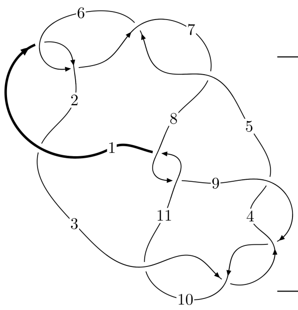
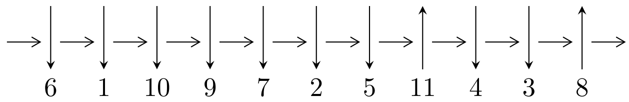
$11a_{229}$ ($K11a_{229}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{35} - u^{34} + \cdots - u^2 + 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 35 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. $I_1^u = \langle u^{35} - u^{34} + \cdots - u^2 + 1 \rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^3 \\ u^5 - u^3 + u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^4 - u^2 + 1 \\ u^4 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u^{11} - 2u^9 + 4u^7 - 4u^5 + 3u^3 \\ u^{11} - u^9 + 2u^7 - u^5 - u^3 + u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^{18} - 3u^{16} + 8u^{14} - 13u^{12} + 17u^{10} - 15u^8 + 10u^6 - 2u^4 - u^2 + 1 \\ u^{18} - 2u^{16} + 5u^{14} - 6u^{12} + 5u^{10} - 2u^8 - 2u^6 + 4u^4 - u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^{34} + 5u^{32} + \cdots - u^2 + 1 \\ -u^{34} + 4u^{32} + \cdots + 4u^6 - u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^{19} - 2u^{17} + 6u^{15} - 8u^{13} + 11u^{11} - 10u^9 + 8u^7 - 4u^5 + 3u^3 \\ -u^{21} + 3u^{19} + \cdots - u^3 + u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^{19} - 2u^{17} + 6u^{15} - 8u^{13} + 11u^{11} - 10u^9 + 8u^7 - 4u^5 + 3u^3 \\ -u^{21} + 3u^{19} + \cdots - u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= 4u^{33} - 4u^{32} - 16u^{31} + 20u^{30} + 64u^{29} - 76u^{28} - 160u^{27} + 204u^{26} + 356u^{25} - 440u^{24} - 624u^{23} + 772u^{22} + 948u^{21} - 1120u^{20} - 1204u^{19} + 1336u^{18} + 1308u^{17} - 1304u^{16} - 1180u^{15} + 984u^{14} + 888u^{13} - 528u^{12} - 512u^{11} + 128u^{10} + 216u^9 + 80u^8 - 40u^7 - 96u^6 - 16u^5 + 32u^4 + 16u^3 + 4u - 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{35} - u^{34} + \cdots - u^2 + 1$
c_2, c_5, c_7	$u^{35} + 9u^{34} + \cdots + 2u + 1$
c_3, c_4, c_9 c_{10}	$u^{35} - u^{34} + \cdots + 2u + 1$
c_8, c_{11}	$u^{35} + 7u^{34} + \cdots + 8u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{35} - 9y^{34} + \cdots + 2y - 1$
c_2, c_5, c_7	$y^{35} + 35y^{34} + \cdots + 18y - 1$
c_3, c_4, c_9 c_{10}	$y^{35} + 39y^{34} + \cdots + 2y - 1$
c_8, c_{11}	$y^{35} + 15y^{34} + \cdots - 14y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.962624 + 0.303218I$	$-3.18298 - 4.64820I$	$-10.32267 + 8.03074I$
$u = 0.962624 - 0.303218I$	$-3.18298 + 4.64820I$	$-10.32267 - 8.03074I$
$u = 0.966916 + 0.178086I$	$2.77604 + 1.42603I$	$-8.39342 + 0.40844I$
$u = 0.966916 - 0.178086I$	$2.77604 - 1.42603I$	$-8.39342 - 0.40844I$
$u = -0.949626 + 0.247846I$	$-3.51316 + 0.86929I$	$-12.03394 - 0.57851I$
$u = -0.949626 - 0.247846I$	$-3.51316 - 0.86929I$	$-12.03394 + 0.57851I$
$u = -0.982664 + 0.344890I$	$3.73413 + 7.15489I$	$-6.21404 - 6.89294I$
$u = -0.982664 - 0.344890I$	$3.73413 - 7.15489I$	$-6.21404 + 6.89294I$
$u = -0.625205 + 0.585600I$	$8.06862 + 2.14485I$	$0.03823 - 3.39579I$
$u = -0.625205 - 0.585600I$	$8.06862 - 2.14485I$	$0.03823 + 3.39579I$
$u = 0.826215 + 0.817094I$	$3.13686 - 1.06908I$	$-6.00348 + 2.72542I$
$u = 0.826215 - 0.817094I$	$3.13686 + 1.06908I$	$-6.00348 - 2.72542I$
$u = -0.899785 + 0.739431I$	$7.92591 + 2.80573I$	$-2.67118 - 2.92017I$
$u = -0.899785 - 0.739431I$	$7.92591 - 2.80573I$	$-2.67118 + 2.92017I$
$u = -0.815673 + 0.849045I$	$4.17141 - 2.71608I$	$-3.22921 + 3.46654I$
$u = -0.815673 - 0.849045I$	$4.17141 + 2.71608I$	$-3.22921 - 3.46654I$
$u = 0.815012 + 0.872021I$	$11.60150 + 5.24626I$	$-0.28520 - 2.12331I$
$u = 0.815012 - 0.872021I$	$11.60150 - 5.24626I$	$-0.28520 + 2.12331I$
$u = -0.895926 + 0.820169I$	$7.25366 + 3.06074I$	$0.53879 - 2.89823I$
$u = -0.895926 - 0.820169I$	$7.25366 - 3.06074I$	$0.53879 + 2.89823I$
$u = 0.950191 + 0.783875I$	$2.75474 - 4.93362I$	$-6.65730 + 2.46852I$
$u = 0.950191 - 0.783875I$	$2.75474 + 4.93362I$	$-6.65730 - 2.46852I$
$u = 0.909352 + 0.854322I$	$15.6759 - 3.1687I$	$1.84371 + 2.55774I$
$u = 0.909352 - 0.854322I$	$15.6759 + 3.1687I$	$1.84371 - 2.55774I$
$u = -0.968524 + 0.797329I$	$3.69689 + 8.85353I$	$-4.28524 - 8.34437I$
$u = -0.968524 - 0.797329I$	$3.69689 - 8.85353I$	$-4.28524 + 8.34437I$
$u = 0.979984 + 0.808991I$	$11.0850 - 11.4893I$	$-1.26828 + 6.96489I$
$u = 0.979984 - 0.808991I$	$11.0850 + 11.4893I$	$-1.26828 - 6.96489I$
$u = 0.616861 + 0.373834I$	$0.93698 - 1.48910I$	$-0.78415 + 6.55847I$
$u = 0.616861 - 0.373834I$	$0.93698 + 1.48910I$	$-0.78415 - 6.55847I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.163878+0.627930I$	$6.28325-3.67948I$	$-0.34607+2.46375I$
$u=-0.163878-0.627930I$	$6.28325+3.67948I$	$-0.34607-2.46375I$
$u=-0.621610$	-0.791732	-13.6740
$u=\quad 0.084932+0.544457I$	$-0.58473+1.62274I$	$-4.08967-4.27499I$
$u=\quad 0.084932-0.544457I$	$-0.58473-1.62274I$	$-4.08967+4.27499I$

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{35} - u^{34} + \cdots - u^2 + 1$
c_2, c_5, c_7	$u^{35} + 9u^{34} + \cdots + 2u + 1$
c_3, c_4, c_9 c_{10}	$u^{35} - u^{34} + \cdots + 2u + 1$
c_8, c_{11}	$u^{35} + 7u^{34} + \cdots + 8u + 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{35} - 9y^{34} + \cdots + 2y - 1$
c_2, c_5, c_7	$y^{35} + 35y^{34} + \cdots + 18y - 1$
c_3, c_4, c_9 c_{10}	$y^{35} + 39y^{34} + \cdots + 2y - 1$
c_8, c_{11}	$y^{35} + 15y^{34} + \cdots - 14y - 1$