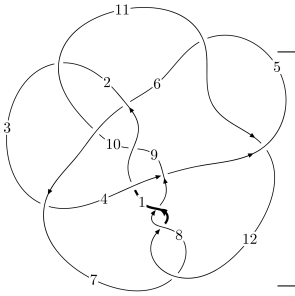
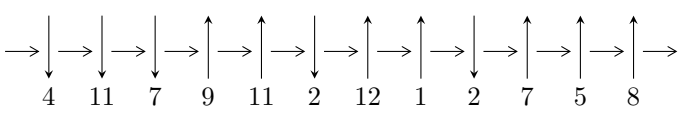
$12n_{0713}$ $(K12n_{0713})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 2.57826 \times 10^{217} u^{63} - 3.05321 \times 10^{217} u^{62} + \cdots + 2.05878 \times 10^{220} b - 1.16715 \times 10^{221},$$
$$1.17201 \times 10^{218} u^{63} + 2.06381 \times 10^{219} u^{62} + \cdots + 8.44100 \times 10^{221} a + 2.64039 \times 10^{222},$$
$$u^{64} + 38u^{62} + \cdots - 3396u + 328 \rangle$$

$$I_2^u = \langle -363987470832210 u^{18} + 225606528026540 u^{17} + \cdots + 4316043181765921 b - 66280635064865,$$
$$7.51222 \times 10^{15} u^{18} - 5.60654 \times 10^{15} u^{17} + \cdots + 3.88444 \times 10^{16} a + 1.80154 \times 10^{16},\ u^{19} - u^{18} + \cdots + 5u - 9 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 83 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. $\boldsymbol{I_1^u = \langle 2.58 \times 10^{217} u^{63} - 3.05 \times 10^{217} u^{62} + \cdots + 2.06 \times 10^{220} b - 1.17 \times 10^{221},\ 1.17 \times 10^{218} u^{63} + 2.06 \times 10^{219} u^{62} + \cdots + 8.44 \times 10^{221} a + 2.64 \times 10^{222},\ u^{64} + 38 u^{62} + \cdots - 3396 u + 328 \rangle}$

(i) Arc colorings

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

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

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

$$a_7 = \begin{pmatrix} -0.000138847u^{63} - 0.00244499u^{62} + \cdots + 21.3318u - 3.12805 \\ -0.00125233u^{63} + 0.00148302u^{62} + \cdots - 41.5747u + 5.66913 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.00791855u^{63} + 0.00212409u^{62} + \cdots - 118.662u + 14.1417 \\ -0.00457474u^{63} - 0.000971202u^{62} + \cdots - 26.4167u + 2.01978 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.0135367u^{63} - 0.00367954u^{62} + \cdots - 88.7259u + 10.0079 \\ -0.00159543u^{63} - 0.00175310u^{62} + \cdots + 22.4981u - 3.38442 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.00139117u^{63} - 0.000961969u^{62} + \cdots - 20.2429u + 2.54108 \\ -0.00125233u^{63} + 0.00148302u^{62} + \cdots - 41.5747u + 5.66913 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.00139117u^{63} - 0.000961969u^{62} + \cdots - 20.2429u + 2.54108 \\ -0.00238057u^{63} + 0.000801163u^{62} + \cdots - 44.3852u + 5.98465 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.0251528u^{63} + 0.00622070u^{62} + \cdots + 174.801u - 20.8026 \\ 0.000927416u^{63} + 0.000804470u^{62} + \cdots - 5.52337u + 0.525490 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.0230195u^{63} - 0.00337024u^{62} + \cdots - 204.054u + 24.8603 \\ -0.00135242u^{63} - 0.00130024u^{62} + \cdots + 10.8548u - 1.49184 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.0243719u^{63} - 0.00467049u^{62} + \cdots - 193.200u + 23.3684 \\ -0.00135242u^{63} - 0.00130024u^{62} + \cdots + 10.8548u - 1.49184 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.0159602u^{63} - 0.00446479u^{62} + \cdots - 111.349u + 13.1348 \\ -0.000210627u^{63} + 0.000910006u^{62} + \cdots - 23.7656u + 3.66319 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.0161918u^{63} - 0.00558987u^{62} + \cdots + 220.422u - 20.8374$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{64} - 7u^{63} + \cdots - 2062u + 473$
c_2	$u^{64} + 38u^{62} + \cdots + 3396u + 328$
c_3	$u^{64} - 3u^{63} + \cdots - 1741810u - 196291$
c_4	$u^{64} + 3u^{63} + \cdots - 160u - 64$
c_5, c_{11}	$u^{64} + 13u^{62} + \cdots - 400u + 44$
c_6	$u^{64} + u^{63} + \cdots + 6587u + 761$
c_7, c_8, c_{12}	$u^{64} + 2u^{63} + \cdots - 14u - 1$
c_9	$u^{64} - u^{63} + \cdots - 132u - 4$
c_{10}	$u^{64} + u^{63} + \cdots - 1769u + 1279$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{64}+25y^{63}+\cdots+9011076y+223729$
c_2	$y^{64}+76y^{63}+\cdots+188592y+107584$
c_3	$y^{64}+51y^{63}+\cdots-510208710782y+38530156681$
c_4	$y^{64}-11y^{63}+\cdots-87040y+4096$
c_5, c_{11}	$y^{64}+26y^{63}+\cdots+49616y+1936$
c_6	$y^{64}+69y^{63}+\cdots+3038519y+579121$
c_7, c_8, c_{12}	$y^{64}-66y^{63}+\cdots-16y+1$
c_9	$y^{64}+17y^{63}+\cdots-3936y+16$
c_{10}	$y^{64}-87y^{63}+\cdots-27241069y+1635841$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.335462+0.960170I$ $a=\ 0.595539+0.682559I$ $b=-0.963148-0.475228I$	$0.911770-1.032120I$	$10.14320+0.I$
$u=-0.335462-0.960170I$ $a=\ 0.595539-0.682559I$ $b=-0.963148+0.475228I$	$0.911770+1.032120I$	$10.14320+0.I$
$u=\ 0.947399+0.407862I$ $a=\ 0.338537+0.167075I$ $b=\ 0.248342+0.496214I$	$-1.74827-1.26516I$	0
$u=\ 0.947399-0.407862I$ $a=\ 0.338537-0.167075I$ $b=\ 0.248342-0.496214I$	$-1.74827+1.26516I$	0
$u=-0.083732+0.833478I$ $a=\ 1.045740-0.072964I$ $b=\ 0.415317-0.555202I$	$3.87313+2.36028I$	$5.21332-3.90932I$
$u=-0.083732-0.833478I$ $a=\ 1.045740+0.072964I$ $b=\ 0.415317+0.555202I$	$3.87313-2.36028I$	$5.21332+3.90932I$
$u=-0.274944+0.772279I$ $a=\ 0.790148+0.696555I$ $b=\ 0.900831-0.923664I$	$3.41888+3.02488I$	$6.95291-3.41925I$
$u=-0.274944-0.772279I$ $a=\ 0.790148-0.696555I$ $b=\ 0.900831+0.923664I$	$3.41888-3.02488I$	$6.95291+3.41925I$
$u=\ 0.075179+0.799821I$ $a=\ 0.467257-0.575187I$ $b=-1.259260-0.113697I$	$-0.99222-4.14641I$	$3.23080+6.97746I$
$u=\ 0.075179-0.799821I$ $a=\ 0.467257+0.575187I$ $b=-1.259260+0.113697I$	$-0.99222+4.14641I$	$3.23080-6.97746I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.413467 + 1.150880I$ $a = 0.144937 - 1.402750I$ $b = -0.04335 + 1.55505I$	$8.44712 - 3.02698I$	0
$u = 0.413467 - 1.150880I$ $a = 0.144937 + 1.402750I$ $b = -0.04335 - 1.55505I$	$8.44712 + 3.02698I$	0
$u = 0.040362 + 0.770178I$ $a = 0.243807 + 0.579784I$ $b = -1.365740 + 0.360315I$	$4.98892 + 8.36284I$	$6.61798 - 6.58755I$
$u = 0.040362 - 0.770178I$ $a = 0.243807 - 0.579784I$ $b = -1.365740 - 0.360315I$	$4.98892 - 8.36284I$	$6.61798 + 6.58755I$
$u = 0.642406 + 0.395793I$ $a = 0.539832 + 0.618893I$ $b = 0.406004 + 0.585662I$	$-1.72328 - 1.35345I$	$2.84079 + 5.01791I$
$u = 0.642406 - 0.395793I$ $a = 0.539832 - 0.618893I$ $b = 0.406004 - 0.585662I$	$-1.72328 + 1.35345I$	$2.84079 - 5.01791I$
$u = -1.24948$ $a = 0.543935$ $b = 0.299788$	2.44452	0
$u = -0.647244 + 0.349890I$ $a = -1.55678 + 1.74713I$ $b = 0.254178 - 0.482779I$	$3.51271 - 6.62719I$	$6.97914 + 1.82931I$
$u = -0.647244 - 0.349890I$ $a = -1.55678 - 1.74713I$ $b = 0.254178 + 0.482779I$	$3.51271 + 6.62719I$	$6.97914 - 1.82931I$
$u = -1.313910 + 0.215826I$ $a = -0.220902 + 0.147842I$ $b = 0.039760 - 0.791805I$	$-1.70737 + 4.39848I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.313910-0.215826I$ $a=-0.220902-0.147842I$ $b=\ \ 0.039760+0.791805I$	$-1.70737-4.39848I$	0
$u=-1.002620+0.901051I$ $a=\ \ 0.650289-0.114573I$ $b=\ \ 0.489302-0.434084I$	$2.48875+1.68278I$	0
$u=-1.002620-0.901051I$ $a=\ \ 0.650289+0.114573I$ $b=\ \ 0.489302+0.434084I$	$2.48875-1.68278I$	0
$u=\ \ 0.21372+1.41112I$ $a=-0.482160+1.217250I$ $b=\ \ 0.00954-1.79768I$	$6.23466-0.00352I$	0
$u=\ \ 0.21372-1.41112I$ $a=-0.482160-1.217250I$ $b=\ \ 0.00954+1.79768I$	$6.23466+0.00352I$	0
$u=-0.329023+0.401985I$ $a=\ \ 0.975551+0.406906I$ $b=-0.291314+0.190827I$	$1.055720-0.384090I$	$8.69250+1.65178I$
$u=-0.329023-0.401985I$ $a=\ \ 0.975551-0.406906I$ $b=-0.291314-0.190827I$	$1.055720+0.384090I$	$8.69250-1.65178I$
$u=-0.513200$ $a=\ \ 0.799271$ $b=\ \ 1.40728$	1.44268	14.7350
$u=-0.45260+1.42133I$ $a=-0.683739-1.056290I$ $b=\ \ 0.08781+1.76465I$	$11.76650+4.51689I$	0
$u=-0.45260-1.42133I$ $a=-0.683739+1.056290I$ $b=\ \ 0.08781-1.76465I$	$11.76650-4.51689I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.204121 + 0.364148I$ $a = 1.076330 - 0.192389I$ $b = 0.905084 + 0.351582I$	$-1.66720 - 0.88112I$	$-0.76201 - 1.29100I$
$u = 0.204121 - 0.364148I$ $a = 1.076330 + 0.192389I$ $b = 0.905084 - 0.351582I$	$-1.66720 + 0.88112I$	$-0.76201 + 1.29100I$
$u = 1.58492 + 0.27627I$ $a = -0.296423 - 0.332935I$ $b = -0.051364 + 0.836910I$	$4.76022 - 7.21958I$	0
$u = 1.58492 - 0.27627I$ $a = -0.296423 + 0.332935I$ $b = -0.051364 - 0.836910I$	$4.76022 + 7.21958I$	0
$u = 0.291913 + 0.225982I$ $a = -3.00732 - 2.80629I$ $b = 0.436516 + 0.467769I$	$-2.93293 + 3.01950I$	$3.23967 - 1.03009I$
$u = 0.291913 - 0.225982I$ $a = -3.00732 + 2.80629I$ $b = 0.436516 - 0.467769I$	$-2.93293 - 3.01950I$	$3.23967 + 1.03009I$
$u = 0.192418 + 0.305935I$ $a = 1.86300 - 1.16501I$ $b = -0.457918 - 0.710588I$	$7.58427 + 2.24555I$	$8.62267 - 0.85529I$
$u = 0.192418 - 0.305935I$ $a = 1.86300 + 1.16501I$ $b = -0.457918 + 0.710588I$	$7.58427 - 2.24555I$	$8.62267 + 0.85529I$
$u = 0.01286 + 1.66235I$ $a = -0.251779 - 1.041480I$ $b = 0.03327 + 1.75492I$	$7.78730 - 4.22834I$	0
$u = 0.01286 - 1.66235I$ $a = -0.251779 + 1.041480I$ $b = 0.03327 - 1.75492I$	$7.78730 + 4.22834I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.39994 + 1.64387I$ $a = 0.177619 - 0.870097I$ $b = 0.38697 + 1.58361I$	$2.98425 - 4.18476I$	0
$u = 0.39994 - 1.64387I$ $a = 0.177619 + 0.870097I$ $b = 0.38697 - 1.58361I$	$2.98425 + 4.18476I$	0
$u = 0.283207 + 0.080826I$ $a = -1.44066 - 3.30718I$ $b = 0.589344 - 0.669131I$	$-1.97533 + 1.42210I$	$0.91620 - 6.10321I$
$u = 0.283207 - 0.080826I$ $a = -1.44066 + 3.30718I$ $b = 0.589344 + 0.669131I$	$-1.97533 - 1.42210I$	$0.91620 + 6.10321I$
$u = 0.24314 + 1.68834I$ $a = 0.056309 + 1.169580I$ $b = -0.58798 - 1.65311I$	$5.49499 - 5.40830I$	0
$u = 0.24314 - 1.68834I$ $a = 0.056309 - 1.169580I$ $b = -0.58798 + 1.65311I$	$5.49499 + 5.40830I$	0
$u = -0.16084 + 1.73860I$ $a = 0.230933 + 0.972132I$ $b = 0.307850 - 1.361670I$	$4.47021 + 1.14177I$	0
$u = -0.16084 - 1.73860I$ $a = 0.230933 - 0.972132I$ $b = 0.307850 + 1.361670I$	$4.47021 - 1.14177I$	0
$u = -0.67469 + 1.61833I$ $a = 0.214372 + 1.071080I$ $b = 0.09629 - 1.53447I$	$5.14768 + 3.33362I$	0
$u = -0.67469 - 1.61833I$ $a = 0.214372 - 1.071080I$ $b = 0.09629 + 1.53447I$	$5.14768 - 3.33362I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.49546+1.71265I$ $a=\ \ 0.092150+0.806725I$ $b=\ \ 0.36691-1.75692I$	$8.17146+6.66450I$	0
$u=-0.49546-1.71265I$ $a=\ \ 0.092150-0.806725I$ $b=\ \ 0.36691+1.75692I$	$8.17146-6.66450I$	0
$u=-0.43824+1.74966I$ $a=-0.035433-1.125870I$ $b=-0.53312+1.71047I$	$5.15081+11.10080I$	0
$u=-0.43824-1.74966I$ $a=-0.035433+1.125870I$ $b=-0.53312-1.71047I$	$5.15081-11.10080I$	0
$u=\ \ 0.07921+1.82792I$ $a=\ \ 0.167616-1.054340I$ $b=-0.53046+1.46401I$	$13.45120+1.32917I$	0
$u=\ \ 0.07921-1.82792I$ $a=\ \ 0.167616+1.054340I$ $b=-0.53046-1.46401I$	$13.45120-1.32917I$	0
$u=\ \ 0.05911+1.89435I$ $a=-0.290232+0.899724I$ $b=\ \ 0.02290-1.79203I$	$14.7249+6.6669I$	0
$u=\ \ 0.05911-1.89435I$ $a=-0.290232-0.899724I$ $b=\ \ 0.02290+1.79203I$	$14.7249-6.6669I$	0
$u=\ \ 0.54843+1.85229I$ $a=-0.061480+1.071260I$ $b=-0.49609-1.73014I$	$11.8878-15.3498I$	0
$u=\ \ 0.54843-1.85229I$ $a=-0.061480-1.071260I$ $b=-0.49609+1.73014I$	$11.8878+15.3498I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.91204+1.79319I$		
$a=$	$0.271605-1.004440I$	$10.63020-4.22345I$	0
$b=$	$0.10036+1.51621I$		
$u=$	$0.91204-1.79319I$		
$a=$	$0.271605+1.004440I$	$10.63020+4.22345I$	0
$b=$	$0.10036-1.51621I$		
$u=$	$-0.05374+2.23789I$		
$a=$	$0.164957-1.018210I$	$12.37100-0.19756I$	0
$b=$	$0.129617+1.231340I$		
$u=$	$-0.05374-2.23789I$		
$a=$	$0.164957+1.018210I$	$12.37100+0.19756I$	0
$b=$	$0.129617-1.231340I$		

II.

$\boldsymbol{I_2^u = \langle -3.64\times10^{14}u^{18}+2.26\times10^{14}u^{17}+\cdots+4.32\times10^{15}b-6.63\times10^{13},\ 7.51\times10^{15}u^{18}-5.61\times10^{15}u^{17}+\cdots+3.88\times10^{16}a+1.80\times10^{16},\ u^{19}-u^{18}+\cdots+5u-9\rangle}$

(i) Arc colorings

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

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

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

$$a_7 = \begin{pmatrix}-0.193393u^{18}+0.144333u^{17}+\cdots-2.35275u-0.463784\\0.0843336u^{18}-0.0522716u^{17}+\cdots+0.789469u+0.0153568\end{pmatrix}$$

$$a_4 = \begin{pmatrix}0.109059u^{18}-0.0920616u^{17}+\cdots+1.56328u+2.44843\\-0.0485297u^{18}+0.110929u^{17}+\cdots-0.896544u+0.847023\end{pmatrix}$$

$$a_1 = \begin{pmatrix}0.192472u^{18}-0.326504u^{17}+\cdots+2.51451u-1.68558\\-0.0459865u^{18}-0.101011u^{17}+\cdots+0.541386u-1.38026\end{pmatrix}$$

$$a_6 = \begin{pmatrix}-0.109059u^{18}+0.0920616u^{17}+\cdots-1.56328u-0.448427\\0.0843336u^{18}-0.0522716u^{17}+\cdots+0.789469u+0.0153568\end{pmatrix}$$

$$a_5 = \begin{pmatrix}-0.109059u^{18}+0.0920616u^{17}+\cdots-1.56328u-0.448427\\0.0358039u^{18}+0.0586574u^{17}+\cdots-0.107076u-0.137620\end{pmatrix}$$

$$a_{12} = \begin{pmatrix}0.00205396u^{18}+0.179383u^{17}+\cdots-2.72735u+1.54621\\0.187705u^{18}+0.0524445u^{17}+\cdots+0.697793u+2.93670\end{pmatrix}$$

$$a_{10} = \begin{pmatrix}0.151338u^{18}-0.164905u^{17}+\cdots+2.78710u+0.861192\\-0.0419331u^{18}-0.0288332u^{17}+\cdots+1.52675u-1.10364\end{pmatrix}$$

$$a_9 = \begin{pmatrix}0.109405u^{18}-0.193738u^{17}+\cdots+4.31384u-0.242445\\-0.0419331u^{18}-0.0288332u^{17}+\cdots+1.52675u-1.10364\end{pmatrix}$$

$$a_8 = \begin{pmatrix}-0.112709u^{18}+0.299193u^{17}+\cdots-0.988091u+2.55979\\0.0604367u^{18}+0.175102u^{17}+\cdots+0.648882u+2.74600\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes

$$= -\frac{4159791503582966}{4316043181765921}u^{18}+\frac{2428875393014454}{4316043181765921}u^{17}+\cdots-\frac{60944556846167549}{4316043181765921}u-\frac{39429270153907668}{4316043181765921}$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{19} - 6u^{18} + \cdots + 3u - 1$
c_2	$u^{19} - u^{18} + \cdots + 5u - 9$
c_3	$u^{19} + 2u^{18} + \cdots + 15u - 9$
c_4	$u^{19} + u^{17} + \cdots + u + 1$
c_5	$u^{19} - u^{18} + \cdots - 22u^2 - 4$
c_6	$u^{19} + 4u^{18} + \cdots - 2u + 1$
c_7, c_8	$u^{19} + u^{18} + \cdots + 3u + 1$
c_9	$u^{19} - u^{17} + \cdots + 4u + 4$
c_{10}	$u^{19} + 2u^{18} + \cdots + 4u + 1$
c_{11}	$u^{19} + u^{18} + \cdots + 22u^2 + 4$
c_{12}	$u^{19} - u^{18} + \cdots + 3u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{19} + 6y^{18} + \cdots - 7y - 1$
c_2	$y^{19} + 13y^{18} + \cdots + 439y - 81$
c_3	$y^{19} + 20y^{18} + \cdots - 405y - 81$
c_4	$y^{19} + 2y^{18} + \cdots + y - 1$
c_5, c_{11}	$y^{19} + 15y^{18} + \cdots - 176y - 16$
c_6	$y^{19} + 10y^{18} + \cdots + 10y - 1$
c_7, c_8, c_{12}	$y^{19} - 21y^{18} + \cdots - 11y - 1$
c_9	$y^{19} - 2y^{18} + \cdots + 96y - 16$
c_{10}	$y^{19} - 14y^{18} + \cdots + 30y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.389083 + 0.971159I$ $a = -0.277741 + 0.595285I$ $b = 0.932245 - 0.473799I$	$0.46032 + 1.43826I$	$-0.20028 - 4.42405I$
$u = 0.389083 - 0.971159I$ $a = -0.277741 - 0.595285I$ $b = 0.932245 + 0.473799I$	$0.46032 - 1.43826I$	$-0.20028 + 4.42405I$
$u = -0.800104 + 0.507328I$ $a = 0.388644 - 0.220349I$ $b = 0.710720 - 0.420295I$	$-2.27973 + 1.36896I$	$-12.95881 - 5.08171I$
$u = -0.800104 - 0.507328I$ $a = 0.388644 + 0.220349I$ $b = 0.710720 + 0.420295I$	$-2.27973 - 1.36896I$	$-12.95881 + 5.08171I$
$u = -0.914926 + 0.042064I$ $a = 0.09423 + 1.49670I$ $b = -0.539979 - 0.327295I$	$2.77115 - 7.45545I$	$1.04337 + 6.84145I$
$u = -0.914926 - 0.042064I$ $a = 0.09423 - 1.49670I$ $b = -0.539979 + 0.327295I$	$2.77115 + 7.45545I$	$1.04337 - 6.84145I$
$u = 0.947057 + 0.591059I$ $a = 0.473404 + 0.014503I$ $b = 0.810839 + 0.917232I$	$2.33987 - 2.91659I$	$-0.25529 + 5.05539I$
$u = 0.947057 - 0.591059I$ $a = 0.473404 - 0.014503I$ $b = 0.810839 - 0.917232I$	$2.33987 + 2.91659I$	$-0.25529 - 5.05539I$
$u = 0.818159$ $a = 0.221354$ $b = 1.21245$	1.07163	-8.02200
$u = -0.555367 + 0.570698I$ $a = 1.55276 - 0.46301I$ $b = -0.470414 - 0.688016I$	$-1.79164 - 0.64199I$	$4.02276 - 3.01754I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.555367-0.570698I$ $a=\ \ 1.55276+0.46301I$ $b=-0.470414+0.688016I$	$-1.79164+0.64199I$	$4.02276+3.01754I$
$u=\ \ 0.699603+0.245787I$ $a=\ \ 0.80766+1.51414I$ $b=-0.486775+0.028785I$	$-3.49065-3.76561I$	$-3.11008+7.06177I$
$u=\ \ 0.699603-0.245787I$ $a=\ \ 0.80766-1.51414I$ $b=-0.486775-0.028785I$	$-3.49065+3.76561I$	$-3.11008-7.06177I$
$u=\ \ 0.70448+1.41196I$ $a=\ \ 0.305323-0.963046I$ $b=\ \ 0.00641+1.66974I$	$9.00068-4.71241I$	$5.89823+4.68766I$
$u=\ \ 0.70448-1.41196I$ $a=\ \ 0.305323+0.963046I$ $b=\ \ 0.00641-1.66974I$	$9.00068+4.71241I$	$5.89823-4.68766I$
$u=-0.47470+1.61232I$ $a=\ \ 0.160463+1.124330I$ $b=\ \ 0.17424-1.56147I$	$5.05062+2.83722I$	$3.41245+2.37831I$
$u=-0.47470-1.61232I$ $a=\ \ 0.160463-1.124330I$ $b=\ \ 0.17424+1.56147I$	$5.05062-2.83722I$	$3.41245-2.37831I$
$u=\ \ 0.09579+2.08758I$ $a=-0.004309-1.065310I$ $b=\ \ 0.256494+1.250070I$	$12.07760-1.14448I$	$4.65867+5.51636I$
$u=\ \ 0.09579-2.08758I$ $a=-0.004309+1.065310I$ $b=\ \ 0.256494-1.250070I$	$12.07760+1.14448I$	$4.65867-5.51636I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{19}-6u^{18}+\cdots+3u-1)(u^{64}-7u^{63}+\cdots-2062u+473)$
c_2	$(u^{19}-u^{18}+\cdots+5u-9)(u^{64}+38u^{62}+\cdots+3396u+328)$
c_3	$(u^{19}+2u^{18}+\cdots+15u-9)(u^{64}-3u^{63}+\cdots-1741810u-196291)$
c_4	$(u^{19}+u^{17}+\cdots+u+1)(u^{64}+3u^{63}+\cdots-160u-64)$
c_5	$(u^{19}-u^{18}+\cdots-22u^2-4)(u^{64}+13u^{62}+\cdots-400u+44)$
c_6	$(u^{19}+4u^{18}+\cdots-2u+1)(u^{64}+u^{63}+\cdots+6587u+761)$
c_7, c_8	$(u^{19}+u^{18}+\cdots+3u+1)(u^{64}+2u^{63}+\cdots-14u-1)$
c_9	$(u^{19}-u^{17}+\cdots+4u+4)(u^{64}-u^{63}+\cdots-132u-4)$
c_{10}	$(u^{19}+2u^{18}+\cdots+4u+1)(u^{64}+u^{63}+\cdots-1769u+1279)$
c_{11}	$(u^{19}+u^{18}+\cdots+22u^2+4)(u^{64}+13u^{62}+\cdots-400u+44)$
c_{12}	$(u^{19}-u^{18}+\cdots+3u-1)(u^{64}+2u^{63}+\cdots-14u-1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{19}+6y^{18}+\cdots-7y-1)(y^{64}+25y^{63}+\cdots+9011076y+223729)$
c_2	$(y^{19}+13y^{18}+\cdots+439y-81)$ $\cdot(y^{64}+76y^{63}+\cdots+188592y+107584)$
c_3	$(y^{19}+20y^{18}+\cdots-405y-81)$ $\cdot(y^{64}+51y^{63}+\cdots-510208710782y+38530156681)$
c_4	$(y^{19}+2y^{18}+\cdots+y-1)(y^{64}-11y^{63}+\cdots-87040y+4096)$
c_5, c_{11}	$(y^{19}+15y^{18}+\cdots-176y-16)(y^{64}+26y^{63}+\cdots+49616y+1936)$
c_6	$(y^{19}+10y^{18}+\cdots+10y-1)$ $\cdot(y^{64}+69y^{63}+\cdots+3038519y+579121)$
c_7, c_8, c_{12}	$(y^{19}-21y^{18}+\cdots-11y-1)(y^{64}-66y^{63}+\cdots-16y+1)$
c_9	$(y^{19}-2y^{18}+\cdots+96y-16)(y^{64}+17y^{63}+\cdots-3936y+16)$
c_{10}	$(y^{19}-14y^{18}+\cdots+30y-1)$ $\cdot(y^{64}-87y^{63}+\cdots-27241069y+1635841)$