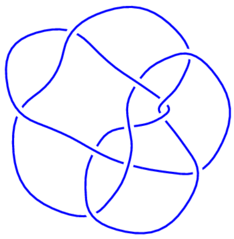
$11n_{175}$ ($K11n_{175}$)



1

Arc Sequences

$\to \downarrow_{5} \to \downarrow_{8} \to \downarrow_{1} \to \downarrow_{10} \to \uparrow_{9} \to \downarrow_{1} \to \downarrow_{4} \to \uparrow_{6} \to \downarrow_{2} \to \downarrow_{4} \to \downarrow_{8} \to$

Solving Sequence

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

Representation Ideals

$$I = \bigcap_{i=1}^{3} I_i^u$$

$$I_1^u = \langle u^{10} - 8u^9 + 28u^8 - 63u^7 + 113u^6 - 161u^5 + 168u^4 - 135u^3 + 83u^2 - 26u + 3,$$
$$173u^9 - 1298u^8 + \cdots + 257b - 1567,\ 1567u^9 - 12017u^8 + \cdots + 771a - 13739\rangle$$
$$I_2^u = \langle u^{18} + 13u^{17} + \cdots + 62u - 52,$$
$$-703924024189u^{17} - 7916698485691u^{16} + \cdots + 3191666994558b + 20686964097064,$$
$$-5171741024266u^{17} - 58081621001001u^{16} + \cdots + 4149167092954a + 143944519422685\rangle$$
$$I_3^u = \langle b^{24} + b^{23} + \cdots + 198b + 93,\ 1.89380 \times 10^{32}u + 1.71568 \times 10^{30}b^{23} + \cdots + 3.66454 \times 10^{32}b + 3.09548 \times 10^{32},$$
$$1.15191 \times 10^{31}b^{23} - 1.35208 \times 10^{30}b^{22} + \cdots + 1.89380 \times 10^{32}a + 1.30204 \times 10^{33}\rangle$$

There are 3 irreducible components with 52 representations.

[1]The knot diagram image is adapter from "C. Livingston and A. H. Moore, KnotInfo: Table of Knot Invariants, http://www.indiana.edu/ knotinfo"

I. $I^u_1 = \langle u^{10} - 8u^9 + \cdots - 26u + 3,\ 173u^9 - 1298u^8 + \cdots + 257b - 1567,\ 1567u^9 - 12017u^8 + \cdots + 771a - 13739\rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_4 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_3 = \begin{pmatrix}u\\u\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-2.03243u^9 + 15.5863u^8 + \cdots - 107.450u + 17.8197\\-0.673152u^9 + 5.05058u^8 + \cdots - 35.0233u + 6.09728\end{pmatrix}$$
$$a_2 = \begin{pmatrix}1.74060u^9 - 13.3100u^8 + \cdots + 93.3995u - 17.4423\\0.614786u^9 - 4.59533u^8 + \cdots + 28.8132u - 5.22179\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-2.03243u^9 + 15.5863u^8 + \cdots - 107.450u + 17.8197\\-0.338521u^9 + 2.84047u^8 + \cdots - 23.6187u + 4.07782\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-2.37095u^9 + 18.4267u^8 + \cdots - 131.069u + 21.8975\\-0.338521u^9 + 2.84047u^8 + \cdots - 23.6187u + 4.07782\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-2.00908u^9 + 15.8042u^8 + \cdots - 121.166u + 24.4695\\-0.268482u^9 + 2.49416u^8 + \cdots - 28.7665u + 6.02724\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}-2.00908u^9 + 15.8042u^8 + \cdots - 121.166u + 24.4695\\-0.614786u^9 + 4.59533u^8 + \cdots - 27.8132u + 5.22179\end{pmatrix}$$
$$a_5 = \begin{pmatrix}2.76135u^9 - 21.0052u^8 + \cdots + 140.208u - 25.0869\\0.614786u^9 - 4.59533u^8 + \cdots + 26.8132u - 4.22179\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-2.95720u^9 + 23.0661u^8 + \cdots - 174.646u + 35.3580\\-0.996109u^9 + 7.36965u^8 + \cdots - 46.7860u + 8.94163\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-2.95720u^9 + 23.0661u^8 + \cdots - 174.646u + 35.3580\\-0.996109u^9 + 7.36965u^8 + \cdots - 46.7860u + 8.94163\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes =unknown

(iv) Complex Volumes and Cusp Shapes

Solution to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.17778 - 1.52326I$ $a = 0.404353 + 0.202692I$ $b = 0.236867 - 0.651968I$	$1.20593 + 5.98785I$	$-5.27541 - 6.66552I$
$u = -0.17778 + 1.52326I$ $a = 0.404353 - 0.202692I$ $b = 0.236867 + 0.651968I$	$1.20593 - 5.98785I$	$-5.27541 + 6.66552I$
$u = 0.047135 - 1.023861I$ $a = -0.531179 + 0.239445I$ $b = 0.220121 + 0.555140I$	$4.48505 + 2.09086I$	$1.20974 - 1.26388I$
$u = 0.047135 + 1.023861I$ $a = -0.531179 - 0.239445I$ $b = 0.220121 - 0.555140I$	$4.48505 - 2.09086I$	$1.20974 + 1.26388I$
$u = 0.289030 - 0.055336I$ $a = -2.06397 + 2.24075I$ $b = -0.472555 + 0.761854I$	$-0.92481 + 3.39622I$	$-5.36753 - 9.56684I$
$u = 0.289030 + 0.055336I$ $a = -2.06397 - 2.24075I$ $b = -0.472555 - 0.761854I$	$-0.92481 - 3.39622I$	$-5.36753 + 9.56684I$
$u = 1.69253 - 0.26531I$ $a = -0.901284 - 0.290512I$ $b = -1.60252 - 0.25258I$	$-5.66496 - 0.94946I$	$-9.80995 - 0.64578I$
$u = 1.69253 + 0.26531I$ $a = -0.901284 + 0.290512I$ $b = -1.60252 + 0.25258I$	$-5.66496 + 0.94946I$	$-9.80995 + 0.64578I$
$u = 2.14909 - 0.39815I$ $a = 0.758748 - 0.031463I$ $b = 1.61809 - 0.36972I$	$-7.32588 + 2.86616I$	$-9.25686 - 0.74854I$
$u = 2.14909 + 0.39815I$ $a = 0.758748 + 0.031463I$ $b = 1.61809 + 0.36972I$	$-7.32588 - 2.86616I$	$-9.25686 + 0.74854I$

II. $\boldsymbol{I_2^u =}$
$\boldsymbol{\langle u^{18}+13u^{17}+\cdots+62u-52,\ -7.04\times10^{11}u^{17}-7.92\times10^{12}u^{16}+\cdots+3.19\times10^{11}b+2.07\times10^{13},\ -5.17\times10^{12}u^{17}-5.81\times10^{13}u^{16}+\cdots+4.15\times10^{12}a+1.44\times10^{14}\rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix}1\\0\end{pmatrix}$$

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

$$a_3 = \begin{pmatrix}u\\u\end{pmatrix}$$

$$a_8 = \begin{pmatrix}1.24645u^{17}+13.9984u^{16}+\cdots+61.8545u-34.6924\\2.20551u^{17}+24.8043u^{16}+\cdots+111.972u-64.8155\end{pmatrix}$$

$$a_2 = \begin{pmatrix}0.0297489u^{17}+0.467709u^{16}+\cdots+8.80712u-2.31931\\-0.0809725u^{17}-0.649651u^{16}+\cdots+5.16374u-1.54694\end{pmatrix}$$

$$a_7 = \begin{pmatrix}1.24645u^{17}+13.9984u^{16}+\cdots+61.8545u-34.6924\\-1.66180u^{17}-18.7690u^{16}+\cdots-89.5844u+49.8708\end{pmatrix}$$

$$a_6 = \begin{pmatrix}-0.415343u^{17}-4.77063u^{16}+\cdots-27.7299u+15.1784\\-1.66180u^{17}-18.7690u^{16}+\cdots-89.5844u+49.8708\end{pmatrix}$$

$$a_{11} = \begin{pmatrix}-0.129659u^{17}-1.52616u^{16}+\cdots-4.65473u+5.42297\\-0.159408u^{17}-1.99387u^{16}+\cdots-12.4618u+6.74228\end{pmatrix}$$

$$a_{10} = \begin{pmatrix}-0.129659u^{17}-1.52616u^{16}+\cdots-4.65473u+5.42297\\-0.0809725u^{17}-0.649651u^{16}+\cdots+4.16374u-1.54694\end{pmatrix}$$

$$a_5 = \begin{pmatrix}-1.64549u^{17}-18.7999u^{16}+\cdots-111.519u+57.5250\\1.74407u^{17}+19.9668u^{16}+\cdots+104.322u-57.4841\end{pmatrix}$$

$$a_9 = \begin{pmatrix}1.08652u^{17}+12.2181u^{16}+\cdots+61.4773u-31.1322\\0.593234u^{17}+6.55853u^{16}+\cdots+23.2642u-14.7592\end{pmatrix}$$

$$a_9 = \begin{pmatrix}1.08652u^{17}+12.2181u^{16}+\cdots+61.4773u-31.1322\\0.593234u^{17}+6.55853u^{16}+\cdots+23.2642u-14.7592\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes =unknown

(iv) Complex Volumes and Cusp Shapes

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -2.11223 - 0.43123I$ $a = -0.849542 - 0.069781I$ $b = -1.76433 - 0.51374I$	$-8.1698 - 13.9821I$	$-9.44231 + 6.99967I$
$u = -2.11223 + 0.43123I$ $a = -0.849542 + 0.069781I$ $b = -1.76433 + 0.51374I$	$-8.1698 + 13.9821I$	$-9.44231 - 6.99967I$
$u = -1.87715 - 0.46207I$ $a = \ \ 0.918082 - 0.188663I$ $b = \ \ 1.81055 + 0.07007I$	$-11.82299 - 6.66028I$	$-12.41949 + 4.41908I$
$u = -1.87715 + 0.46207I$ $a = \ \ 0.918082 + 0.188663I$ $b = \ \ 1.81055 - 0.07007I$	$-11.82299 + 6.66028I$	$-12.41949 - 4.41908I$
$u = -1.73987 - 0.25373I$ $a = \ \ 0.982769 + 0.136472I$ $b = \ \ 1.67527 + 0.48680I$	$-2.96562 - 8.53890I$	$-6.56006 + 6.26417I$
$u = -1.73987 + 0.25373I$ $a = \ \ 0.982769 - 0.136472I$ $b = \ \ 1.67527 - 0.48680I$	$-2.96562 + 8.53890I$	$-6.56006 - 6.26417I$
$u = -1.56499$ $a = -1.18155$ $b = -1.84911$	-6.56717	-21.0976
$u = -1.47663 - 0.26432I$ $a = -1.030342 + 0.483494I$ $b = -1.64923 + 0.44161I$	$-5.89009 + 1.65718I$	$-15.9057 - 11.0160I$
$u = -1.47663 + 0.26432I$ $a = -1.030342 - 0.483494I$ $b = -1.64923 - 0.44161I$	$-5.89009 - 1.65718I$	$-15.9057 + 11.0160I$
$u = \ \ 0.004712 - 1.390190I$ $a = \ \ 0.026826 - 0.321841I$ $b = \ \ 0.447293 + 0.038810I$	$3.74044 + 2.38337I$	$-9.76739 - 4.47048I$

Solution to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.004712 + 1.390190I$ $a = 0.026826 + 0.321841I$ $b = 0.447293 - 0.038810I$	$3.74044 - 2.38337I$	$-9.76739 + 4.47048I$
$u = 0.109140 - 0.368970I$ $a = 1.64363 + 0.96967I$ $b = -0.537164 + 0.500622I$	$-1.23970 + 1.97493I$	$-7.15329 - 4.18348I$
$u = 0.109140 + 0.368970I$ $a = 1.64363 - 0.96967I$ $b = -0.537164 - 0.500622I$	$-1.23970 - 1.97493I$	$-7.15329 + 4.18348I$
$u = 0.375820$ $a = 0.803488$ $b = -0.301967$	-0.728249	-13.7764
$u = 0.45365 - 1.68449I$ $a = -0.244490 + 0.268457I$ $b = -0.341299 - 0.533626I$	$0.82240 + 4.90619I$	$-8.42983 - 0.71625I$
$u = 0.45365 + 1.68449I$ $a = -0.244490 - 0.268457I$ $b = -0.341299 + 0.533626I$	$0.82240 - 4.90619I$	$-8.42983 + 0.71625I$
$u = 0.732970 - 0.550489I$ $a = -0.065601 - 0.701871I$ $b = 0.434456 + 0.478337I$	$-3.72560 + 1.35027I$	$-12.38494 - 1.13112I$
$u = 0.732970 + 0.550489I$ $a = -0.065601 + 0.701871I$ $b = 0.434456 - 0.478337I$	$-3.72560 - 1.35027I$	$-12.38494 + 1.13112I$

III.

$\boldsymbol{I_3^u = \langle b^{24}+b^{23}+\cdots+198b+93,\ 1.89\times10^{32}u+1.72\times10^{30}b^{23}+\cdots+3.66\times10^{32}b+3.10\times10^{32},\ 1.15\times10^{31}b^{23}-1.35\times10^{30}b^{22}+\cdots+1.89\times10^{32}a+1.30\times10^{33}\rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_4 = \begin{pmatrix}0\\-0.00905949b^{23}-0.00655859b^{22}+\cdots-1.93502b-1.63454\end{pmatrix}$$
$$a_3 = \begin{pmatrix}-0.00905949b^{23}-0.00655859b^{22}+\cdots-1.93502b-1.63454\\-0.00905949b^{23}-0.00655859b^{22}+\cdots-1.93502b-1.63454\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-0.0608257b^{23}+0.00713954b^{22}+\cdots-6.08510b-6.87527\\b\end{pmatrix}$$
$$a_2 = \begin{pmatrix}-0.0620949b^{23}-0.00159540b^{22}+\cdots-6.16650b-4.19580\\-0.0598403b^{23}-0.00808861b^{22}+\cdots-5.95310b-5.82530\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-0.0608257b^{23}+0.00713954b^{22}+\cdots-6.08510b-6.87527\\0.0364755b^{23}-0.00744581b^{22}+\cdots+5.02882b+3.53362\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-0.0243501b^{23}-0.000306261b^{22}+\cdots-1.05628b-3.34165\\0.0364755b^{23}-0.00744581b^{22}+\cdots+5.02882b+3.53362\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-0.0679652b^{23}-0.0162855b^{22}+\cdots-5.16821b-4.65679\\-b^2\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}-0.0679652b^{23}-0.0162855b^{22}+\cdots-5.16821b-4.65679\\0.00231317b^{23}+0.00120698b^{22}+\cdots-1.25423b+0.0342955\end{pmatrix}$$
$$a_5 = \begin{pmatrix}0.00756777b^{23}-0.00737411b^{22}+\cdots+4.74254b+1.99259\\0.0420847b^{23}+0.00106267b^{22}+\cdots+2.69066b+3.61259\end{pmatrix}$$
$$a_9 = \begin{pmatrix}0.151396b^{23}+0.0112653b^{22}+\cdots+12.2662b+16.5205\\0.0806205b^{23}+0.0135631b^{22}+\cdots+7.03985b+8.36866\end{pmatrix}$$
$$a_9 = \begin{pmatrix}0.151396b^{23}+0.0112653b^{22}+\cdots+12.2662b+16.5205\\0.0806205b^{23}+0.0135631b^{22}+\cdots+7.03985b+8.36866\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes =unknown

(iv) Complex Volumes and Cusp Shapes

Solution to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 2.08773 + 0.56744I$ $a = -0.688594 + 0.135947I$ $b = -1.76636 - 0.82167I$	$-7.89505 - 4.00229I$	$-13.4243 + 7.1489I$
$u = 2.08773 - 0.56744I$ $a = -0.688594 - 0.135947I$ $b = -1.76636 + 0.82167I$	$-7.89505 + 4.00229I$	$-13.4243 - 7.1489I$
$u = 1.76606$ $a = -0.791908 - 0.270514I$ $b = -1.64039 - 0.05887I$	$-4.19595 - 2.02988I$	$-4.58322 + 3.46410I$
$u = 1.76606$ $a = -0.791908 + 0.270514I$ $b = -1.64039 + 0.05887I$	$-4.19595 + 2.02988I$	$-4.58322 - 3.46410I$
$u = 2.08773 - 0.56744I$ $a = -0.902095 - 0.247557I$ $b = -1.278999 - 0.144410I$	$-7.89505 - 0.05747I$	$-13.42428 - 0.22068I$
$u = 2.08773 + 0.56744I$ $a = -0.902095 + 0.247557I$ $b = -1.278999 + 0.144410I$	$-7.89505 + 0.05747I$	$-13.42428 + 0.22068I$
$u = -0.286433 + 0.496092I$ $a = -1.92135 + 1.73332I$ $b = -0.928733 - 0.050990I$	$-1.23922 - 6.62201I$	$-9.41886 + 6.66892I$
$u = -0.286433 - 0.496092I$ $a = -1.92135 - 1.73332I$ $b = -0.928733 + 0.050990I$	$-1.23922 + 6.62201I$	$-9.41886 - 6.66892I$
$u = -0.286433 + 0.496092I$ $a = 0.412404 - 0.469961I$ $b = -0.786660 - 0.896359I$	$-1.23922 - 2.56224I$	$-9.41886 - 0.25928I$
$u = -0.286433 - 0.496092I$ $a = 0.412404 + 0.469961I$ $b = -0.786660 + 0.896359I$	$-1.23922 + 2.56224I$	$-9.41886 + 0.25928I$

Solution to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.286433 + 0.496092I$ $a = 0.66845 - 1.97166I$ $b = -0.115018 - 0.339202I$	$-1.23922 - 2.56224I$	$-9.41886 - 0.25928I$
$u = -0.286433 - 0.496092I$ $a = 0.66845 + 1.97166I$ $b = -0.115018 + 0.339202I$	$-1.23922 + 2.56224I$	$-9.41886 + 0.25928I$
$u = -0.368654$ $a = 1.95349 - 0.37948I$ $b = 0.049359 - 1.192952I$	$2.72528 - 2.02988I$	$-5.73050 + 3.46410I$
$u = -0.368654$ $a = 1.95349 + 0.37948I$ $b = 0.049359 + 1.192952I$	$2.72528 + 2.02988I$	$-5.73050 - 3.46410I$
$u = -0.286433 - 0.496092I$ $a = -0.73358 + 1.44855I$ $b = 0.30954 - 1.44965I$	$-1.23922 + 6.62201I$	$-9.41886 - 6.66892I$
$u = -0.286433 + 0.496092I$ $a = -0.73358 - 1.44855I$ $b = 0.30954 + 1.44965I$	$-1.23922 - 6.62201I$	$-9.41886 + 6.66892I$
$u = -0.368654$ $a = 0.13389 - 3.23597I$ $b = 0.720163 - 0.139898I$	$2.72528 - 2.02988I$	$-5.73050 + 3.46410I$
$u = -0.368654$ $a = 0.13389 + 3.23597I$ $b = 0.720163 + 0.139898I$	$2.72528 + 2.02988I$	$-5.73050 - 3.46410I$
$u = 1.76606$ $a = 0.928843 - 0.033335I$ $b = 1.39856 - 0.47774I$	$-4.19595 + 2.02988I$	$-4.58322 - 3.46410I$
$u = 1.76606$ $a = 0.928843 + 0.033335I$ $b = 1.39856 + 0.47774I$	$-4.19595 - 2.02988I$	$-4.58322 + 3.46410I$

Solution to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 2.08773 - 0.56744I$ $a = 0.887479 - 0.152355I$ $b = 1.51474 - 0.10692I$	$-7.89505 + 4.00229I$	$-13.4243 - 7.1489I$
$u = 2.08773 + 0.56744I$ $a = 0.887479 + 0.152355I$ $b = 1.51474 + 0.10692I$	$-7.89505 - 4.00229I$	$-13.4243 + 7.1489I$
$u = 2.08773 + 0.56744I$ $a = 0.552976 - 0.219469I$ $b = 2.02380 - 0.00495I$	$-7.89505 + 0.05747I$	$-13.42428 + 0.22068I$
$u = 2.08773 - 0.56744I$ $a = 0.552976 + 0.219469I$ $b = 2.02380 + 0.00495I$	$-7.89505 - 0.05747I$	$-13.42428 - 0.22068I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossings
c_1, c_9	$(u^{10}+u^8-u^7+6u^6-2u^5+4u^4-4u^3+5u^2-2u+1)$ $(u^{18}-2u^{16}+\cdots+7u^2-1)(u^{24}+5u^{23}+\cdots-12u+3)$
c_2, c_6	$(u^{10}-4u^8+3u^7+12u^6+u^5+11u^3+2u^2-2u+3)$ $(u^{18}-7u^{16}+\cdots+2u-13)(u^{24}+u^{23}+\cdots+1976u+793)$
c_3	$(-1+3u-2u^2+7u^4+5u^5+u^6)^4(u^{10}+8u^9+\cdots+26u+3)$ $(u^{18}-13u^{17}+\cdots-62u-52)$
c_4	$(u^2-u+1)^{12}(u^{10}+4u^8+8u^6+2u^5+10u^4+3u^3+7u^2+u+3)$ $(u^{18}+13u^{17}+\cdots+608u+64)$
c_5	$(u^6-u^5+3u^4-2u^3+2u^2-u-1)^4$ $(u^{10}+2u^9+6u^8+8u^7+13u^6+14u^5+15u^4+14u^3+10u^2+7u+3)$ $(u^{18}+9u^{17}+\cdots+50u+4)$
c_7, c_{11}	$(u^{10}-4u^8+\cdots-u+1)(u^{18}+2u^{17}+\cdots+u+1)$ $(u^{24}+u^{23}+\cdots+198u+93)$
c_8	$(u^6-u^5+3u^4-2u^3+2u^2-u-1)^4$ $(u^{10}-2u^9+6u^8-8u^7+13u^6-14u^5+15u^4-14u^3+10u^2-7u+3)$ $(u^{18}+9u^{17}+\cdots+50u+4)$
c_{10}	$(u^2-u+1)^{12}(u^{10}+4u^8+8u^6-2u^5+10u^4-3u^3+7u^2-u+3)$ $(u^{18}+13u^{17}+\cdots+608u+64)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossings
c_1, c_9	$(y^{10}+2y^9+\cdots+6y+1)(y^{18}-4y^{17}+\cdots-14y+1)$ $(y^{24}+3y^{23}+\cdots-156y+9)$
c_2, c_6	$(y^{10}-8y^9+\cdots+8y+9)(y^{18}-14y^{17}+\cdots-1564y+169)$ $(y^{24}-17y^{23}+\cdots-2553304y+628849)$
c_3	$(y^6-11y^5+45y^4-60y^3-10y^2-5y+1)^4$ $(y^{10}-8y^9+\cdots-178y+9)(y^{18}-19y^{17}+\cdots+6660y+2704)$
c_4, c_{10}	$(y^2+y+1)^{12}(y^{10}+8y^9+\cdots+41y+9)$ $(y^{18}+9y^{17}+\cdots-17408y+4096)$
c_5, c_8	$(1-5y-6y^2+4y^3+9y^4+5y^5+y^6)^4(y^{10}+8y^9+\cdots+11y+9)$ $(y^{18}+13y^{17}+\cdots-364y+16)$
c_7, c_{11}	$(y^{10}-8y^9+22y^8-16y^7-15y^6-7y^5+32y^4+40y^3+24y^2+7y+1)$ $(y^{18}-26y^{17}+\cdots-21y+1)(y^{24}-25y^{23}+\cdots+40776y+8649)$