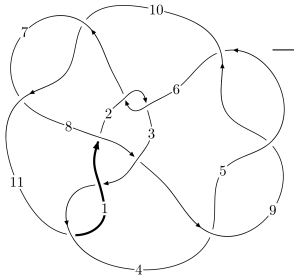
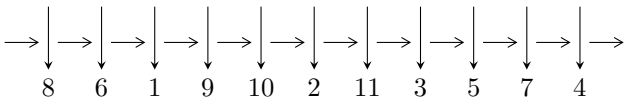
$11a_{319}$ ($K11a_{319}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -3.02320 \times 10^{126} u^{75} - 1.11777 \times 10^{126} u^{74} + \cdots + 3.99495 \times 10^{125} b - 2.42597 \times 10^{127}, \\ & - 1.55725 \times 10^{127} u^{75} - 6.75726 \times 10^{126} u^{74} + \cdots + 4.39445 \times 10^{126} a - 1.20832 \times 10^{128}, \\ & u^{76} - u^{75} + \cdots + 20u - 11 \rangle \\ I_2^u = \langle & u^{14} - 8u^{12} + 2u^{11} + 24u^{10} - 12u^9 - 31u^8 + 25u^7 + 12u^6 - 20u^5 + 6u^4 + 4u^3 - 4u^2 + b + u + 1, \\ & u^7 - 5u^5 + u^4 + 7u^3 - 3u^2 + a - 2u + 2,\ u^{17} - 10u^{15} + \cdots - 4u + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 93 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. $\boldsymbol{I_1^u = \langle -3.02 \times 10^{126} u^{75} - 1.12 \times 10^{126} u^{74} + \cdots + 3.99 \times 10^{125} b - 2.43 \times 10^{127},\ -1.56 \times 10^{127} u^{75} - 6.76 \times 10^{126} u^{74} + \cdots + 4.39 \times 10^{126} a - 1.21 \times 10^{128},\ u^{76} - u^{75} + \cdots + 20u - 11 \rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 3.54367u^{75} + 1.53768u^{74} + \cdots - 35.9783u + 27.4965 \\ 7.56756u^{75} + 2.79795u^{74} + \cdots - 67.2178u + 60.7258 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -5.63330u^{75} - 2.05372u^{74} + \cdots + 46.7663u - 43.7933 \\ -1.63145u^{75} - 0.0719719u^{74} + \cdots + 15.8051u - 16.2500 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -6.48406u^{75} - 2.02652u^{74} + \cdots + 54.0242u - 53.0924 \\ 0.680076u^{75} + 0.626654u^{74} + \cdots - 5.15979u + 3.31366 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -5.69380u^{75} - 2.66010u^{74} + \cdots + 46.9149u - 40.6325 \\ -5.61367u^{75} - 2.27578u^{74} + \cdots + 50.6262u - 43.0534 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 11.1112u^{75} + 4.33563u^{74} + \cdots - 103.196u + 88.2222 \\ 7.56756u^{75} + 2.79795u^{74} + \cdots - 67.2178u + 60.7258 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -12.8280u^{75} - 5.10092u^{74} + \cdots + 116.740u - 101.789 \\ -9.74429u^{75} - 3.51162u^{74} + \cdots + 86.7191u - 78.0492 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -12.8280u^{75} - 5.10092u^{74} + \cdots + 116.740u - 101.789 \\ -9.74429u^{75} - 3.51162u^{74} + \cdots + 86.7191u - 78.0492 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 17.3913u^{75} + 5.44974u^{74} + \cdots - 141.033u + 132.140$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{76} - u^{75} + \cdots + 412u - 8$
c_2, c_6	$u^{76} + 2u^{75} + \cdots - 3u - 1$
c_3, c_{11}	$u^{76} - 2u^{75} + \cdots - 9u + 1$
c_4, c_5, c_9	$u^{76} - u^{75} + \cdots + 20u - 11$
c_7, c_{10}	$u^{76} - 27u^{74} + \cdots + 87u + 89$
c_8	$u^{76} + u^{75} + \cdots - 656u - 71$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{76} + 7y^{75} + \cdots - 193744y + 64$
c_2, c_6	$y^{76} + 38y^{75} + \cdots + 9y + 1$
c_3, c_{11}	$y^{76} + 38y^{75} + \cdots - 35y + 1$
c_4, c_5, c_9	$y^{76} - 77y^{75} + \cdots - 1918y + 121$
c_7, c_{10}	$y^{76} - 54y^{75} + \cdots - 315687y + 7921$
c_8	$y^{76} + 3y^{75} + \cdots + 35282y + 5041$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.389612 + 0.916154I$ $a = 0.592515 - 1.155730I$ $b = -0.401944 + 1.052230I$	$0.62066 + 1.50555I$	0
$u = 0.389612 - 0.916154I$ $a = 0.592515 + 1.155730I$ $b = -0.401944 - 1.052230I$	$0.62066 - 1.50555I$	0
$u = 0.823395 + 0.409350I$ $a = -1.05402 + 1.27829I$ $b = 0.263172 - 0.984227I$	$4.83635 + 1.37448I$	0
$u = 0.823395 - 0.409350I$ $a = -1.05402 - 1.27829I$ $b = 0.263172 + 0.984227I$	$4.83635 - 1.37448I$	0
$u = -0.483501 + 0.974155I$ $a = 0.45679 + 1.67940I$ $b = 0.550419 - 1.214740I$	$2.29106 + 11.42070I$	0
$u = -0.483501 - 0.974155I$ $a = 0.45679 - 1.67940I$ $b = 0.550419 + 1.214740I$	$2.29106 - 11.42070I$	0
$u = -0.424777 + 0.743415I$ $a = -0.237044 - 0.126527I$ $b = 0.926094 + 0.184524I$	$-0.84401 + 6.11908I$	$-11.00000 - 6.39496I$
$u = -0.424777 - 0.743415I$ $a = -0.237044 + 0.126527I$ $b = 0.926094 - 0.184524I$	$-0.84401 - 6.11908I$	$-11.00000 + 6.39496I$
$u = -0.814292 + 0.244342I$ $a = 1.026810 + 0.480678I$ $b = 0.092563 - 0.921471I$	$-0.099237 + 0.900566I$	$-11.00000 + 0.I$
$u = -0.814292 - 0.244342I$ $a = 1.026810 - 0.480678I$ $b = 0.092563 + 0.921471I$	$-0.099237 - 0.900566I$	$-11.00000 + 0.I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.176061+0.818582I$ $a=\ 0.40528+1.71607I$ $b=-0.156652-0.429229I$	$-1.33166-1.72547I$	$-14.8473+4.3130I$
$u=-0.176061-0.818582I$ $a=\ 0.40528-1.71607I$ $b=-0.156652+0.429229I$	$-1.33166+1.72547I$	$-14.8473-4.3130I$
$u=\ 0.543220+0.596118I$ $a=-0.72897+1.68729I$ $b=-0.578793-1.217190I$	$-0.40362-6.16038I$	$-12.6367+6.4189I$
$u=\ 0.543220-0.596118I$ $a=-0.72897-1.68729I$ $b=-0.578793+1.217190I$	$-0.40362+6.16038I$	$-12.6367-6.4189I$
$u=\ 0.403956+0.694531I$ $a=\ 0.73517-2.36579I$ $b=\ 0.385169+1.155850I$	$5.95784-5.41839I$	$-4.91437+6.37990I$
$u=\ 0.403956-0.694531I$ $a=\ 0.73517+2.36579I$ $b=\ 0.385169-1.155850I$	$5.95784+5.41839I$	$-4.91437-6.37990I$
$u=-0.015418+0.764248I$ $a=\ 0.31937-1.71331I$ $b=\ 0.256820+1.279050I$	$4.17534+2.02937I$	$-5.35264-3.44939I$
$u=-0.015418-0.764248I$ $a=\ 0.31937+1.71331I$ $b=\ 0.256820-1.279050I$	$4.17534-2.02937I$	$-5.35264+3.44939I$
$u=-1.183710+0.358531I$ $a=\ 1.199420+0.565118I$ $b=\ 0.548063-1.068230I$	$0.57865+2.05556I$	0
$u=-1.183710-0.358531I$ $a=\ 1.199420-0.565118I$ $b=\ 0.548063+1.068230I$	$0.57865-2.05556I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.251120 + 0.248625I$ $a = -0.239750 + 0.761391I$ $b = -0.04156 - 1.45310I$	$0.32319 - 5.68921I$	0
$u = 1.251120 - 0.248625I$ $a = -0.239750 - 0.761391I$ $b = -0.04156 + 1.45310I$	$0.32319 + 5.68921I$	0
$u = 1.28115$ $a = -0.459645$ $b = -1.47825$	-6.35187	0
$u = -0.415404 + 0.582852I$ $a = 0.68270 + 1.54587I$ $b = 0.204358 - 0.032720I$	$-1.28370 - 1.66052I$	$-14.5329 + 1.9841I$
$u = -0.415404 - 0.582852I$ $a = 0.68270 - 1.54587I$ $b = 0.204358 + 0.032720I$	$-1.28370 + 1.66052I$	$-14.5329 - 1.9841I$
$u = -0.890446 + 0.929837I$ $a = -0.353070 - 0.943896I$ $b = 0.423475 + 1.099500I$	$1.26015 - 5.05770I$	0
$u = -0.890446 - 0.929837I$ $a = -0.353070 + 0.943896I$ $b = 0.423475 - 1.099500I$	$1.26015 + 5.05770I$	0
$u = -1.283810 + 0.130212I$ $a = 0.118830 - 0.700349I$ $b = 0.369265 + 1.250970I$	$0.441238 - 0.180661I$	0
$u = -1.283810 - 0.130212I$ $a = 0.118830 + 0.700349I$ $b = 0.369265 - 1.250970I$	$0.441238 + 0.180661I$	0
$u = 1.266800 + 0.325823I$ $a = -0.765340 + 1.058530I$ $b = -0.566425 - 1.234630I$	$-1.94552 - 5.55310I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.266800 - 0.325823I$ $a = -0.765340 - 1.058530I$ $b = -0.566425 + 1.234630I$	$-1.94552 + 5.55310I$	0
$u = 0.444836 + 0.522365I$ $a = -0.398098 - 0.467252I$ $b = 0.596050 + 0.039922I$	$2.60495 - 1.78296I$	$-8.00353 + 3.87013I$
$u = 0.444836 - 0.522365I$ $a = -0.398098 + 0.467252I$ $b = 0.596050 - 0.039922I$	$2.60495 + 1.78296I$	$-8.00353 - 3.87013I$
$u = 1.311600 + 0.103518I$ $a = -1.03048 + 1.21009I$ $b = -0.514398 - 1.236890I$	$-1.92305 - 4.87099I$	0
$u = 1.311600 - 0.103518I$ $a = -1.03048 - 1.21009I$ $b = -0.514398 + 1.236890I$	$-1.92305 + 4.87099I$	0
$u = 1.349720 + 0.065820I$ $a = 1.217170 - 0.101012I$ $b = 0.870938 + 1.013400I$	$0.77408 - 3.35704I$	0
$u = 1.349720 - 0.065820I$ $a = 1.217170 + 0.101012I$ $b = 0.870938 - 1.013400I$	$0.77408 + 3.35704I$	0
$u = 1.350640 + 0.063400I$ $a = -0.176995 - 0.118422I$ $b = -0.931081 + 0.000401I$	$-5.57637 - 0.20639I$	0
$u = 1.350640 - 0.063400I$ $a = -0.176995 + 0.118422I$ $b = -0.931081 - 0.000401I$	$-5.57637 + 0.20639I$	0
$u = -1.357900 + 0.043884I$ $a = -1.79725 + 1.15210I$ $b = -0.387768 - 0.909786I$	$-5.22695 + 2.29906I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.357900-0.043884I$ $a=-1.79725-1.15210I$ $b=-0.387768+0.909786I$	$-5.22695-2.29906I$	0
$u=-0.122694+0.619434I$ $a=0.10445-2.19105I$ $b=-0.296199+1.106080I$	$2.14249+2.23159I$	$-8.54552-3.67223I$
$u=-0.122694-0.619434I$ $a=0.10445+2.19105I$ $b=-0.296199-1.106080I$	$2.14249-2.23159I$	$-8.54552+3.67223I$
$u=-1.44891+0.14080I$ $a=-0.481123-0.199172I$ $b=-1.224630-0.584901I$	$-9.34391+2.22180I$	0
$u=-1.44891-0.14080I$ $a=-0.481123+0.199172I$ $b=-1.224630+0.584901I$	$-9.34391-2.22180I$	0
$u=-1.47061+0.16030I$ $a=0.306582+0.332343I$ $b=0.822237+0.047329I$	$-3.60983+4.19667I$	0
$u=-1.47061-0.16030I$ $a=0.306582-0.332343I$ $b=0.822237-0.047329I$	$-3.60983-4.19667I$	0
$u=-1.41933+0.42065I$ $a=-0.67180-1.40557I$ $b=-0.442929+0.884817I$	$-5.65001+6.63038I$	0
$u=-1.41933-0.42065I$ $a=-0.67180+1.40557I$ $b=-0.442929-0.884817I$	$-5.65001-6.63038I$	0
$u=-1.50726+0.09538I$ $a=-0.602552+0.769876I$ $b=-0.338449+0.760870I$	$-5.76261+5.49552I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.50726-0.09538I$ $a=-0.602552-0.769876I$ $b=-0.338449-0.760870I$	$-5.76261-5.49552I$	0
$u=1.48612+0.28014I$ $a=0.298246-0.283277I$ $b=1.119880-0.368135I$	$-7.01934-9.87112I$	0
$u=1.48612-0.28014I$ $a=0.298246+0.283277I$ $b=1.119880+0.368135I$	$-7.01934+9.87112I$	0
$u=-1.49359+0.25146I$ $a=1.21705+1.14348I$ $b=0.486385-1.199380I$	$-0.24612+8.87181I$	0
$u=-1.49359-0.25146I$ $a=1.21705-1.14348I$ $b=0.486385+1.199380I$	$-0.24612-8.87181I$	0
$u=-1.50705+0.22242I$ $a=-1.051270-0.758406I$ $b=-0.75035+1.23699I$	$-7.04703+9.23303I$	0
$u=-1.50705-0.22242I$ $a=-1.051270+0.758406I$ $b=-0.75035-1.23699I$	$-7.04703-9.23303I$	0
$u=0.360949+0.309680I$ $a=0.180409+0.096738I$ $b=-1.096150+0.295785I$	$-3.43137-0.38386I$	$-15.2643+10.3620I$
$u=0.360949-0.309680I$ $a=0.180409-0.096738I$ $b=-1.096150-0.295785I$	$-3.43137+0.38386I$	$-15.2643-10.3620I$
$u=0.417296+0.152664I$ $a=-0.84873-1.85322I$ $b=-0.341529-1.042830I$	$0.75348-4.33489I$	$-11.2955+8.9006I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.417296 - 0.152664I$ $a = -0.84873 + 1.85322I$ $b = -0.341529 + 1.042830I$	$0.75348 + 4.33489I$	$-11.2955 - 8.9006I$
$u = 1.56105 + 0.14869I$ $a = 0.992041 - 0.886508I$ $b = 0.411088 + 0.863529I$	$-8.50171 - 1.93111I$	0
$u = 1.56105 - 0.14869I$ $a = 0.992041 + 0.886508I$ $b = 0.411088 - 0.863529I$	$-8.50171 + 1.93111I$	0
$u = 1.53973 + 0.35591I$ $a = 1.07371 - 0.98960I$ $b = 0.672388 + 1.243770I$	$-4.2259 - 16.2332I$	0
$u = 1.53973 - 0.35591I$ $a = 1.07371 + 0.98960I$ $b = 0.672388 - 1.243770I$	$-4.2259 + 16.2332I$	0
$u = -1.57933 + 0.28128I$ $a = 0.128178 + 0.124917I$ $b = -0.405226 - 0.753491I$	$-6.09912 + 3.01607I$	0
$u = -1.57933 - 0.28128I$ $a = 0.128178 - 0.124917I$ $b = -0.405226 + 0.753491I$	$-6.09912 - 3.01607I$	0
$u = 1.63371 + 0.02501I$ $a = 1.034860 - 0.164822I$ $b = 0.371504 + 0.828903I$	$-8.60907 - 1.62605I$	0
$u = 1.63371 - 0.02501I$ $a = 1.034860 + 0.164822I$ $b = 0.371504 - 0.828903I$	$-8.60907 + 1.62605I$	0
$u = 0.116708 + 0.338520I$ $a = 0.11659 + 3.10251I$ $b = 0.577872 - 1.070210I$	$4.88852 + 2.19681I$	$-2.89903 - 5.12791I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.116708 - 0.338520I$ $a = 0.11659 - 3.10251I$ $b = 0.577872 + 1.070210I$	$4.88852 - 2.19681I$	$-2.89903 + 5.12791I$
$u = -0.288819 + 0.196852I$ $a = 3.36414 + 3.48302I$ $b = -0.013597 + 0.532558I$	$-1.19588 - 1.58823I$	$-17.1201 + 3.8590I$
$u = -0.288819 - 0.196852I$ $a = 3.36414 - 3.48302I$ $b = -0.013597 - 0.532558I$	$-1.19588 + 1.58823I$	$-17.1201 - 3.8590I$
$u = -0.342111$ $a = 0.739155$ $b = -0.232162$	-0.544579	-18.2820
$u = 1.66294 + 0.03279I$ $a = 0.499176 + 0.154210I$ $b = 0.395150 - 0.796004I$	$-8.73345 + 1.51887I$	0
$u = 1.66294 - 0.03279I$ $a = 0.499176 - 0.154210I$ $b = 0.395150 + 0.796004I$	$-8.73345 - 1.51887I$	0

II. $I_2^u = \langle u^{14} - 8u^{12} + \cdots + b + 1,\ u^7 - 5u^5 + u^4 + 7u^3 - 3u^2 + a - 2u + 2,\ u^{17} - 10u^{15} + \cdots - 4u + 1\rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^7 + 5u^5 - u^4 - 7u^3 + 3u^2 + 2u - 2 \\ -u^{14} + 8u^{12} + \cdots - u - 1 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^{16} - 9u^{14} + \cdots + 4u^2 - 3u \\ -u^{15} - u^{14} + \cdots - u - 1 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u^{16} - 9u^{14} + \cdots - 3u - 1 \\ -u^{14} - u^{13} + \cdots + 3u - 2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u^7 + 4u^5 - u^4 - 4u^3 + 2u^2 \\ -u^9 + 5u^7 - u^6 - 7u^5 + 3u^4 + u^3 - 2u^2 + 2u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^{14} + 8u^{12} + \cdots + u - 3 \\ -u^{14} + 8u^{12} + \cdots - u - 1 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -u^{16} + 9u^{14} + \cdots - u + 3 \\ -u^{16} + 9u^{14} + \cdots + 3u + 1 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -u^{16} + 9u^{14} + \cdots - u + 3 \\ -u^{16} + 9u^{14} + \cdots + 3u + 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -8u^{16} - 6u^{15} + 68u^{14} + 38u^{13} - 232u^{12} - 80u^{11} + 401u^{10} + 31u^9 - 372u^8 + 111u^7 + 181u^6 - 152u^5 - 23u^4 + 59u^3 - 36u^2 - 11u - 1$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{17}+4u^{14}+\cdots-2u+1$
c_2	$u^{17}+u^{16}+\cdots-u-1$
c_3	$u^{17}+3u^{16}+\cdots+3u+1$
c_4, c_5	$u^{17}-10u^{15}+\cdots-4u+1$
c_6	$u^{17}-u^{16}+\cdots-u+1$
c_7	$u^{17}+3u^{16}+\cdots-3u-1$
c_8	$u^{17}+4u^{14}+\cdots-8u+1$
c_9	$u^{17}-10u^{15}+\cdots-4u-1$
c_{10}	$u^{17}-3u^{16}+\cdots-3u+1$
c_{11}	$u^{17}-3u^{16}+\cdots+3u-1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{17} - 8y^{15} + \cdots + 12y - 1$
c_2, c_6	$y^{17} + 11y^{16} + \cdots - 11y - 1$
c_3, c_{11}	$y^{17} + 7y^{16} + \cdots - 11y - 1$
c_4, c_5, c_9	$y^{17} - 20y^{16} + \cdots + 20y - 1$
c_7, c_{10}	$y^{17} - 17y^{16} + \cdots + 13y - 1$
c_8	$y^{17} + 12y^{14} + \cdots + 64y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.200720+0.109093I$ $a=\ \ 1.259920+0.268542I$ $b=\ \ 0.788681-1.049830I$	$2.07326+3.18618I$	$-7.67391-3.38689I$
$u=-1.200720-0.109093I$ $a=\ \ 1.259920-0.268542I$ $b=\ \ 0.788681+1.049830I$	$2.07326-3.18618I$	$-7.67391+3.38689I$
$u=\ \ 0.553379+0.552607I$ $a=\ \ 0.682149-0.336978I$ $b=-0.309893+1.117580I$	$1.20372+3.19075I$	$-7.96599-2.39648I$
$u=\ \ 0.553379-0.552607I$ $a=\ \ 0.682149+0.336978I$ $b=-0.309893-1.117580I$	$1.20372-3.19075I$	$-7.96599+2.39648I$
$u=\ \ 1.27911$ $a=-0.341691$ $b=-1.46681$	-6.61379	-33.2250
$u=\ \ 1.263050+0.263271I$ $a=-0.592609+1.202030I$ $b=-0.460993-1.319570I$	$-1.45094-6.17034I$	$-11.3383+10.2345I$
$u=\ \ 1.263050-0.263271I$ $a=-0.592609-1.202030I$ $b=-0.460993+1.319570I$	$-1.45094+6.17034I$	$-11.3383-10.2345I$
$u=-0.651996+0.211857I$ $a=-0.94777-1.32012I$ $b=\ \ 0.470492+0.965476I$	$4.14519-1.98743I$	$-14.0690+3.3402I$
$u=-0.651996-0.211857I$ $a=-0.94777+1.32012I$ $b=\ \ 0.470492-0.965476I$	$4.14519+1.98743I$	$-14.0690-3.3402I$
$u=\ \ 0.217192+0.632961I$ $a=-0.20677+3.33767I$ $b=-0.098692-0.746992I$	$-0.60133+1.33639I$	$-4.28642+1.58322I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 0.217192 - 0.632961I$ $a = -0.20677 - 3.33767I$ $b = -0.098692 + 0.746992I$	$-0.60133 - 1.33639I$	$-4.28642 - 1.58322I$
$u = \ 1.49154 + 0.19389I$ $a = \ 1.012630 + 0.072484I$ $b = \ 0.052423 + 0.594313I$	$-5.52510 - 4.39406I$	$-11.92932 + 2.85111I$
$u = \ 1.49154 - 0.19389I$ $a = \ 1.012630 - 0.072484I$ $b = \ 0.052423 - 0.594313I$	$-5.52510 + 4.39406I$	$-11.92932 - 2.85111I$
$u = -1.52069$ $a = -0.690467$ $b = -0.725037$	-9.46726	-17.7890
$u = -1.68068 + 0.05321I$ $a = -0.989858 - 0.336035I$ $b = -0.311616 + 0.857754I$	$-8.31921 + 1.40875I$	$-3.00892 + 5.68354I$
$u = -1.68068 - 0.05321I$ $a = -0.989858 + 0.336035I$ $b = -0.311616 - 0.857754I$	$-8.31921 - 1.40875I$	$-3.00892 - 5.68354I$
$u = \ 0.258035$ $a = -1.40324$ $b = -1.06896$	-3.15865	-5.44230

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{17}+4u^{14}+\cdots-2u+1)(u^{76}-u^{75}+\cdots+412u-8)$
c_2	$(u^{17}+u^{16}+\cdots-u-1)(u^{76}+2u^{75}+\cdots-3u-1)$
c_3	$(u^{17}+3u^{16}+\cdots+3u+1)(u^{76}-2u^{75}+\cdots-9u+1)$
c_4, c_5	$(u^{17}-10u^{15}+\cdots-4u+1)(u^{76}-u^{75}+\cdots+20u-11)$
c_6	$(u^{17}-u^{16}+\cdots-u+1)(u^{76}+2u^{75}+\cdots-3u-1)$
c_7	$(u^{17}+3u^{16}+\cdots-3u-1)(u^{76}-27u^{74}+\cdots+87u+89)$
c_8	$(u^{17}+4u^{14}+\cdots-8u+1)(u^{76}+u^{75}+\cdots-656u-71)$
c_9	$(u^{17}-10u^{15}+\cdots-4u-1)(u^{76}-u^{75}+\cdots+20u-11)$
c_{10}	$(u^{17}-3u^{16}+\cdots-3u+1)(u^{76}-27u^{74}+\cdots+87u+89)$
c_{11}	$(u^{17}-3u^{16}+\cdots+3u-1)(u^{76}-2u^{75}+\cdots-9u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{17}-8y^{15}+\cdots+12y-1)(y^{76}+7y^{75}+\cdots-193744y+64)$
c_2, c_6	$(y^{17}+11y^{16}+\cdots-11y-1)(y^{76}+38y^{75}+\cdots+9y+1)$
c_3, c_{11}	$(y^{17}+7y^{16}+\cdots-11y-1)(y^{76}+38y^{75}+\cdots-35y+1)$
c_4, c_5, c_9	$(y^{17}-20y^{16}+\cdots+20y-1)(y^{76}-77y^{75}+\cdots-1918y+121)$
c_7, c_{10}	$(y^{17}-17y^{16}+\cdots+13y-1)(y^{76}-54y^{75}+\cdots-315687y+7921)$
c_8	$(y^{17}+12y^{14}+\cdots+64y-1)(y^{76}+3y^{75}+\cdots+35282y+5041)$