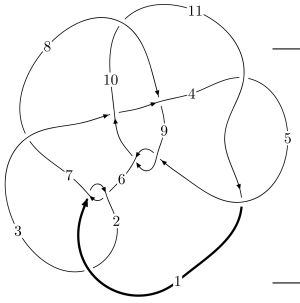
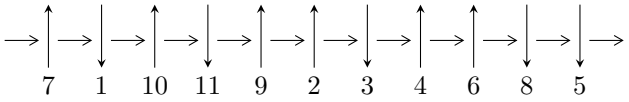
$11a_{189}$ ($K11a_{189}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 6.42009 \times 10^{257} u^{88} - 4.87876 \times 10^{257} u^{87} + \cdots + 2.36068 \times 10^{257} b + 8.83509 \times 10^{259}, \\ & 6.20222 \times 10^{258} u^{88} + 4.18516 \times 10^{258} u^{87} + \cdots + 3.09249 \times 10^{259} a + 2.68994 \times 10^{260}, \\ & u^{89} - 30u^{87} + \cdots - 598u + 131 \rangle \\ I_2^u = \langle & -u^{14} + u^{13} + 5u^{12} - 4u^{11} - 12u^{10} + 9u^9 + 17u^8 - 15u^7 - 14u^6 + 12u^5 + 6u^4 - 7u^3 - u^2 + b, \\ & -7u^{14} + 6u^{13} + \cdots + a + 7, \\ & u^{15} - u^{14} - 6u^{13} + 5u^{12} + 17u^{11} - 13u^{10} - 29u^9 + 24u^8 + 31u^7 - 27u^6 - 20u^5 + 19u^4 + 7u^3 - 7u^2 - u + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 104 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. $\boldsymbol{I_1^u = \langle 6.42 \times 10^{257} u^{88} - 4.88 \times 10^{257} u^{87} + \cdots + 2.36 \times 10^{257} b + 8.84 \times 10^{259},\ 6.20 \times 10^{258} u^{88} + 4.19 \times 10^{258} u^{87} + \cdots + 3.09 \times 10^{259} a + 2.69 \times 10^{260},\ u^{89} - 30u^{87} + \cdots - 598u + 131 \rangle}$

(i) Arc colorings

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

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

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

$$a_8 = \begin{pmatrix} -0.200557u^{88} - 0.135333u^{87} + \cdots + 189.917u - 8.69828 \\ -2.71959u^{88} + 2.06667u^{87} + \cdots + 2244.10u - 374.260 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -2.92015u^{88} + 1.93134u^{87} + \cdots + 2434.01u - 382.958 \\ -2.71959u^{88} + 2.06667u^{87} + \cdots + 2244.10u - 374.260 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 2.84782u^{88} - 2.54786u^{87} + \cdots - 2839.07u + 510.136 \\ 0.594470u^{88} - 0.409964u^{87} + \cdots - 776.183u + 135.349 \end{pmatrix}$$

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

$$a_{10} = \begin{pmatrix} -3.69459u^{88} + 2.73242u^{87} + \cdots + 2749.91u - 445.177 \\ -0.851550u^{88} + 0.449332u^{87} + \cdots + 777.942u - 121.621 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -1.70941u^{88} + 1.84202u^{87} + \cdots + 1720.23u - 327.215 \\ 0.0173264u^{88} + 0.0106093u^{87} + \cdots + 245.379u - 48.9621 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -1.77307u^{88} + 1.96142u^{87} + \cdots + 1963.93u - 375.540 \\ 0.0672428u^{88} - 0.0641570u^{87} + \cdots + 81.4241u - 16.2786 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.967025u^{88} + 1.19947u^{87} + \cdots + 1231.97u - 237.907 \\ -0.376658u^{88} + 0.389535u^{87} + \cdots + 428.290u - 81.3056 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.967025u^{88} + 1.19947u^{87} + \cdots + 1231.97u - 237.907 \\ -0.376658u^{88} + 0.389535u^{87} + \cdots + 428.290u - 81.3056 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.125878u^{88} - 0.576729u^{87} + \cdots - 1166.86u + 242.988$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{89} + u^{88} + \cdots + u + 1$
c_2	$u^{89} + 45u^{88} + \cdots - 7u - 1$
c_3	$u^{89} - 3u^{88} + \cdots + 27u + 1$
c_4, c_{11}	$u^{89} - 30u^{87} + \cdots - 598u + 131$
c_5, c_9	$u^{89} - 27u^{87} + \cdots + 2u - 1$
c_7	$u^{89} - u^{88} + \cdots - 219u + 3737$
c_8	$u^{89} + u^{88} + \cdots - 11u + 3$
c_{10}	$u^{89} - 11u^{88} + \cdots + 2752u - 593$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{89} + 45y^{88} + \cdots - 7y - 1$
c_2	$y^{89} + y^{88} + \cdots - 39y - 1$
c_3	$y^{89} + 3y^{88} + \cdots + 143y - 1$
c_4, c_{11}	$y^{89} - 60y^{88} + \cdots + 397166y - 17161$
c_5, c_9	$y^{89} - 54y^{88} + \cdots + 32y - 1$
c_7	$y^{89} - 43y^{88} + \cdots - 186682455y - 13965169$
c_8	$y^{89} + 5y^{88} + \cdots + 181y - 9$
c_{10}	$y^{89} - 27y^{88} + \cdots + 8974170y - 351649$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.889747+0.452384I$ $a=-0.53880+1.76232I$ $b=\ \ 0.477239+0.302395I$	$-0.63006+8.68382I$	0
$u=-0.889747-0.452384I$ $a=-0.53880-1.76232I$ $b=\ \ 0.477239-0.302395I$	$-0.63006-8.68382I$	0
$u=\ \ 0.910671+0.398320I$ $a=\ \ 0.19557+1.62064I$ $b=-0.403492+0.311347I$	$1.47236-3.97526I$	0
$u=\ \ 0.910671-0.398320I$ $a=\ \ 0.19557-1.62064I$ $b=-0.403492-0.311347I$	$1.47236+3.97526I$	0
$u=-1.016600+0.137245I$ $a=-0.576279-0.124219I$ $b=\ \ 1.28500-1.71908I$	$-0.83265+2.51437I$	0
$u=-1.016600-0.137245I$ $a=-0.576279+0.124219I$ $b=\ \ 1.28500+1.71908I$	$-0.83265-2.51437I$	0
$u=-0.954288+0.091707I$ $a=\ \ 1.90084+0.00472I$ $b=-1.231680+0.032158I$	$0.74745+3.52422I$	0
$u=-0.954288-0.091707I$ $a=\ \ 1.90084-0.00472I$ $b=-1.231680-0.032158I$	$0.74745-3.52422I$	0
$u=\ \ 0.912318+0.259542I$ $a=-0.65851+1.37947I$ $b=-0.259979+0.234024I$	$2.10633-2.24661I$	0
$u=\ \ 0.912318-0.259542I$ $a=-0.65851-1.37947I$ $b=-0.259979-0.234024I$	$2.10633+2.24661I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.250513 + 0.909541I$ $a = 0.558779 + 0.800837I$ $b = -1.012260 - 0.599113I$	$5.28492 + 4.09985I$	0
$u = 0.250513 - 0.909541I$ $a = 0.558779 - 0.800837I$ $b = -1.012260 + 0.599113I$	$5.28492 - 4.09985I$	0
$u = 1.061570 + 0.193566I$ $a = 0.646957 + 0.005889I$ $b = -1.34806 - 1.48412I$	$-3.38961 - 8.10177I$	0
$u = 1.061570 - 0.193566I$ $a = 0.646957 - 0.005889I$ $b = -1.34806 + 1.48412I$	$-3.38961 + 8.10177I$	0
$u = -0.896503 + 0.169355I$ $a = 1.19590 + 1.09495I$ $b = 0.204472 + 0.156620I$	$0.70886 - 2.35289I$	0
$u = -0.896503 - 0.169355I$ $a = 1.19590 - 1.09495I$ $b = 0.204472 - 0.156620I$	$0.70886 + 2.35289I$	0
$u = 1.096800 + 0.024032I$ $a = 0.843907 - 0.225610I$ $b = -0.97444 - 1.43273I$	$-6.30667 + 0.58881I$	0
$u = 1.096800 - 0.024032I$ $a = 0.843907 + 0.225610I$ $b = -0.97444 + 1.43273I$	$-6.30667 - 0.58881I$	0
$u = -0.593963 + 0.659935I$ $a = 0.857622 + 0.233636I$ $b = -0.639884 - 0.077817I$	$-0.74312 + 2.38513I$	0
$u = -0.593963 - 0.659935I$ $a = 0.857622 - 0.233636I$ $b = -0.639884 + 0.077817I$	$-0.74312 - 2.38513I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.018630+0.485863I$ $a=-0.760663+0.983882I$ $b=\ \ 0.506841+0.529809I$	$-2.24793+1.87180I$	0
$u=-1.018630-0.485863I$ $a=-0.760663-0.983882I$ $b=\ \ 0.506841-0.529809I$	$-2.24793-1.87180I$	0
$u=\ \ 0.398710+0.771706I$ $a=\ \ 1.354100-0.383086I$ $b=-0.449816+0.871067I$	$-2.27469-6.43119I$	0
$u=\ \ 0.398710-0.771706I$ $a=\ \ 1.354100+0.383086I$ $b=-0.449816-0.871067I$	$-2.27469+6.43119I$	0
$u=-0.651535+0.565177I$ $a=\ \ 1.57091+0.04849I$ $b=-1.016120+0.181206I$	$0.03725-4.55071I$	0
$u=-0.651535-0.565177I$ $a=\ \ 1.57091-0.04849I$ $b=-1.016120-0.181206I$	$0.03725+4.55071I$	0
$u=\ \ 1.080740+0.451595I$ $a=\ \ 1.089600+0.543941I$ $b=-0.652720+0.801813I$	$-1.82833-5.02044I$	0
$u=\ \ 1.080740-0.451595I$ $a=\ \ 1.089600-0.543941I$ $b=-0.652720-0.801813I$	$-1.82833+5.02044I$	0
$u=\ \ 0.825079+0.852973I$ $a=\ \ 1.013710-0.231765I$ $b=-0.404411+0.990807I$	$-2.85121+0.37716I$	0
$u=\ \ 0.825079-0.852973I$ $a=\ \ 1.013710+0.231765I$ $b=-0.404411-0.990807I$	$-2.85121-0.37716I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.799407+0.019558I$ $a=-0.815403-0.950050I$ $b=\ \ 0.20638-1.47781I$	$0.082135-1.402700I$	$1.000000+0.911438I$
$u=-0.799407-0.019558I$ $a=-0.815403+0.950050I$ $b=\ \ 0.20638+1.47781I$	$0.082135+1.402700I$	$1.000000-0.911438I$
$u=\ \ 0.127992+1.209710I$ $a=\ \ 0.551795+0.738924I$ $b=-0.807284-0.641410I$	$2.99214+5.76178I$	0
$u=\ \ 0.127992-1.209710I$ $a=\ \ 0.551795-0.738924I$ $b=-0.807284+0.641410I$	$2.99214-5.76178I$	0
$u=\ \ 0.758651+0.141414I$ $a=-1.92316+0.06017I$ $b=\ \ 1.166660+0.036708I$	$2.87128+0.16130I$	$2.26530+3.31981I$
$u=\ \ 0.758651-0.141414I$ $a=-1.92316-0.06017I$ $b=\ \ 1.166660-0.036708I$	$2.87128-0.16130I$	$2.26530-3.31981I$
$u=\ \ 0.049165+1.230130I$ $a=-0.559202+0.688042I$ $b=\ \ 0.736512-0.561358I$	$-1.33196-2.44177I$	0
$u=\ \ 0.049165-1.230130I$ $a=-0.559202-0.688042I$ $b=\ \ 0.736512+0.561358I$	$-1.33196+2.44177I$	0
$u=-0.305027+0.698562I$ $a=-0.476739+0.863083I$ $b=\ \ 1.162640-0.546817I$	$4.93245+0.64307I$	$7.39513-2.13919I$
$u=-0.305027-0.698562I$ $a=-0.476739-0.863083I$ $b=\ \ 1.162640+0.546817I$	$4.93245-0.64307I$	$7.39513+2.13919I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.439575+0.615498I$ $a=\ 1.149600-0.115471I$ $b=-0.698187+0.241172I$	$-0.66030+2.49036I$	$1.19350-2.71078I$
$u=-0.439575-0.615498I$ $a=\ 1.149600+0.115471I$ $b=-0.698187-0.241172I$	$-0.66030-2.49036I$	$1.19350+2.71078I$
$u=-1.178450+0.416595I$ $a=\ 0.747568-0.419084I$ $b=-1.21853-1.36797I$	$2.16092+3.60298I$	0
$u=-1.178450-0.416595I$ $a=\ 0.747568+0.419084I$ $b=-1.21853+1.36797I$	$2.16092-3.60298I$	0
$u=-1.216440+0.411059I$ $a=-0.122681+0.284283I$ $b=\ 0.107118+0.672929I$	$-2.06773+2.36101I$	0
$u=-1.216440-0.411059I$ $a=-0.122681-0.284283I$ $b=\ 0.107118-0.672929I$	$-2.06773-2.36101I$	0
$u=\ 1.234760+0.357842I$ $a=\ 1.253570+0.379206I$ $b=-0.889269+0.916124I$	$-4.17367-5.52755I$	0
$u=\ 1.234760-0.357842I$ $a=\ 1.253570-0.379206I$ $b=-0.889269-0.916124I$	$-4.17367+5.52755I$	0
$u=-1.262070+0.281444I$ $a=-1.224250+0.302827I$ $b=\ 0.931584+0.992768I$	$-8.23912+1.98284I$	0
$u=-1.262070-0.281444I$ $a=-1.224250-0.302827I$ $b=\ 0.931584-0.992768I$	$-8.23912-1.98284I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.036670+0.779876I$ $a=-0.780160-0.133305I$ $b=\ \ 0.327917+0.979792I$	$-1.06082+3.18631I$	0
$u=-1.036670-0.779876I$ $a=-0.780160+0.133305I$ $b=\ \ 0.327917-0.979792I$	$-1.06082-3.18631I$	0
$u=\ \ 0.552589+0.430106I$ $a=-1.64524+0.28442I$ $b=\ \ 1.032220+0.058574I$	$2.41961+0.34900I$	$5.67559+0.69336I$
$u=\ \ 0.552589-0.430106I$ $a=-1.64524-0.28442I$ $b=\ \ 1.032220-0.058574I$	$2.41961-0.34900I$	$5.67559-0.69336I$
$u=-0.148725+1.301670I$ $a=-0.530595+0.740434I$ $b=\ \ 0.767567-0.682700I$	$0.33138-10.71180I$	0
$u=-0.148725-1.301670I$ $a=-0.530595-0.740434I$ $b=\ \ 0.767567+0.682700I$	$0.33138+10.71180I$	0
$u=\ \ 1.220660+0.503248I$ $a=-0.890977-0.373556I$ $b=\ \ 1.15837-1.27935I$	$2.20718-9.21559I$	0
$u=\ \ 1.220660-0.503248I$ $a=-0.890977+0.373556I$ $b=\ \ 1.15837+1.27935I$	$2.20718+9.21559I$	0
$u=-1.32135$ $a=\ \ 0.470030$ $b=-1.92284$	-3.01024	0
$u=-1.282490+0.377633I$ $a=-1.306930+0.361809I$ $b=\ \ 0.939471+0.891330I$	$-6.96009+10.29770I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.282490-0.377633I$ $a=-1.306930-0.361809I$ $b=\ \ 0.939471-0.891330I$	$-6.96009-10.29770I$	0
$u=-0.230086+0.571128I$ $a=-1.52959-0.58458I$ $b=\ \ 0.360119+0.766641I$	$-0.07957+2.04453I$	$1.68178-3.11842I$
$u=-0.230086-0.571128I$ $a=-1.52959+0.58458I$ $b=\ \ 0.360119-0.766641I$	$-0.07957-2.04453I$	$1.68178+3.11842I$
$u=\ \ 0.603771+0.027652I$ $a=\ \ 1.30220-1.60314I$ $b=-0.026312-1.201250I$	$-1.77198+6.54158I$	$-1.95190-4.07828I$
$u=\ \ 0.603771-0.027652I$ $a=\ \ 1.30220+1.60314I$ $b=-0.026312+1.201250I$	$-1.77198-6.54158I$	$-1.95190+4.07828I$
$u=\ \ 1.41437+0.17024I$ $a=-0.578378-0.040899I$ $b=\ \ 1.37461-0.73147I$	$-7.33407-4.81411I$	0
$u=\ \ 1.41437-0.17024I$ $a=-0.578378+0.040899I$ $b=\ \ 1.37461+0.73147I$	$-7.33407+4.81411I$	0
$u=\ \ 0.131343+0.540464I$ $a=-1.041380-0.558162I$ $b=\ \ 0.427017+0.464554I$	$0.725380+1.180740I$	$4.24551-4.64635I$
$u=\ \ 0.131343-0.540464I$ $a=-1.041380+0.558162I$ $b=\ \ 0.427017-0.464554I$	$0.725380-1.180740I$	$4.24551+4.64635I$
$u=-1.24203+0.75104I$ $a=-0.513911-0.174215I$ $b=\ \ 0.208309+0.988394I$	$-1.64043+3.35164I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.24203-0.75104I$ $a=-0.513911+0.174215I$ $b=\ \ 0.208309-0.988394I$	$-1.64043-3.35164I$	0
$u=-1.46335+0.12164I$ $a=\ \ 0.480507+0.020198I$ $b=-0.528818-0.273350I$	$-3.43024+0.04199I$	0
$u=-1.46335-0.12164I$ $a=\ \ 0.480507-0.020198I$ $b=-0.528818+0.273350I$	$-3.43024-0.04199I$	0
$u=\ \ 1.34178+0.60423I$ $a=-1.029560-0.209600I$ $b=\ \ 1.12935-1.20094I$	$-0.85217-12.06680I$	0
$u=\ \ 1.34178-0.60423I$ $a=-1.029560+0.209600I$ $b=\ \ 1.12935+1.20094I$	$-0.85217+12.06680I$	0
$u=-1.38287+0.55098I$ $a=\ \ 0.963569-0.160924I$ $b=-1.14535-1.18423I$	$-5.82286+8.54509I$	0
$u=-1.38287-0.55098I$ $a=\ \ 0.963569+0.160924I$ $b=-1.14535+1.18423I$	$-5.82286-8.54509I$	0
$u=-1.36397+0.63423I$ $a=\ \ 1.064370-0.179821I$ $b=-1.12193-1.19463I$	$-3.5526+17.3742I$	0
$u=-1.36397-0.63423I$ $a=\ \ 1.064370+0.179821I$ $b=-1.12193+1.19463I$	$-3.5526-17.3742I$	0
$u=\ \ 1.51493+0.02764I$ $a=-0.466561+0.057922I$ $b=\ \ 0.646933-0.507679I$	$-6.87250+4.47387I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.51493 - 0.02764I$ $a = -0.466561 - 0.057922I$ $b = 0.646933 + 0.507679I$	$-6.87250 - 4.47387I$	0
$u = 1.38354 + 0.69467I$ $a = 0.327847 - 0.218814I$ $b = -0.099863 + 0.997213I$	$-4.70888 + 0.05763I$	0
$u = 1.38354 - 0.69467I$ $a = 0.327847 + 0.218814I$ $b = -0.099863 - 0.997213I$	$-4.70888 - 0.05763I$	0
$u = 1.32097 + 0.83036I$ $a = 0.479237 - 0.302029I$ $b = -0.183639 + 1.056270I$	$-4.21471 - 7.50514I$	0
$u = 1.32097 - 0.83036I$ $a = 0.479237 + 0.302029I$ $b = -0.183639 - 1.056270I$	$-4.21471 + 7.50514I$	0
$u = 1.64763 + 0.24323I$ $a = -0.462216 + 0.038991I$ $b = 0.502599 - 0.125500I$	$-7.01352 - 4.49963I$	0
$u = 1.64763 - 0.24323I$ $a = -0.462216 - 0.038991I$ $b = 0.502599 + 0.125500I$	$-7.01352 + 4.49963I$	0
$u = 0.194550 + 0.184951I$ $a = 4.04115 - 1.45822I$ $b = -0.085459 + 0.814007I$	$-3.77027 + 0.40204I$	$-7.60841 - 1.19387I$
$u = 0.194550 - 0.184951I$ $a = 4.04115 + 1.45822I$ $b = -0.085459 - 0.814007I$	$-3.77027 - 0.40204I$	$-7.60841 + 1.19387I$

II.

$\boldsymbol{I_2^u = \langle -u^{14}+u^{13}+\cdots-u^2+b,\ -7u^{14}+6u^{13}+\cdots+a+7,\ u^{15}-u^{14}+\cdots-u+1\rangle}$

(i) Arc colorings

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

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

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

$$a_8 = \begin{pmatrix} 7u^{14} - 6u^{13} + \cdots - 23u - 7 \\ u^{14} - u^{13} + \cdots + 7u^3 + u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 8u^{14} - 7u^{13} + \cdots - 23u - 7 \\ u^{14} - u^{13} + \cdots + 7u^3 + u^2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -7u^{14} - u^{13} + \cdots - 142u^2 + 31 \\ -u^{13} + u^{12} + \cdots - 6u^2 - u \end{pmatrix}$$

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

$$a_{10} = \begin{pmatrix} -23u^{14} + 17u^{13} + \cdots + 52u + 24 \\ u^{14} - u^{13} + \cdots - 6u - 1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 18u^{14} - u^{13} + \cdots - 8u - 52 \\ -u^{14} + 7u^{12} + \cdots - 25u^2 + 6 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 22u^{14} - u^{13} + \cdots - 9u - 63 \\ -4u^{14} + 27u^{12} + \cdots + u + 13 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -37u^{14} + 15u^{13} + \cdots + 32u + 61 \\ 12u^{14} - 8u^{13} + \cdots - 17u - 12 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -37u^{14} + 15u^{13} + \cdots + 32u + 61 \\ 12u^{14} - 8u^{13} + \cdots - 17u - 12 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -50u^{14} + 49u^{13} + 284u^{12} - 223u^{11} - 761u^{10} + 533u^9 + 1213u^8 - 928u^7 - 1180u^6 + 910u^5 + 666u^4 - 532u^3 - 178u^2 + 116u + 19$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{15}+4u^{13}+8u^{11}-u^{10}+8u^9-3u^8+4u^7-5u^6-5u^4-3u^2-1$
c_2	$u^{15}+8u^{14}+\cdots-6u-1$
c_3	$u^{15}+u^{13}-u^{12}-2u^{11}-2u^9+4u^8+2u^7+u^5-4u^4+1$
c_4	$u^{15}-u^{14}+\cdots-u+1$
c_5	$u^{15}-u^{14}+\cdots-u+1$
c_6	$u^{15}+4u^{13}+8u^{11}+u^{10}+8u^9+3u^8+4u^7+5u^6+5u^4+3u^2+1$
c_7	$u^{15}-4u^{13}+\cdots+2u+1$
c_8	$u^{15}-4u^{11}+u^{10}+2u^8+4u^7-2u^6-2u^4-u^3+u^2+1$
c_9	$u^{15}+u^{14}+\cdots-u-1$
c_{10}	$u^{15}-4u^{13}+\cdots+7u+1$
c_{11}	$u^{15}+u^{14}+\cdots-u-1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{15} + 8y^{14} + \cdots - 6y - 1$
c_2	$y^{15} + 16y^{13} + \cdots - 2y - 1$
c_3	$y^{15} + 2y^{14} + \cdots + 8y^2 - 1$
c_4, c_{11}	$y^{15} - 13y^{14} + \cdots + 15y - 1$
c_5, c_9	$y^{15} - 15y^{14} + \cdots + 13y - 1$
c_7	$y^{15} - 8y^{14} + \cdots - 10y - 1$
c_8	$y^{15} - 8y^{13} + \cdots - 2y - 1$
c_{10}	$y^{15} - 8y^{14} + \cdots + 7y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.906864+0.375829I$ $a=-0.537067+0.586861I$ $b=-0.058211+1.303160I$	$0.29078+2.83345I$	$2.46812-4.57300I$
$u=-0.906864-0.375829I$ $a=-0.537067-0.586861I$ $b=-0.058211-1.303160I$	$0.29078-2.83345I$	$2.46812+4.57300I$
$u=\ 0.786429+0.437105I$ $a=\ 0.904328+0.831344I$ $b=\ 0.187116+0.988050I$	$-1.62575-7.79387I$	$-1.04019+8.56161I$
$u=\ 0.786429-0.437105I$ $a=\ 0.904328-0.831344I$ $b=\ 0.187116-0.988050I$	$-1.62575+7.79387I$	$-1.04019-8.56161I$
$u=\ 0.878542+0.674122I$ $a=\ 0.998231+0.130624I$ $b=-0.106366+0.803002I$	$-3.32177-0.98994I$	$-4.43129+2.79552I$
$u=\ 0.878542-0.674122I$ $a=\ 0.998231-0.130624I$ $b=-0.106366-0.803002I$	$-3.32177+0.98994I$	$-4.43129-2.79552I$
$u=-1.121450+0.726120I$ $a=-0.692219+0.007640I$ $b=\ 0.323008+0.742064I$	$-2.02887+3.34950I$	$-5.67040-7.67904I$
$u=-1.121450-0.726120I$ $a=-0.692219-0.007640I$ $b=\ 0.323008-0.742064I$	$-2.02887-3.34950I$	$-5.67040+7.67904I$
$u=-0.650838+0.048933I$ $a=\ 1.97813+0.68804I$ $b=-1.101810+0.205790I$	$3.03538+0.81175I$	$4.74302-6.70940I$
$u=-0.650838-0.048933I$ $a=\ 1.97813-0.68804I$ $b=-1.101810-0.205790I$	$3.03538-0.81175I$	$4.74302+6.70940I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.600420 + 0.033463I$ $a = -2.87415 + 0.67196I$ $b = 0.930317 + 0.110590I$	$1.74022 + 3.03027I$	$6.59174 - 2.91144I$
$u = 0.600420 - 0.033463I$ $a = -2.87415 - 0.67196I$ $b = 0.930317 - 0.110590I$	$1.74022 - 3.03027I$	$6.59174 + 2.91144I$
$u = -1.41375$ $a = -0.353438$ $b = 1.41559$	-2.66084	10.5800
$u = 1.62063 + 0.25048I$ $a = 0.399460 + 0.007533I$ $b = -0.881854 + 0.297666I$	$-6.62917 - 4.72492I$	$6.04899 + 6.78091I$
$u = 1.62063 - 0.25048I$ $a = 0.399460 - 0.007533I$ $b = -0.881854 - 0.297666I$	$-6.62917 + 4.72492I$	$6.04899 - 6.78091I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{15}+4u^{13}+8u^{11}-u^{10}+8u^9-3u^8+4u^7-5u^6-5u^4-3u^2-1)$ $\cdot(u^{89}+u^{88}+\cdots+u+1)$
c_2	$(u^{15}+8u^{14}+\cdots-6u-1)(u^{89}+45u^{88}+\cdots-7u-1)$
c_3	$(u^{15}+u^{13}-u^{12}-2u^{11}-2u^9+4u^8+2u^7+u^5-4u^4+1)$ $\cdot(u^{89}-3u^{88}+\cdots+27u+1)$
c_4	$(u^{15}-u^{14}+\cdots-u+1)(u^{89}-30u^{87}+\cdots-598u+131)$
c_5	$(u^{15}-u^{14}+\cdots-u+1)(u^{89}-27u^{87}+\cdots+2u-1)$
c_6	$(u^{15}+4u^{13}+8u^{11}+u^{10}+8u^9+3u^8+4u^7+5u^6+5u^4+3u^2+1)$ $\cdot(u^{89}+u^{88}+\cdots+u+1)$
c_7	$(u^{15}-4u^{13}+\cdots+2u+1)(u^{89}-u^{88}+\cdots-219u+3737)$
c_8	$(u^{15}-4u^{11}+u^{10}+2u^8+4u^7-2u^6-2u^4-u^3+u^2+1)$ $\cdot(u^{89}+u^{88}+\cdots-11u+3)$
c_9	$(u^{15}+u^{14}+\cdots-u-1)(u^{89}-27u^{87}+\cdots+2u-1)$
c_{10}	$(u^{15}-4u^{13}+\cdots+7u+1)(u^{89}-11u^{88}+\cdots+2752u-593)$
c_{11}	$(u^{15}+u^{14}+\cdots-u-1)(u^{89}-30u^{87}+\cdots-598u+131)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$(y^{15}+8y^{14}+\cdots-6y-1)(y^{89}+45y^{88}+\cdots-7y-1)$
c_2	$(y^{15}+16y^{13}+\cdots-2y-1)(y^{89}+y^{88}+\cdots-39y-1)$
c_3	$(y^{15}+2y^{14}+\cdots+8y^2-1)(y^{89}+3y^{88}+\cdots+143y-1)$
c_4, c_{11}	$(y^{15}-13y^{14}+\cdots+15y-1)(y^{89}-60y^{88}+\cdots+397166y-17161)$
c_5, c_9	$(y^{15}-15y^{14}+\cdots+13y-1)(y^{89}-54y^{88}+\cdots+32y-1)$
c_7	$(y^{15}-8y^{14}+\cdots-10y-1)$ $\cdot(y^{89}-43y^{88}+\cdots-186682455y-13965169)$
c_8	$(y^{15}-8y^{13}+\cdots-2y-1)(y^{89}+5y^{88}+\cdots+181y-9)$
c_{10}	$(y^{15}-8y^{14}+\cdots+7y-1)(y^{89}-27y^{88}+\cdots+8974170y-351649)$