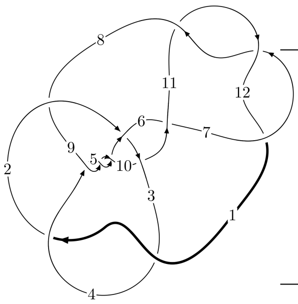
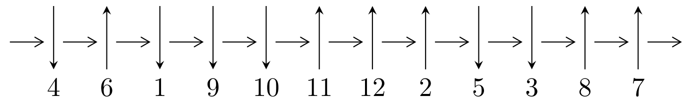
$12a_{1012}$ ($K12a_{1012}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$$8{,}11 \xrightarrow[c_{11}]{} 12 \xrightarrow[c_{7}]{} 7 \xrightarrow[c_{12}]{} 1{,}3 \xrightarrow[c_{3}]{} 4 \xrightarrow[c_{6}]{} 6 \xrightarrow[c_{2}]{} 2 \xrightarrow[c_{10}]{} 10 \xrightarrow[c_{5}]{} 5 \xrightarrow[c_{9}]{} 9 \twoheadrightarrow c_1, c_4, c_8$$

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

$$I_1^u = \langle -2.05532\times 10^{66}u^{82} + 2.51093\times 10^{66}u^{81} + \cdots + 1.60291\times 10^{67}b - 6.72720\times 10^{65},$$
$$1.11417\times 10^{67}u^{82} - 1.22744\times 10^{67}u^{81} + \cdots + 1.60291\times 10^{67}a - 2.52964\times 10^{67},\ u^{83} - 2u^{82} + \cdots - 2u + 1$$
$$I_2^u = \langle 7b - 2u - 1,\ 7a + u + 4,\ u^2 - u + 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 85 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.

$\boldsymbol{I_1^u = \langle -2.06\times10^{66}u^{82}+2.51\times10^{66}u^{81}+\cdots+1.60\times10^{67}b-6.73\times10^{65},\ 1.11\times10^{67}u^{82}-1.23\times10^{67}u^{81}+\cdots+1.60\times10^{67}a-2.53\times10^{67},\ u^{83}-2u^{82}+\cdots-2u+1\rangle}$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -u \\ u^3+u \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} -0.695089u^{82}+0.765754u^{81}+\cdots-0.805908u+1.57815 \\ 0.128224u^{82}-0.156648u^{81}+\cdots-0.183076u+0.0419686 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.506927u^{82}+0.383641u^{81}+\cdots+0.301338u+0.370054 \\ 0.187208u^{82}-0.231332u^{81}+\cdots+0.176599u+0.0714091 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^3-2u \\ u^3+u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.771316u^{82}+0.876988u^{81}+\cdots-1.09248u+1.44647 \\ 0.168393u^{82}-0.226519u^{81}+\cdots-0.0270658u+0.0924313 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 2.08991u^{82}-3.13988u^{81}+\cdots-3.52603u-2.11892 \\ -1.17284u^{82}+1.89402u^{81}+\cdots+3.09591u+0.772956 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1.18628u^{82}-3.04794u^{81}+\cdots-5.78944u+1.01993 \\ -0.959505u^{82}+1.55012u^{81}+\cdots+4.15771u-0.726348 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1.32283u^{82}-1.63143u^{81}+\cdots+2.70703u-4.79684 \\ -1.24263u^{82}+0.911270u^{81}+\cdots-0.275552u+2.26730 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.167112u^{82}+1.45471u^{81}+\cdots-2.64274u+0.360927$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3	$u^{83} - 3u^{82} + \cdots + 285u + 49$
c_2	$u^{83} - 7u^{82} + \cdots + 1260u - 196$
c_4, c_5, c_9	$u^{83} - 2u^{82} + \cdots + 2u^2 - 1$
c_6	$u^{83} + 2u^{82} + \cdots + 762u + 65$
c_7, c_{11}, c_{12}	$u^{83} - 2u^{82} + \cdots - 2u + 1$
c_8	$7(7u^{83} + 28u^{82} + \cdots + 4430074u + 1636183)$
c_{10}	$7(7u^{83} - 49u^{82} + \cdots + 141221u - 21311)$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3	$y^{83} - 63y^{82} + \cdots - 5505y - 2401$
c_2	$y^{83} + 15y^{82} + \cdots - 873768y - 38416$
c_4, c_5, c_9	$y^{83} - 84y^{82} + \cdots + 4y - 1$
c_6	$y^{83} - 12y^{82} + \cdots + 353924y - 4225$
c_7, c_{11}, c_{12}	$y^{83} + 72y^{82} + \cdots + 4y - 1$
c_8	$49 \cdot (49y^{83} + 2716y^{82} + \cdots - 90553024520728y - 2677094809489)$
c_{10}	$49(49y^{83} - 371y^{82} + \cdots + 1.72569 \times 10^{10}y - 4.54159 \times 10^{8})$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.475006 + 0.859601I$ $a = 1.067640 - 0.053405I$ $b = -1.19843 - 0.84086I$	$-10.20070 - 8.08224I$	0
$u = 0.475006 - 0.859601I$ $a = 1.067640 + 0.053405I$ $b = -1.19843 + 0.84086I$	$-10.20070 + 8.08224I$	0
$u = 0.064627 + 1.021110I$ $a = -0.097879 - 0.830642I$ $b = 0.816969 + 0.914245I$	$-5.67104 - 3.00245I$	0
$u = 0.064627 - 1.021110I$ $a = -0.097879 + 0.830642I$ $b = 0.816969 - 0.914245I$	$-5.67104 + 3.00245I$	0
$u = -0.514621 + 0.829465I$ $a = 0.878968 - 0.069917I$ $b = -0.828395 + 0.694970I$	$-2.74113 + 4.19441I$	0
$u = -0.514621 - 0.829465I$ $a = 0.878968 + 0.069917I$ $b = -0.828395 - 0.694970I$	$-2.74113 - 4.19441I$	0
$u = -0.887144 + 0.240007I$ $a = -0.903715 - 0.450278I$ $b = 0.644498 - 0.077979I$	$-7.32946 + 1.81939I$	$-9.08409 - 3.25302I$
$u = -0.887144 - 0.240007I$ $a = -0.903715 + 0.450278I$ $b = 0.644498 + 0.077979I$	$-7.32946 - 1.81939I$	$-9.08409 + 3.25302I$
$u = -0.196848 + 1.067180I$ $a = -0.135156 + 0.515710I$ $b = 0.433799 - 0.853225I$	$0.117492 + 0.387913I$	0
$u = -0.196848 - 1.067180I$ $a = -0.135156 - 0.515710I$ $b = 0.433799 + 0.853225I$	$0.117492 - 0.387913I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.485786 + 0.988027I$ $a = 0.446200 + 0.372854I$ $b = -0.791315 - 0.421140I$	$-9.68489 - 6.70543I$	0
$u = -0.485786 - 0.988027I$ $a = 0.446200 - 0.372854I$ $b = -0.791315 + 0.421140I$	$-9.68489 + 6.70543I$	0
$u = 0.831753 + 0.330980I$ $a = -0.300588 + 1.183040I$ $b = 0.605846 - 0.630936I$	$-0.32503 + 3.27303I$	$-2.53912 - 7.98791I$
$u = 0.831753 - 0.330980I$ $a = -0.300588 - 1.183040I$ $b = 0.605846 + 0.630936I$	$-0.32503 - 3.27303I$	$-2.53912 + 7.98791I$
$u = 0.648808 + 0.920395I$ $a = 0.494724 + 0.001353I$ $b = -0.506519 - 0.199456I$	$-1.94282 + 1.87194I$	0
$u = 0.648808 - 0.920395I$ $a = 0.494724 - 0.001353I$ $b = -0.506519 + 0.199456I$	$-1.94282 - 1.87194I$	0
$u = -0.804514 + 0.287110I$ $a = -0.53594 - 1.81584I$ $b = 1.012310 + 0.946985I$	$-1.01980 - 8.80520I$	$-1.34312 + 8.67899I$
$u = -0.804514 - 0.287110I$ $a = -0.53594 + 1.81584I$ $b = 1.012310 - 0.946985I$	$-1.01980 + 8.80520I$	$-1.34312 - 8.67899I$
$u = 0.805730 + 0.269407I$ $a = -0.86968 + 2.12116I$ $b = 1.36813 - 1.02151I$	$-8.3267 + 12.6232I$	$-3.82071 - 7.57574I$
$u = 0.805730 - 0.269407I$ $a = -0.86968 - 2.12116I$ $b = 1.36813 + 1.02151I$	$-8.3267 - 12.6232I$	$-3.82071 + 7.57574I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.315485 + 1.137810I$ $a = 0.011028 - 0.251257I$ $b = 0.149783 + 0.594962I$	$-0.96189 + 3.32369I$	0
$u = 0.315485 - 1.137810I$ $a = 0.011028 + 0.251257I$ $b = 0.149783 - 0.594962I$	$-0.96189 - 3.32369I$	0
$u = 0.721078 + 0.104434I$ $a = 0.192013 - 0.856291I$ $b = -0.541096 + 0.418060I$	$2.18731 + 0.45631I$	$4.25707 + 1.46675I$
$u = 0.721078 - 0.104434I$ $a = 0.192013 + 0.856291I$ $b = -0.541096 - 0.418060I$	$2.18731 - 0.45631I$	$4.25707 - 1.46675I$
$u = 0.697920 + 0.208237I$ $a = -0.06509 - 2.19317I$ $b = -1.001020 + 0.864477I$	$-3.51395 + 6.33078I$	$-1.40613 - 6.95376I$
$u = 0.697920 - 0.208237I$ $a = -0.06509 + 2.19317I$ $b = -1.001020 - 0.864477I$	$-3.51395 - 6.33078I$	$-1.40613 + 6.95376I$
$u = -0.705904 + 0.173366I$ $a = -0.00653 + 1.68655I$ $b = -0.751506 - 0.750263I$	$2.69458 - 3.85814I$	$3.94212 + 7.39409I$
$u = -0.705904 - 0.173366I$ $a = -0.00653 - 1.68655I$ $b = -0.751506 + 0.750263I$	$2.69458 + 3.85814I$	$3.94212 - 7.39409I$
$u = -0.201198 + 1.284730I$ $a = -5.05419 + 0.23869I$ $b = 0.47343 - 6.07002I$	$-9.49174 - 2.91911I$	0
$u = -0.201198 - 1.284730I$ $a = -5.05419 - 0.23869I$ $b = 0.47343 + 6.07002I$	$-9.49174 + 2.91911I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.153067 + 1.295210I$ $a = -1.46523 - 0.72615I$ $b = -0.708458 + 1.122390I$	$-4.25517 + 1.80505I$	0
$u = 0.153067 - 1.295210I$ $a = -1.46523 + 0.72615I$ $b = -0.708458 - 1.122390I$	$-4.25517 - 1.80505I$	0
$u = -0.103113 + 1.315490I$ $a = -1.137520 + 0.803248I$ $b = -0.446110 - 0.029511I$	$-4.75098 + 0.70977I$	0
$u = -0.103113 - 1.315490I$ $a = -1.137520 - 0.803248I$ $b = -0.446110 + 0.029511I$	$-4.75098 - 0.70977I$	0
$u = -0.246151 + 1.332300I$ $a = -0.65866 - 1.28463I$ $b = 1.63452 - 0.64490I$	$-8.26726 - 2.71936I$	0
$u = -0.246151 - 1.332300I$ $a = -0.65866 + 1.28463I$ $b = 1.63452 + 0.64490I$	$-8.26726 + 2.71936I$	0
$u = 0.214045 + 1.342100I$ $a = 1.45885 + 0.68329I$ $b = -0.32165 - 2.41633I$	$-5.15605 + 3.28846I$	0
$u = 0.214045 - 1.342100I$ $a = 1.45885 - 0.68329I$ $b = -0.32165 + 2.41633I$	$-5.15605 - 3.28846I$	0
$u = 0.088800 + 1.356500I$ $a = -1.27024 - 0.97335I$ $b = -0.624479 - 0.521635I$	$-11.14690 - 2.43409I$	0
$u = 0.088800 - 1.356500I$ $a = -1.27024 + 0.97335I$ $b = -0.624479 + 0.521635I$	$-11.14690 + 2.43409I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.283140 + 1.336130I$ $a = 0.505201 + 0.841714I$ $b = 0.890946 - 0.298623I$	$-2.35239 + 4.06574I$	0
$u = 0.283140 - 1.336130I$ $a = 0.505201 - 0.841714I$ $b = 0.890946 + 0.298623I$	$-2.35239 - 4.06574I$	0
$u = -0.176964 + 1.360150I$ $a = -0.590958 + 0.069979I$ $b = -1.215720 + 0.395720I$	$-7.28744 - 1.94916I$	0
$u = -0.176964 - 1.360150I$ $a = -0.590958 - 0.069979I$ $b = -1.215720 - 0.395720I$	$-7.28744 + 1.94916I$	0
$u = 0.562967 + 0.258206I$ $a = 0.91272 - 2.17851I$ $b = -0.502187 - 0.190942I$	$-8.27455 + 3.42400I$	$-6.60317 - 6.41709I$
$u = 0.562967 - 0.258206I$ $a = 0.91272 + 2.17851I$ $b = -0.502187 + 0.190942I$	$-8.27455 - 3.42400I$	$-6.60317 + 6.41709I$
$u = -0.593523 + 0.159631I$ $a = 2.10426 - 0.35004I$ $b = -1.068470 + 0.631484I$	$-3.63121 + 0.36859I$	$0.14544 + 2.24269I$
$u = -0.593523 - 0.159631I$ $a = 2.10426 + 0.35004I$ $b = -1.068470 - 0.631484I$	$-3.63121 - 0.36859I$	$0.14544 - 2.24269I$
$u = -0.227049 + 1.369170I$ $a = 0.45671 - 1.47672I$ $b = 0.458092 + 0.749861I$	$-6.58085 - 5.34361I$	0
$u = -0.227049 - 1.369170I$ $a = 0.45671 + 1.47672I$ $b = 0.458092 - 0.749861I$	$-6.58085 + 5.34361I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.612038$ $a = 13.8516$ $b = -8.20930$	-5.55052	56.4320
$u = 0.024059 + 0.608715I$ $a = 0.522848 - 0.442561I$ $b = 0.816972 + 0.871424I$	$-5.56598 - 3.04650I$	$-5.26168 + 2.94884I$
$u = 0.024059 - 0.608715I$ $a = 0.522848 + 0.442561I$ $b = 0.816972 - 0.871424I$	$-5.56598 + 3.04650I$	$-5.26168 - 2.94884I$
$u = -0.284196 + 1.364560I$ $a = 1.05657 - 1.05386I$ $b = 0.944479 + 0.673054I$	$-2.17553 - 7.44915I$	0
$u = -0.284196 - 1.364560I$ $a = 1.05657 + 1.05386I$ $b = 0.944479 - 0.673054I$	$-2.17553 + 7.44915I$	0
$u = 0.171165 + 1.383490I$ $a = -1.236300 + 0.358353I$ $b = -1.122770 - 0.073322I$	$-14.2618 + 1.5244I$	0
$u = 0.171165 - 1.383490I$ $a = -1.236300 - 0.358353I$ $b = -1.122770 + 0.073322I$	$-14.2618 - 1.5244I$	0
$u = 0.226585 + 1.387380I$ $a = 0.14113 + 1.87100I$ $b = 0.487387 - 0.142506I$	$-13.4949 + 6.3486I$	0
$u = 0.226585 - 1.387380I$ $a = 0.14113 - 1.87100I$ $b = 0.487387 + 0.142506I$	$-13.4949 - 6.3486I$	0
$u = 0.280416 + 1.379490I$ $a = 1.37093 + 1.32206I$ $b = 1.109010 - 0.804345I$	$-8.55319 + 9.88755I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.280416 - 1.379490I$ $a = 1.37093 - 1.32206I$ $b = 1.109010 + 0.804345I$	$-8.55319 - 9.88755I$	0
$u = -0.556007 + 0.198624I$ $a = 0.64889 + 2.30970I$ $b = -0.361053 - 0.390068I$	$-1.60606 - 2.43462I$	$-4.11520 + 8.58615I$
$u = -0.556007 - 0.198624I$ $a = 0.64889 - 2.30970I$ $b = -0.361053 + 0.390068I$	$-1.60606 + 2.43462I$	$-4.11520 - 8.58615I$
$u = 0.540026 + 0.095845I$ $a = -0.08882 - 4.08497I$ $b = 0.11563 + 1.93050I$	$-0.576070 + 0.516826I$	$3.2266 + 14.4230I$
$u = 0.540026 - 0.095845I$ $a = -0.08882 + 4.08497I$ $b = 0.11563 - 1.93050I$	$-0.576070 - 0.516826I$	$3.2266 - 14.4230I$
$u = 0.32617 + 1.41892I$ $a = -0.77942 - 1.59755I$ $b = -1.52531 + 1.07291I$	$-13.7023 + 16.7170I$	0
$u = 0.32617 - 1.41892I$ $a = -0.77942 + 1.59755I$ $b = -1.52531 - 1.07291I$	$-13.7023 - 16.7170I$	0
$u = -0.32343 + 1.42557I$ $a = -0.73068 + 1.30369I$ $b = -1.19487 - 1.02795I$	$-6.4767 - 12.8862I$	0
$u = -0.32343 - 1.42557I$ $a = -0.73068 - 1.30369I$ $b = -1.19487 + 1.02795I$	$-6.4767 + 12.8862I$	0
$u = 0.32635 + 1.44037I$ $a = -0.511432 - 0.981821I$ $b = -0.839069 + 0.790583I$	$-5.96457 + 7.44234I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.32635 - 1.44037I$ $a = -0.511432 + 0.981821I$ $b = -0.839069 - 0.790583I$	$-5.96457 - 7.44234I$	0
$u = -0.35997 + 1.43695I$ $a = 0.040198 + 0.863532I$ $b = -0.714170 - 0.214535I$	$-12.69990 - 2.69645I$	0
$u = -0.35997 - 1.43695I$ $a = 0.040198 - 0.863532I$ $b = -0.714170 + 0.214535I$	$-12.69990 + 2.69645I$	0
$u = 0.363932 + 0.344823I$ $a = 0.666144 - 0.751661I$ $b = 1.099950 - 0.265568I$	$-8.91963 - 0.57767I$	$-8.53729 - 2.31769I$
$u = 0.363932 - 0.344823I$ $a = 0.666144 + 0.751661I$ $b = 1.099950 + 0.265568I$	$-8.91963 + 0.57767I$	$-8.53729 + 2.31769I$
$u = 0.01649 + 1.50014I$ $a = 0.405278 + 0.345940I$ $b = 1.39329 + 0.42487I$	$-18.0876 - 7.1086I$	0
$u = 0.01649 - 1.50014I$ $a = 0.405278 - 0.345940I$ $b = 1.39329 - 0.42487I$	$-18.0876 + 7.1086I$	0
$u = -0.01547 + 1.51995I$ $a = 0.229511 - 0.148482I$ $b = 1.151530 - 0.202710I$	$-10.80190 + 2.92909I$	0
$u = -0.01547 - 1.51995I$ $a = 0.229511 + 0.148482I$ $b = 1.151530 + 0.202710I$	$-10.80190 - 2.92909I$	0
$u = 0.146993 + 0.405037I$ $a = 0.805858 + 0.297081I$ $b = 0.282795 - 0.494464I$	$0.039086 + 0.986146I$	$0.86398 - 6.49458I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.146993 - 0.405037I$ $a = 0.805858 - 0.297081I$ $b = 0.282795 + 0.494464I$	$0.039086 - 0.986146I$	$0.86398 + 6.49458I$
$u = -0.296698 + 0.219856I$ $a = 0.096577 + 0.687464I$ $b = 0.977900 - 0.039618I$	$-2.38293 + 0.13615I$	$-6.35328 + 3.24648I$
$u = -0.296698 - 0.219856I$ $a = 0.096577 - 0.687464I$ $b = 0.977900 + 0.039618I$	$-2.38293 - 0.13615I$	$-6.35328 - 3.24648I$

II. $\boldsymbol{I_2^u = \langle 7b - 2u - 1,\ 7a + u + 4,\ u^2 - u + 1\rangle}$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 1 \\ -u+1 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u \\ u-1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u \\ -u+2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -\frac{1}{7}u - \frac{4}{7} \\ \frac{2}{7}u + \frac{1}{7} \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -\frac{8}{7}u - \frac{4}{7} \\ \frac{9}{7}u - \frac{13}{7} \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -2u+1 \\ u-1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -\frac{1}{7}u - \frac{4}{7} \\ \frac{2}{7}u + \frac{1}{7} \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} \frac{11}{49}u + \frac{51}{49} \\ -\frac{8}{49}u + \frac{3}{49} \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -\frac{47}{49}u - \frac{13}{49} \\ \frac{52}{49}u - \frac{44}{49} \end{pmatrix}$$
$$a_9 = \begin{pmatrix} \frac{24}{49}u - \frac{9}{49} \\ \frac{36}{49}u + \frac{11}{49} \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{340}{49}u + \frac{299}{49}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u-1)^2$
c_2	u^2
c_3	$(u+1)^2$
c_4, c_5, c_6 c_{11}, c_{12}	u^2-u+1
c_7, c_9	u^2+u+1
c_8	$7(7u^2-3u+3)$
c_{10}	$7(7u^2-4u+1)$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3	$(y-1)^2$
c_2	y^2
c_4, c_5, c_6 c_7, c_9, c_{11} c_{12}	$y^2 + y + 1$
c_8	$49(49y^2 + 33y + 9)$
c_{10}	$49(49y^2 - 2y + 1)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.500000 + 0.866025I$ $a = -0.642857 - 0.123718I$ $b = 0.285714 + 0.247436I$	$-1.64493 + 2.02988I$	$2.63265 - 6.00916I$
$u = 0.500000 - 0.866025I$ $a = -0.642857 + 0.123718I$ $b = 0.285714 - 0.247436I$	$-1.64493 - 2.02988I$	$2.63265 + 6.00916I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^2)(u^{83}-3u^{82}+\cdots+285u+49)$
c_2	$u^2(u^{83}-7u^{82}+\cdots+1260u-196)$
c_3	$((u+1)^2)(u^{83}-3u^{82}+\cdots+285u+49)$
c_4, c_5	$(u^2-u+1)(u^{83}-2u^{82}+\cdots+2u^2-1)$
c_6	$(u^2-u+1)(u^{83}+2u^{82}+\cdots+762u+65)$
c_7	$(u^2+u+1)(u^{83}-2u^{82}+\cdots-2u+1)$
c_8	$49(7u^2-3u+3)(7u^{83}+28u^{82}+\cdots+4430074u+1636183)$
c_9	$(u^2+u+1)(u^{83}-2u^{82}+\cdots+2u^2-1)$
c_{10}	$49(7u^2-4u+1)(7u^{83}-49u^{82}+\cdots+141221u-21311)$
c_{11}, c_{12}	$(u^2-u+1)(u^{83}-2u^{82}+\cdots-2u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_3	$((y-1)^2)(y^{83} - 63y^{82} + \cdots - 5505y - 2401)$
c_2	$y^2(y^{83} + 15y^{82} + \cdots - 873768y - 38416)$
c_4, c_5, c_9	$(y^2 + y + 1)(y^{83} - 84y^{82} + \cdots + 4y - 1)$
c_6	$(y^2 + y + 1)(y^{83} - 12y^{82} + \cdots + 353924y - 4225)$
c_7, c_{11}, c_{12}	$(y^2 + y + 1)(y^{83} + 72y^{82} + \cdots + 4y - 1)$
c_8	$2401(49y^2 + 33y + 9)$ $\cdot (49y^{83} + 2716y^{82} + \cdots - 90553024520728y - 2677094809489)$
c_{10}	$2401(49y^2 - 2y + 1)$ $\cdot (49y^{83} - 371y^{82} + \cdots + 17256948803y - 454158721)$