0. - 6.41959I$
$u = 0.871285 + 0.183068I$ $a = 0.295474 - 0.420513I$ $b = -0.143959 - 0.917305I$	$-0.837506 + 0.694451I$	$-3.73124 + 0.53910I$
$u = 0.871285 - 0.183068I$ $a = 0.295474 + 0.420513I$ $b = -0.143959 + 0.917305I$	$-0.837506 - 0.694451I$	$-3.73124 - 0.53910I$
$u = -0.273129 + 0.795130I$ $a = 2.32282 + 2.13261I$ $b = 0.379363 + 0.497324I$	$2.30016 + 5.13733I$	$8.82905 - 4.63431I$
$u = -0.273129 - 0.795130I$ $a = 2.32282 - 2.13261I$ $b = 0.379363 - 0.497324I$	$2.30016 - 5.13733I$	$8.82905 + 4.63431I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.735552 + 0.903542I$ $a = -0.218764 - 0.441825I$ $b = 0.130785 - 0.413943I$	$5.21381 - 8.37867I$	$4.00000 + 9.26873I$
$u = -0.735552 - 0.903542I$ $a = -0.218764 + 0.441825I$ $b = 0.130785 + 0.413943I$	$5.21381 + 8.37867I$	$4.00000 - 9.26873I$
$u = -0.811075 + 0.857875I$ $a = -0.699674 + 0.182942I$ $b = 0.031035 + 0.488766I$	$5.38331 + 2.57251I$	0
$u = -0.811075 - 0.857875I$ $a = -0.699674 - 0.182942I$ $b = 0.031035 - 0.488766I$	$5.38331 - 2.57251I$	0
$u = -0.451124 + 0.667034I$ $a = -1.54989 - 1.13540I$ $b = -1.362930 + 0.228015I$	$5.20489 - 0.98576I$	$8.15267 - 3.45564I$
$u = -0.451124 - 0.667034I$ $a = -1.54989 + 1.13540I$ $b = -1.362930 - 0.228015I$	$5.20489 + 0.98576I$	$8.15267 + 3.45564I$
$u = 0.696382 + 0.971335I$ $a = -0.641482 + 0.568672I$ $b = -0.567542 + 0.498560I$	$1.56607 + 2.26987I$	$14.6992 + 0.I$
$u = 0.696382 - 0.971335I$ $a = -0.641482 - 0.568672I$ $b = -0.567542 - 0.498560I$	$1.56607 - 2.26987I$	$14.6992 + 0.I$
$u = 0.515589 + 1.093630I$ $a = 1.82107 - 0.24845I$ $b = 0.124563 + 0.868536I$	$-3.57585 + 3.87439I$	0
$u = 0.515589 - 1.093630I$ $a = 1.82107 + 0.24845I$ $b = 0.124563 - 0.868536I$	$-3.57585 - 3.87439I$	0

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.597100 + 1.089810I$ $a = -1.82849 - 0.46447I$ $b = -0.52934 + 1.45945I$	$-0.90931 - 10.19890I$	0
$u = -0.597100 - 1.089810I$ $a = -1.82849 + 0.46447I$ $b = -0.52934 - 1.45945I$	$-0.90931 + 10.19890I$	0
$u = 0.311016 + 0.625703I$ $a = 1.82403 - 1.95875I$ $b = -0.015549 - 0.613118I$	$-1.52816 - 0.17234I$	$4.03079 + 1.10747I$
$u = 0.311016 - 0.625703I$ $a = 1.82403 + 1.95875I$ $b = -0.015549 + 0.613118I$	$-1.52816 + 0.17234I$	$4.03079 - 1.10747I$
$u = 0.572521 + 0.394365I$ $a = -1.97593 + 0.06581I$ $b = -0.771844 - 0.836458I$	$3.15409 + 2.92855I$	$6.03002 - 2.32219I$
$u = 0.572521 - 0.394365I$ $a = -1.97593 - 0.06581I$ $b = -0.771844 + 0.836458I$	$3.15409 - 2.92855I$	$6.03002 + 2.32219I$
$u = 0.580346 + 1.200560I$ $a = -1.58115 + 0.56532I$ $b = -0.672883 - 1.046750I$	$-0.04185 + 7.52820I$	0
$u = 0.580346 - 1.200560I$ $a = -1.58115 - 0.56532I$ $b = -0.672883 + 1.046750I$	$-0.04185 - 7.52820I$	0
$u = 0.150514 + 1.352220I$ $a = -0.157281 + 0.557104I$ $b = -0.129821 - 1.126760I$	$-6.27108 + 4.02109I$	0
$u = 0.150514 - 1.352220I$ $a = -0.157281 - 0.557104I$ $b = -0.129821 + 1.126760I$	$-6.27108 - 4.02109I$	0

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.220429 + 1.392290I$ $a = 0.109335 - 0.963032I$ $b = -0.116262 + 0.796153I$	$-4.95880 + 2.98569I$	0
$u = 0.220429 - 1.392290I$ $a = 0.109335 + 0.963032I$ $b = -0.116262 - 0.796153I$	$-4.95880 - 2.98569I$	0
$u = 0.453757 + 0.195053I$ $a = -1.65813 + 1.80893I$ $b = -0.745603 + 0.882162I$	$3.05324 - 2.78726I$	$8.38024 + 3.32043I$
$u = 0.453757 - 0.195053I$ $a = -1.65813 - 1.80893I$ $b = -0.745603 - 0.882162I$	$3.05324 + 2.78726I$	$8.38024 - 3.32043I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{44} - 25u^{43} + \dots - 11u + 1)$ $\cdot (u^{175} + 84u^{174} + \dots - 21510473u - 1247689)$
c_2	$(u^{44} + u^{43} + \dots + 5u + 1)(u^{175} - 4u^{174} + \dots + 6175u - 1117)$
c_3	$(u^{44} - 4u^{42} + \dots + 23u + 25)$ $\cdot (u^{175} + 5u^{174} + \dots - 200903543u - 14492227)$
c_4	$(u^{44} + 2u^{43} + \dots - 4u + 1)(u^{175} + u^{174} + \dots + 38u - 1)$
c_5	$(u^{44} - 2u^{43} + \dots + 74u + 25)$ $\cdot (u^{175} - 9u^{174} + \dots + 1244051648u - 87632999)$
c_6	$(u^{44} - u^{43} + \dots - 5u + 1)(u^{175} - 4u^{174} + \dots + 6175u - 1117)$
c_7	$(u^{44} + 15u^{43} + \dots + 7u + 1)(u^{175} - 14u^{174} + \dots + 444875u - 24751)$
c_8	$(u^{44} - 2u^{43} + \dots - 2u^2 + 1)(u^{175} - 3u^{174} + \dots - 3228u - 745)$
c_9	$(u^{44} + 3u^{42} + \dots - 4u + 1)(u^{175} - u^{174} + \dots - 1852932u - 499117)$
c_{10}	$(u^{44} - 15u^{43} + \dots - 7u + 1)(u^{175} - 14u^{174} + \dots + 444875u - 24751)$
c_{11}	$(u^{44} - 6u^{43} + \dots - 8u + 1)(u^{175} + 13u^{174} + \dots - 2u + 97)$
c_{12}	$(u^{44} - 2u^{43} + \dots + 4u + 1)(u^{175} + u^{174} + \dots + 38u - 1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{44} + y^{43} + \dots + 11y + 1)$ $\cdot (y^{175} + 28y^{174} + \dots - 85299694583841y - 1556727840721)$
c_2, c_6	$(y^{44} + 25y^{43} + \dots + 11y + 1)$ $\cdot (y^{175} + 84y^{174} + \dots - 21510473y - 1247689)$
c_3	$(y^{44} - 8y^{43} + \dots - 3629y + 625)$ $\cdot (y^{175} - 37y^{174} + \dots + 10887680210935327y - 210024643419529)$
c_4, c_{12}	$(y^{44} - 34y^{43} + \dots - 14y + 1)(y^{175} - 127y^{174} + \dots - 180y - 1)$
c_5	$(y^{44} - 4y^{43} + \dots + 3274y + 625)$ $\cdot (y^{175} + 27y^{174} + \dots + 136692045245606196y - 7679542513734001)$
c_7, c_{10}	$(y^{44} + 23y^{43} + \dots + 37y + 1)$ $\cdot (y^{175} + 94y^{174} + \dots - 17564282207y - 612612001)$
c_8	$(y^{44} - 16y^{43} + \dots - 4y + 1)$ $\cdot (y^{175} - 29y^{174} + \dots + 14232894y - 555025)$
c_9	$(y^{44} + 6y^{43} + \dots + 24y + 1)$ $\cdot (y^{175} + 29y^{174} + \dots - 22256433571302y - 249117779689)$
c_{11}	$(y^{44} - 18y^{43} + \dots + 14y + 1)(y^{175} - 27y^{174} + \dots + 580452y - 9409)$