1 BLT set 1 over GF(37)

Points on the quadric $x_0^2 + x_1x_2 + x_3x_4$:

$P_1 = (0, 1, 0, 0, 0)$

$P_2 = (0, 0, 1, 0, 0)$

$P_3 = (0, 1, 18, 36, 18)$

$P_4 = (0, 1, 23, 18, 9)$

$P_5 = (0, 1, 2, 12, 6)$

$P_6 = (0, 1, 15, 9, 23)$

$P_7 = (0, 1, 32, 11, 24)$

$P_8 = (0, 1, 19, 31, 34)$

$P_9 = (0, 1, 20, 16, 8)$

$P_{10} = (0, 1, 24, 10, 5)$

$P_{11} = (0, 1, 22, 17, 27)$

$P_{12} = (0, 1, 29, 33, 35)$

$P_{13} = (0, 1, 35, 35, 36)$

$P_{14} = (0, 1, 6, 5, 21)$

$P_{15} = (0, 1, 19, 6, 3)$

$P_{16} = (0, 1, 23, 19, 28)$

$P_{17} = (0, 1, 31, 7, 22)$

$P_{18} = (0, 1, 8, 24, 12)$

$P_{19} = (0, 1, 14, 3, 20)$

$P_{20} = (0, 1, 13, 14, 7)$

$P_{21} = (0, 1, 8, 13, 25)$

$P_{22} = (0, 1, 22, 20, 10)$

$P_{23} = (0, 1, 20, 21, 29)$

$P_{24} = (0, 1, 2, 25, 31)$

$P_{25} = (0, 1, 17, 15, 26)$

$P_{26} = (0, 1, 29, 4, 2)$

$P_{27} = (0, 1, 17, 22, 11)$

$P_{28} = (0, 1, 18, 1, 19)$

$P_{29} = (0, 1, 6, 32, 16)$

$P_{30} = (0, 1, 24, 27, 32)$

$P_{31} = (0, 1, 13, 23, 30)$

$P_{32} = (0, 1, 15, 28, 14)$

$P_{33} = (0, 1, 32, 26, 13)$

$P_{34} = (0, 1, 5, 29, 33)$

$P_{35} = (0, 1, 31, 30, 15)$

$P_{36} = (0, 1, 14, 34, 17)$

$P_{37} = (0, 1, 35, 2, 1)$

$P_{38} = (0, 1, 5, 8, 4)$

Stabilizer of order 3846816 is generated by:

$$g_1 = \begin{pmatrix} 4 & 0 & 0 & 20 & 27 \\ 0 & 2 & 9 & 36 & 18 \\ 0 & 1 & 2 & 12 & 6 \\ 5 & 6 & 18 & 18 & 7 \\ 27 & 12 & 36 & 28 & 18 \end{pmatrix}$$

$$g_2 = \begin{pmatrix} 36 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \end{pmatrix}$$

$$g_3 = \begin{pmatrix} 25 & 0 & 0 & 29 & 4 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 5 & 1 & 8 & 4 \\ 2 & 4 & 0 & 24 & 6 \\ 33 & 8 & 0 & 24 & 24 \end{pmatrix}$$

$$g_4 = \begin{pmatrix} 31 & 0 & 0 & 12 & 31 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 3 & 0 & 0 & 16 & 11 \\ 31 & 0 & 0 & 7 & 16 \end{pmatrix}$$

$$g_5 = \begin{pmatrix} 32 & 0 & 0 & 14 & 30 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 22 & 0 & 0 & 35 & 20 \\ 30 & 0 & 0 & 6 & 35 \end{pmatrix}$$

$$g_6 = \begin{pmatrix} 33 & 0 & 0 & 17 & 10 \\ 0 & 36 & 0 & 0 & 0 \\ 0 & 18 & 36 & 31 & 34 \\ 32 & 34 & 0 & 17 & 29 \\ 10 & 31 & 0 & 5 & 17 \end{pmatrix}$$

$$g_7 = \begin{pmatrix} 1 & 0 & 0 & 0 & 0 \\ 0 & 2 & 0 & 0 & 0 \\ 0 & 0 & 19 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \end{pmatrix}$$

Induced action on the BLT-set:

The induced group has order 50616 and is generated by:

g_1 =(1, 4)(2, 5)(3, 6)(7, 10)(8, 9)(11, 14)(12, 13)(15, 18)(16, 17)(19, 22)(20, 21)(23, 26)(24, 25)(27, 30)(28, 29)(31, 34)(32, 33)(35, 38)(36, 37)

g_2 =id

g_3 =(2, 6)(3, 5)(7, 8)(9, 10)(11, 12)(13, 14)(15, 16)(17, 18)(19, 20)(21, 22)(23, 24)(25, 26)(27, 28)(29, 30)(31, 32)(33, 34)(35, 36)(37, 38)

g_4 =id

g_5 =id

g_6 =(2, 5)(3, 4)(6, 28)(7, 9)(8, 26)(10, 20)(11, 33)(12, 19)(13, 17)(14, 37)(15, 24)(16, 27)(21, 38)(22, 35)(23, 32)(25, 31)(29, 36)(30, 34)

g_7 =(3, 4, 6, 31, 35, 25, 33, 21, 24, 8, 36, 11, 30, 29, 9, 38, 26, 37, 28, 16, 32, 20, 17, 27, 7, 18, 5, 15, 19, 22, 10, 14, 23, 34, 12, 13)

Kernel has order 76 and is generated by:

$$b_1 = \begin{pmatrix} 13 & 0 & 0 & 22 & 26 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 13 & 0 & 0 & 31 & 22 \\ 11 & 0 & 0 & 14 & 31 \end{pmatrix}$$

$$b_2 = \begin{pmatrix} 15 & 0 & 0 & 35 & 1 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 18 & 0 & 0 & 8 & 15 \\ 1 & 0 & 0 & 23 & 8 \end{pmatrix}$$

$$b_3 = \begin{pmatrix} 1 & 0 & 0 & 0 & 0 \\ 0 & 36 & 0 & 0 & 0 \\ 0 & 0 & 36 & 0 & 0 \\ 0 & 0 & 0 & 36 & 0 \\ 0 & 0 & 0 & 0 & 36 \end{pmatrix}$$

The kernel has 1407 orbits on the quadric.

The orbit length are $[38^{1369}, 1^{38}]$

Induced action on orbit $O_2 = \{3, 76, 4073, 4146, 4219, 4292, 4365, 4438, 4511, 4584, 4657, 4730, 4803, 4876, 4949, 5$

(length 38)

The induced group has order 76 and is generated by:

g_1 =(1, 11)(2, 31)(3, 15)(4, 5)(6, 10)(7, 19)(8, 34)(9, 27)(12, 16)(13, 32)(14, 25)(17, 18)(20, 28)(21, 30)(22, 35)(23, 33)(24, 37)(26, 36)(29, 38)

g_2 =(1, 18, 17, 11, 33, 37, 21, 34, 5, 28, 19, 26, 32, 35, 3, 27, 10, 29, 25, 2, 16, 12, 31, 14, 38, 6, 9, 15, 22, 13, 36, 7, 20, 4, 8, 30, 24, 23)

g_3 =(3, 38)(4, 37)(5, 36)(6, 35)(7, 34)(8, 33)(9, 32)(10, 31)(11, 30)(12, 29)(13, 28)(14, 27)(15, 26)(16, 25)(17, 24)(18, 23)(19, 22)(20, 21)

group order is small, so we list all elements a_1 =id

a_2 =(3, 38)(4, 37)(5, 36)(6, 35)(7, 34)(8, 33)(9, 32)(10, 31)(11, 30)(12, 29)(13, 28)(14, 27)(15, 26)(16, 25)(17, 24)(18, 23)(19, 22)(20, 21)

a_3 =(1, 11)(2, 31)(3, 15)(4, 5)(6, 10)(7, 19)(8, 34)(9, 27)(12, 16)(13, 32)(14, 25)(17, 18)(20, 28)(21, 30)(22, 35)(23, 33)(24, 37)(26, 36)(29, 38)

a_4 =(1, 11, 21, 28, 32, 27, 25, 12, 38, 15, 36, 4, 24, 18, 33, 34, 19, 35, 10, 2, 31, 6, 22, 7, 8, 23, 17, 37, 5, 26, 3, 29, 16, 14, 9, 13, 20, 30)

a_5 =(1, 18, 17, 11, 33, 37, 21, 34, 5, 28, 19, 26, 32, 35, 3, 27, 10, 29, 25, 2, 16, 12, 31, 14, 38, 6, 9, 15, 22, 13, 36, 7, 20, 4, 8, 30, 24, 23)

a_6 =(1, 18)(2, 16)(3, 6)(4, 21)(5, 7)(8, 37)(9, 35)(10, 14)(11, 24)(12, 25)(13, 19)(15, 32)(17, 23)(20, 34)(22, 26)(27, 38)(28, 36)(29, 31)(30, 33)

a_7 =(1, 33)(2, 14)(3, 22)(4, 28)(5, 8)(6, 29)(7, 26)(9, 10)(11, 18)(13, 35)(15, 27)(16, 31)(19, 20)(21, 24)(23, 37)(25, 38)(30, 34)(32, 36)

a_8 =(1, 33, 5, 32, 10, 16, 38, 22, 20, 24, 17, 21, 19, 3, 25, 31, 9, 36, 8)(2, 14, 15, 7, 30, 18, 37, 28, 35, 29, 12, 6, 13, 4, 23, 11, 34, 26, 27)

a_9 =(1, 17)(2, 12)(3, 9)(4, 34)(5, 20)(6, 27)(7, 28)(8, 21)(10, 38)(11, 23)(13, 26)(14, 29)(15, 35)(19, 36)(22, 32)(24, 33)(25, 31)(30, 37)

a_{10} =(1, 17, 33, 21, 5, 19, 32, 3, 10, 25, 16, 31, 38, 9, 22, 36, 20, 8, 24)(2, 12, 14, 6, 15, 13, 7, 4, 30, 23, 18, 11, 37, 34, 28, 26, 35, 27, 29)

a_{11} =(1, 23, 24, 30, 8, 4, 20, 7, 36, 13, 22, 15, 9, 6, 38, 14, 31, 12, 16, 2, 25, 29, 10, 27, 3, 35, 32, 26, 19, 28, 5, 34, 21, 37, 33, 11, 17, 18)

a_{12} =(1, 23)(2, 25)(3, 14)(4, 33)(5, 13)(6, 32)(7, 21)(8, 11)(9, 26)(10, 12)(15, 19)(16, 29)(17,

30)(18, 24)(20, 37)(22, 28)(27, 31)(34, 36)(35, 38)

a_{13} =(1, 37)(2, 38)(3, 13)(4, 19)(5, 30)(6, 25)(7, 32)(8, 28)(9, 29)(10, 15)(11, 17)(12, 31)(14, 16)(18, 33)(20, 26)(21, 23)(22, 27)(24, 34)(35, 36)

a_{14} =(1, 37, 19, 27, 16, 6, 36, 30, 17, 34, 32, 29, 31, 15, 20, 23, 33, 28, 3, 2, 38, 13, 8, 18, 21, 26, 10, 12, 9, 7, 24, 11, 5, 35, 25, 14, 22, 4)

a_{15} =(1, 24, 8, 20, 36, 22, 9, 38, 31, 16, 25, 10, 3, 32, 19, 5, 21, 33, 17)(2, 29, 27, 35, 26, 28, 34, 37, 11, 18, 23, 30, 4, 7, 13, 15, 6, 14, 12)

a_{16} =(1, 24)(2, 29)(3, 31)(4, 11)(5, 22)(6, 26)(7, 37)(8, 17)(9, 19)(10, 16)(12, 27)(13, 34)(14, 35)(15, 28)(18, 30)(20, 33)(21, 36)(32, 38)

a_{17} =(1, 21)(2, 6)(3, 36)(4, 26)(5, 24)(7, 35)(8, 19)(9, 25)(10, 22)(12, 14)(13, 27)(15, 29)(16, 38)(17, 33)(18, 37)(20, 32)(23, 34)(28, 30)

a_{18} =(1, 21, 32, 25, 38, 36, 24, 33, 19, 10, 31, 22, 8, 17, 5, 3, 16, 9, 20)(2, 6, 7, 23, 37, 26, 29, 14, 13, 30, 11, 28, 27, 12, 15, 4, 18, 34, 35)

a_{19} =(1, 30, 20, 13, 9, 14, 16, 29, 3, 26, 5, 37, 17, 23, 8, 7, 22, 6, 31, 2, 10, 35, 19, 34, 33, 18, 24, 4, 36, 15, 38, 12, 25, 27, 32, 28, 21, 11)

a_{20} =(1, 30)(2, 10)(3, 12)(4, 17)(5, 15)(6, 19)(7, 33)(8, 18)(9, 28)(11, 20)(13, 21)(14, 32)(16, 27)(22, 34)(23, 24)(25, 29)(26, 38)(31, 35)(36, 37)

a_{21} =(1, 34)(2, 9)(3, 7)(4, 32)(5, 23)(6, 16)(8, 26)(10, 13)(11, 33)(12, 38)(14, 31)(15, 25)(17, 37)(18, 21)(19, 30)(20, 35)(22, 29)(24, 28)(27, 36)

a_{22} =(1, 34, 3, 12, 22, 30, 33, 26, 25, 6, 20, 18, 5, 27, 31, 13, 24, 37, 32, 2, 9, 4, 17, 28, 10, 14, 36, 23, 21, 35, 16, 15, 8, 11, 19, 29, 38, 7)

a_{23} =(1, 8, 36, 9, 31, 25, 3, 19, 21, 17, 24, 20, 22, 38, 16, 10, 32, 5, 33)(2, 27, 26, 34, 11, 23, 4, 13, 6, 12, 29, 35, 28, 37, 18, 30, 7, 15, 14)

a_{24} =(1, 8)(2, 27)(3, 16)(4, 18)(5, 9)(6, 28)(7, 11)(10, 25)(12, 35)(13, 37)(14, 26)(15, 34)(17, 20)(19, 38)(21, 22)(23, 30)(31, 32)(33, 36)

a_{25} =(1, 5)(2, 15)(3, 20)(4, 35)(6, 12)(7, 27)(8, 32)(9, 16)(10, 36)(11, 37)(13, 29)(17, 21)(18, 34)(19, 24)(22, 25)(23, 28)(26, 30)(31, 38)

a_{26} =(1, 5, 10, 38, 20, 17, 19, 25, 9, 8, 33, 32, 16, 22, 24, 21, 3, 31, 36)(2, 15, 30, 37, 35, 12, 13, 23, 34, 27, 14, 7, 18, 28, 29, 6, 4, 11, 26)

a_{27} =(1, 4, 22, 14, 25, 35, 5, 11, 24, 7, 9, 12, 10, 26, 21, 18, 8, 13, 38, 2, 3, 28, 33, 23, 20, 15, 31, 29, 32, 34, 17, 30, 36, 6, 16, 27, 19, 37)

a_{28} =(1, 4)(2, 3)(5, 6)(7, 17)(8, 23)(9, 34)(10, 29)(11, 36)(12, 32)(13, 33)(14, 19)(15, 21)(16, 35)(18, 20)(22, 37)(24, 30)(25, 27)(26, 31)(28, 38)

a_{29} =(1, 28)(2, 22)(3, 4)(5, 18)(6, 31)(7, 10)(8, 35)(9, 12)(11, 21)(13, 25)(14, 38)(15, 16)(17, 34)(19, 23)(20, 27)(24, 26)(29, 36)(30, 32)(33, 37)

a_{30} =(1, 28, 25, 15, 24, 34, 10, 6, 8, 37, 3, 14, 20, 11, 32, 12, 36, 18, 19, 2, 22, 23, 5, 29, 9, 30, 21, 27, 38, 4, 33, 35, 31, 7, 17, 26, 16, 13)

a_{31} =(1, 20, 9, 16, 3, 5, 17, 8, 22, 31, 10, 19, 33, 24, 36, 38, 25, 32, 21)(2, 35, 34, 18, 4, 15, 12, 27, 28, 11, 30, 13, 14, 29, 26, 37, 23, 7, 6)

a_{32} =(1, 20)(2, 35)(3, 25)(4, 23)(5, 38)(6, 34)(7, 18)(8, 24)(9, 21)(11, 13)(12, 26)(14, 28)(15, 37)(16, 32)(17, 36)(19, 31)(22, 33)(27, 29)

a_{33} =(1, 19)(2, 13)(3, 8)(4, 27)(5, 17)(6, 14)(7, 29)(9, 31)(10, 20)(11, 34)(12, 15)(16, 22)(18, 28)(21, 33)(23, 26)(24, 32)(25, 36)(30, 35)

a_{34} =(1, 19, 16, 36, 17, 32, 31, 20, 33, 3, 38, 8, 21, 10, 9, 24, 5, 25, 22)(2, 13, 18, 26, 12, 7, 11, 35, 14, 4, 37, 27, 6, 30, 34, 29, 15, 23, 28)

a_{35} =(1, 7, 38, 29, 19, 11, 8, 15, 16, 35, 21, 23, 36, 14, 10, 28, 17, 4, 9, 2, 32, 37, 24, 13, 31, 27, 5, 18, 20, 6, 25, 26, 33, 30, 22, 12, 3, 34)

a_{36} =(1, 7)(2, 32)(3, 29)(4, 24)(5, 14)(6, 21)(8, 30)(9, 37)(10, 27)(11, 22)(12, 19)(13, 17)(15, 33)(16, 26)(18, 36)(20, 23)(25, 35)(28, 31)(34, 38)

a_{37} =(1, 26)(2, 36)(3, 30)(4, 10)(5, 11)(6, 38)(7, 25)(8, 27)(9, 14)(12, 22)(13, 16)(15, 31)(17, 28)(18, 19)(20, 29)(21, 37)(23, 32)(24, 35)(33, 34)

a_{38} =(1, 26, 31, 4, 21, 29, 22, 18, 32, 14, 8, 34, 25, 13, 17, 35, 38, 30, 5, 2, 36, 11, 3, 6, 24, 28, 16, 7, 33, 27, 9, 23, 19, 12, 20, 37, 10, 15)

a_{39} =(1, 36, 31, 3, 21, 24, 22, 16, 32, 33, 8, 9, 25, 19, 17, 20, 38, 10, 5)(2, 26, 11, 4, 6, 29, 28, 18, 7, 14, 27, 34, 23, 13, 12, 35, 37, 30, 15)

a_{40} =(1, 36)(2, 26)(3, 10)(4, 30)(5, 31)(6, 37)(7, 23)(9, 33)(11, 15)(12, 28)(13, 18)(14, 34)(16, 19)(17, 22)(20, 24)(21, 38)(25, 32)(29, 35)

a_{41} =(1, 32)(2, 7)(3, 24)(4, 29)(5, 33)(8, 10)(9, 38)(11, 28)(12, 13)(14, 15)(16, 36)(17, 19)(18,

26)(20, 25)(22, 31)(23, 35)(27, 30)(34, 37)

a_{42} =(1, 32, 38, 24, 19, 31, 8, 5, 16, 20, 21, 25, 36, 33, 10, 22, 17, 3, 9)(2, 7, 37, 29, 13, 11, 27, 15, 18, 35, 6, 23, 26, 14, 30, 28, 12, 4, 34)

a_{43} =(1, 13, 16, 26, 17, 7, 31, 35, 33, 4, 38, 27, 21, 30, 9, 29, 5, 23, 22, 2, 19, 18, 36, 12, 32, 11, 20, 14, 3, 37, 8, 6, 10, 34, 24, 15, 25, 28)

a_{44} =(1, 13)(2, 19)(3, 27)(4, 8)(5, 12)(6, 33)(7, 24)(9, 11)(10, 35)(14, 21)(15, 17)(16, 28)(18, 22)(20, 30)(23, 36)(25, 26)(29, 32)(31, 34)(37, 38)

a_{45} =(1, 35)(2, 20)(3, 23)(4, 25)(5, 37)(6, 9)(7, 16)(8, 29)(10, 30)(11, 19)(12, 36)(13, 31)(14, 22)(15, 38)(17, 26)(18, 32)(21, 34)(24, 27)(28, 33)

a_{46} =(1, 35, 9, 18, 3, 15, 17, 27, 22, 11, 10, 13, 33, 29, 36, 37, 25, 7, 21, 2, 20, 34, 16, 4, 5, 12, 8, 28, 31, 30, 19, 14, 24, 26, 38, 23, 32, 6)

a_{47} =(1, 22, 25, 5, 24, 9, 10, 21, 8, 38, 3, 33, 20, 31, 32, 17, 36, 16, 19)(2, 28, 23, 15, 29, 34, 30, 6, 27, 37, 4, 14, 35, 11, 7, 12, 26, 18, 13)

a_{48} =(1, 22)(2, 28)(5, 16)(6, 11)(7, 30)(8, 20)(9, 17)(10, 32)(12, 34)(13, 23)(14, 37)(15, 18)(19, 25)(21, 31)(24, 36)(26, 29)(27, 35)(33, 38)

a_{49} =(1, 3)(2, 4)(5, 21)(6, 15)(7, 12)(8, 25)(10, 24)(11, 26)(13, 14)(16, 20)(17, 32)(18, 35)(19, 33)(22, 38)(23, 27)(28, 37)(29, 30)(31, 36)

a_{50} =(1, 3, 22, 33, 25, 20, 5, 31, 24, 32, 9, 17, 10, 36, 21, 16, 8, 19, 38)(2, 4, 28, 14, 23, 35, 15, 11, 29, 7, 34, 12, 30, 26, 6, 18, 27, 13, 37)

a_{51} =(1, 15, 10, 37, 20, 12, 19, 23, 9, 27, 33, 7, 16, 28, 24, 6, 3, 11, 36, 2, 5, 30, 38, 35, 17, 13, 25, 34, 8, 14, 32, 18, 22, 29, 21, 4, 31, 26)

a_{52} =(1, 15)(2, 5)(3, 35)(4, 20)(6, 17)(7, 8)(9, 18)(10, 26)(11, 38)(12, 21)(13, 24)(14, 33)(16, 34)(19, 29)(22, 23)(25, 28)(27, 32)(30, 36)(31, 37)

a_{53} =(1, 27)(2, 8)(3, 18)(4, 16)(5, 34)(6, 22)(7, 31)(9, 15)(10, 23)(11, 32)(12, 20)(13, 38)(14, 36)(17, 35)(19, 37)(21, 28)(24, 29)(25, 30)(26, 33)

a_{54} =(1, 27, 36, 34, 31, 23, 3, 13, 21, 12, 24, 35, 22, 37, 16, 30, 32, 15, 33, 2, 8, 26, 9, 11, 25, 4, 19, 6, 17, 29, 20, 28, 38, 18, 10, 7, 5, 14)

a_{55} =(1, 9, 3, 17, 22, 10, 33, 36, 25, 21, 20, 16, 5, 8, 31, 19, 24, 38, 32)(2, 34, 4, 12, 28, 30, 14, 26, 23, 6, 35, 18, 15, 27, 11, 13, 29, 37, 7)

a_{56} =(1, 9)(2, 34)(3, 32)(4, 7)(5, 25)(6, 18)(8, 36)(10, 19)(11, 14)(12, 37)(13, 30)(15, 23)(16, 21)(17, 38)(22, 24)(26, 27)(28, 29)(31, 33)

a_{57} =(1, 10)(2, 30)(3, 17)(4, 12)(6, 13)(7, 14)(8, 16)(9, 22)(11, 35)(18, 27)(19, 21)(20, 31)(23, 29)(24, 25)(26, 37)(28, 34)(32, 33)(36, 38)

a_{58} =(1, 10, 20, 19, 9, 33, 16, 24, 3, 36, 5, 38, 17, 25, 8, 32, 22, 21, 31)(2, 30, 35, 13, 34, 14, 18, 29, 4, 26, 15, 37, 12, 23, 27, 7, 28, 6, 11)

a_{59} =(1, 6, 32, 23, 38, 26, 24, 14, 19, 30, 31, 28, 8, 12, 5, 4, 16, 34, 20, 2, 21, 7, 25, 37, 36, 29, 33, 13, 10, 11, 22, 27, 17, 15, 3, 18, 9, 35)

a_{60} =(1, 6)(2, 21)(3, 26)(4, 36)(5, 29)(7, 20)(8, 13)(9, 23)(10, 28)(11, 31)(12, 33)(14, 17)(15, 24)(16, 37)(18, 38)(19, 27)(22, 30)(25, 34)(32, 35)

a_{61} =(1, 29)(2, 24)(3, 11)(4, 31)(5, 28)(6, 36)(7, 38)(8, 12)(9, 13)(10, 18)(14, 20)(15, 22)(16, 30)(17, 27)(19, 34)(21, 26)(23, 25)(32, 37)(33, 35)

a_{62} =(1, 29, 8, 35, 36, 28, 9, 37, 31, 18, 25, 30, 3, 7, 19, 15, 21, 14, 17, 2, 24, 27, 20, 26, 22, 34, 38, 11, 16, 23, 10, 4, 32, 13, 5, 6, 33, 12)

a_{63} =(1, 38, 19, 8, 16, 21, 36, 10, 17, 9, 32, 24, 31, 5, 20, 25, 33, 22, 3)(2, 37, 13, 27, 18, 6, 26, 30, 12, 34, 7, 29, 11, 15, 35, 23, 14, 28, 4)

a_{64} =(1, 38)(2, 37)(3, 19)(4, 13)(5, 10)(6, 23)(8, 22)(9, 24)(11, 12)(14, 18)(15, 30)(16, 33)(17, 31)(20, 36)(21, 25)(26, 35)(27, 28)(29, 34)

a_{65} =(1, 25)(2, 23)(3, 33)(4, 14)(5, 19)(6, 7)(8, 31)(9, 36)(10, 17)(11, 27)(12, 30)(13, 15)(16, 24)(18, 29)(20, 38)(21, 32)(26, 34)(35, 37)

a_{66} =(1, 25, 24, 10, 8, 3, 20, 32, 36, 19, 22, 5, 9, 21, 38, 33, 31, 17, 16)(2, 23, 29, 30, 27, 4, 35, 7, 26, 13, 28, 15, 34, 6, 37, 14, 11, 12, 18)

a_{67} =(1, 14, 5, 7, 10, 18, 38, 28, 20, 29, 17, 6, 19, 4, 25, 11, 9, 26, 8, 2, 33, 15, 32, 30, 16, 37, 22, 35, 24, 12, 21, 13, 3, 23, 31, 34, 36, 27)

a_{68} =(1, 14)(2, 33)(3, 28)(4, 22)(5, 27)(6, 24)(7, 36)(8, 15)(9, 30)(10, 34)(11, 16)(12, 17)(13, 20)(18, 31)(19, 35)(21, 29)(23, 38)(25, 37)(26, 32)

a_{69} =(1, 2)(3, 37)(4, 38)(5, 26)(6, 20)(7, 9)(8, 14)(10, 11)(12, 24)(13, 22)(15, 36)(16, 23)(17, 29)(18, 25)(19, 28)(21, 35)(27, 33)(30, 31)(32, 34)

a_{70} =(1, 2)(3, 4)(5, 15)(6, 21)(7, 32)(8, 27)(9, 34)(10, 30)(11, 31)(12, 17)(13, 19)(14, 33)(16,

18)(20, 35)(22, 28)(23, 25)(24, 29)(26, 36)(37, 38)

a_{71} =(1, 31, 21, 22, 32, 8, 25, 17, 38, 5, 36, 3, 24, 16, 33, 9, 19, 20, 10)(2, 11, 6, 28, 7, 27, 23, 12, 37, 15, 26, 4, 29, 18, 14, 34, 13, 35, 30)

a_{72} =(1, 31)(2, 11)(3, 5)(4, 15)(6, 30)(7, 13)(8, 9)(10, 21)(12, 18)(14, 23)(16, 17)(19, 32)(20, 22)(24, 38)(25, 33)(27, 34)(28, 35)(29, 37)

a_{73} =(1, 16)(2, 18)(3, 21)(4, 6)(5, 32)(7, 15)(8, 38)(9, 20)(10, 33)(11, 29)(12, 23)(14, 30)(17, 25)(22, 36)(24, 31)(26, 28)(27, 37)(34, 35)

a_{74} =(1, 16, 17, 31, 33, 38, 21, 9, 5, 22, 19, 36, 32, 20, 3, 8, 10, 24, 25)(2, 18, 12, 11, 14, 37, 6, 34, 15, 28, 13, 26, 7, 35, 4, 27, 30, 29, 23)

a_{75} =(1, 12, 33, 6, 5, 13, 32, 4, 10, 23, 16, 11, 38, 34, 22, 26, 20, 27, 24, 2, 17, 14, 21, 15, 19, 7, 3, 30, 25, 18, 31, 37, 9, 28, 36, 35, 8, 29)

a_{76} =(1, 12)(2, 17)(3, 34)(4, 9)(5, 35)(6, 8)(7, 22)(10, 37)(11, 25)(13, 36)(14, 24)(15, 20)(16, 18)(19, 26)(21, 27)(23, 31)(28, 32)(29, 33)(30, 38)

Kernel has order 1 and is generated by:

There are 1 orbits on the BLT set.

The orbit length are [38]

The orbits are:

$O_0 = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34,$

(length 38)