

Authors: S. Della Fiore, S. Costa, M. Dalai

Title: Mathematica Output for the upper bound when $B=13$, $K=11$ and $\epsilon=1/25$

EXACT VALUE OF M_1 (Balanced-Balanced distributions)

Point number 1 of type $\{\{a,a,a,a,a,a,a,a,a,a,a,a\},\{d,d,d,d,d,d,d,d,d,d,d,d\}\}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.0150566,\{a>0.0769231,d->0.0769231\}\}$

Point number 2 of type $\{\{0,a,a,a,a,a,a,a,a,a,a\},\{1-12 d,d,d,d,d,d,d,d,d,d,d,d\}\}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.0150081,\{a>0.0833333,d->0.00333333\}\}$

Point number 3 of type $\{\{0,a,a,a,a,a,a,a,a,a,a,1-11 a\},\{1-11 d,d,d,d,d,d,d,d,d,d,d,0\}\}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.0150081,\{a>0.00363636,d->0.0833236\}\}$

Point number 4 of type $\{\{0,0,a,a,a,a,a,a,a,a,a\},\{1/2 (1-11 d),1/2 (1-11 d),d,d,d,d,d,d,d,d,d,d,d\}\}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.0103821,\{a>0.0909091,d->0.0734374\}\}$

Point number 5 of type $\{\{0,0,a,a,a,a,a,a,a,a,a,1-10 a\},\{1/2 (1-10 d),1/2 (1-10 d),d,d,d,d,d,d,d,d,d,d,0\}\}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.0150081,\{a>0.004,d->0.0833119\}\}$

Point number 6 of type $\{\{0,0,a,a,a,a,a,a,a,a,1/2 (1-9 a),1/2 (1-9 a)\},\{1/2 (1-9 d),1/2 (1-9 d),d,d,d,d,d,d,d,d,d,0,0\}\}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.0081873,\{a>0.00444444,d->0.0908901\}\}$

Point number 7 of type $\{\{0,0,0,a,a,a,a,a,a,a,a\},\{1/3 (1-10 d),1/3 (1-10 d),1/3 (1-10 d),d,d,d,d,d,d,d,d,d,d\}\}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.008847,\{a>0.1,d->0.0730326\}\}$

Point number 8 of type $\{\{0,0,0,a,a,a,a,a,a,a,a,1-9 a\},\{1/3 (1-9 d),1/3 (1-9 d),1/3 (1-9 d),d,d,d,d,d,d,d,d,d,0\}\}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.0150081,\{a>0.00444444,d->0.0832976\}\}$

Point number 9 of type $\{\{0,0,0,a,a,a,a,a,a,a,a,1/2 (1-8 a),1/2 (1-8 a)\},\{1/3 (1-8 d),1/3 (1-8 d),1/3 (1-8 d),d,d,d,d,d,d,d,d,d,0,0\}\}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.00818731,\{a>0.005,d->0.0908771\}\}$

Point number 10 of type $\{\{0,0,0,a,a,a,a,a,a,a,1/3 (1-7 a),1/3 (1-7 a),1/3 (1-7 a)\},\{1/3 (1-7 d),1/3 (1-7 d),1/3 (1-7 d),d,d,d,d,d,d,d,d,d,0,0,0\}\}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.00349817,\{a>0.00571429,d->0.0999778\}\}$

Point number 11 of type $\{\{0,0,0,0,a,a,a,a,a,a,a\},\{1/4 (1-9 d),1/4 (1-9 d),1/4 (1-9 d),1/4 (1-9 d),d,d,d,d,d,d,d,d,d\}\}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.00799426,\{a>0.111111,d->0.072551\}\}$

Point number 12 of type $\{ \{0,0,0,0,a,a,a,a,a,a,1-8 a\}, \{1/4 (1-8 d), 1/4 (1-8 d), 1/4 (1-8 d), 1/4 (1-8 d), d,d,d,d,d,d,d,0\} \}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.0150082, \{a>0.005, d>0.0832797\}\}$

Point number 13 of type $\{ \{0,0,0,0,a,a,a,a,a,a,1/2 (1-7 a), 1/2 (1-7 a)\}, \{1/4 (1-7 d), 1/4 (1-7 d), 1/4 (1-7 d), 1/4 (1-7 d), d,d,d,d,d,d,d,0\} \}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.00818731, \{a>0.00571429, d>0.0908603\}\}$

Point number 14 of type $\{ \{0,0,0,0,a,a,a,a,a,a,1/3 (1-6 a), 1/3 (1-6 a), 1/3 (1-6 a)\}, \{1/4 (1-6 d), 1/4 (1-6 d), 1/4 (1-6 d), 1/4 (1-6 d), d,d,d,d,d,d,d,0,0,0\} \}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.00349817, \{a>0.00666667, d>0.0999654\}\}$

Point number 15 of type $\{ \{0,0,0,0,a,a,a,a,a,a,1/4 (1-5 a), 1/4 (1-5 a), 1/4 (1-5 a), 1/4 (1-5 a)\}, \{1/4 (1-5 d), 1/4 (1-5 d), 1/4 (1-5 d), 1/4 (1-5 d), d,d,d,d,d,d,d,0,0,0\} \}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.000899208, \{a>0.008, d>0.111111\}\}$

Point number 16 of type $\{ \{24/25,a,a,a,a,a,a,a,a,a,a,a,a\}, \{0,d,d,d,d,d,d,d,d,d,d\} \}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.0150081, \{a>0.00333333, d>0.0833333\}\}$

Point number 17 of type $\{ \{24/25,a,a,a,a,a,a,a,a,a,a,a,1/25-11 a\}, \{0,d,d,d,d,d,d,d,d,d,d,0\} \}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.00846431, \{a>0., d>0.0909091\}\}$

Point number 18 of type $\{ \{24/25,a,a,a,a,a,a,a,a,a,a,1/2 (1/25-10 a), 1/2 (1/25-10 a)\}, \{0,d,d,d,d,d,d,d,d,d,d,0\} \}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.0036288, \{a>0., d>0.1\}\}$

Point number 19 of type $\{ \{24/25,a,a,a,a,a,a,a,a,a,a,1/3 (1/25-9 a), 1/3 (1/25-9 a), 1/3 (1/25-9 a)\}, \{0,d,d,d,d,d,d,d,d,d,d,0,0\} \}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.000936657, \{a>0., d>0.111111\}\}$

Point number 20 of type $\{ \{24/25,0,a,a,a,a,a,a,a,a,a,a\}, \{0,1-11 d,d,d,d,d,d,d,d,d,d,d\} \}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.0150081, \{a>0.00363636, d>0.0833236\}\}$

Point number 21 of type $\{ \{24/25,0,a,a,a,a,a,a,a,a,a,a,1/25-10 a\}, \{0,1-10 d,d,d,d,d,d,d,d,d,d,d\} \}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.00846431, \{a>0., d>0.0909091\}\}$

Point number 22 of type $\{ \{24/25,0,a,a,a,a,a,a,a,a,a,a,1/2 (1/25-9 a), 1/2 (1/25-9 a)\}, \{0,1-9 d,d,d,d,d,d,d,d,d,d,d,0\} \}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.0036288, \{a>0., d>0.1\}\}$

Point number 23 of type $\{ \{24/25,0,a,a,a,a,a,a,a,a,a,a,1/3 (1/25-8 a), 1/3 (1/25-8 a), 1/3 (1/25-8 a)\}, \{0,1-8 d,d,d,d,d,d,d,d,d,d,d,0,0\} \}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.000936657, \{a>0., d>0.111111\}\}$

Point number 24 of type $\{ \{24/25,0,0,a,a,a,a,a,a,a,a,a,a\}, \{0,1/2 (1-10 d), 1/2 (1-10 d), d,d,d,d,d,d,d,d,d,d\} \}$ with $\{a,d\} \leq 1/25$ has maximum value equal to $\{0.0150081,$

{a->0.004,d->0.0833119}}

Point number 25 of type {{24/25,0,0,a,a,a,a,a,a,a,1/25-9 a},{0,1/2 (1-9 d),1/2 (1-9 d),d,d,d,d,d,d,d,d,0}} with {a,d} <= 1/25 has maximum value equal to {0.00846431,{a->0.,d->0.0909091}}

Point number 26 of type {{24/25,0,0,a,a,a,a,a,a,a,1/2 (1/25-8 a),1/2 (1/25-8 a)}, {0,1/2 (1-8 d),1/2 (1-8 d),d,d,d,d,d,d,d,d,0}} with {a,d} <= 1/25 has maximum value equal to {0.0036288,{a->0.,d->0.1}}

Point number 27 of type {{24/25,0,0,a,a,a,a,a,a,a,1/3 (1/25-7 a),1/3 (1/25-7 a),1/3 (1/25-7 a)}, {0,1/2 (1-7 d),1/2 (1-7 d),d,d,d,d,d,d,d,d,0}} with {a,d} <= 1/25 has maximum value equal to {0.000936657,{a->0.,d->0.111111}}

Point number 28 of type {{24/25,0,0,0,a,a,a,a,a,a,a,a},{0,1/3 (1-9 d),1/3 (1-9 d),1/3 (1-9 d),d,d,d,d,d,d,d,d}} with {a,d} <= 1/25 has maximum value equal to {0.0150081,{a->0.00444444,d->0.0832976}}

Point number 29 of type {{24/25,0,0,0,a,a,a,a,a,a,a,1/25-8 a},{0,1/3 (1-8 d),1/3 (1-8 d),1/3 (1-8 d),d,d,d,d,d,d,d,d}} with {a,d} <= 1/25 has maximum value equal to {0.00846431,{a->0.,d->0.0909091}}

Point number 30 of type {{24/25,0,0,0,a,a,a,a,a,a,a,1/2 (1/25-7 a),1/2 (1/25-7 a)}, {0,1/3 (1-7 d),1/3 (1-7 d),1/3 (1-7 d),d,d,d,d,d,d,d,d,0}} with {a,d} <= 1/25 has maximum value equal to {0.0036288,{a->0.,d->0.1}}

Point number 31 of type {{24/25,0,0,0,a,a,a,a,a,a,a,1/3 (1/25-6 a),1/3 (1/25-6 a),1/3 (1/25-6 a)}, {0,1/3 (1-6 d),1/3 (1-6 d),1/3 (1-6 d),d,d,d,d,d,d,d,d,0}} with {a,d} <= 1/25 has maximum value equal to {0.000936657,{a->0.,d->0.111111}}

Point number 32 of type {{24/25,0,0,0,0,a,a,a,a,a,a,a,a},{0,1/4 (1-8 d),1/4 (1-8 d),1/4 (1-8 d),1/4 (1-8 d),d,d,d,d,d,d,d,d}} with {a,d} <= 1/25 has maximum value equal to {0.0150082,{a->0.005,d->0.0832797}}

Point number 33 of type {{24/25,0,0,0,0,a,a,a,a,a,a,a,1/25-7 a},{0,1/4 (1-7 d),1/4 (1-7 d),1/4 (1-7 d),1/4 (1-7 d),d,d,d,d,d,d,d,d,0}} with {a,d} <= 1/25 has maximum value equal to {0.00846431,{a->0.,d->0.0909091}}

Point number 34 of type {{24/25,0,0,0,0,a,a,a,a,a,a,a,1/2 (1/25-6 a),1/2 (1/25-6 a)}, {0,1/4 (1-6 d),1/4 (1-6 d),1/4 (1-6 d),1/4 (1-6 d),d,d,d,d,d,d,d,d,0}} with {a,d} <= 1/25 has maximum value equal to {0.0036288,{a->0.,d->0.1}}

Point number 35 of type {{24/25,0,0,0,0,a,a,a,a,a,a,a,1/3 (1/25-5 a),1/3 (1/25-5 a),1/3 (1/25-5 a)}, {0,1/4 (1-5 d),1/4 (1-5 d),1/4 (1-5 d),1/4 (1-5 d),d,d,d,d,d,d,d,d,0}} with {a,d} <= 1/25 has maximum value equal to {0.000936657,{a->0.,d->0.111111}}

Point number 36 of type {{24/25,a,a,a,a,a,a,a,a,a,a,0}, {0,d,d,d,d,d,d,d,d,d,d,24/25}} with {a,d} <= 1/25 has maximum value equal to {3.41673*10^-12,{a->0.00363636,d->0.00363636}}

Point number 37 of type $\{\{24/25, 0, a, a, a, a, a, a, a, a, a, 0\}, \{0, 1/25-10 d, d, d, d, d, d, d, d, d, d, d, 24/25\}\}$ with $\{a, d\} \leq 1/25$ has maximum value equal to $\{2.70678 \cdot 10^{-12}, \{a > 0.004, d > 0.00363464\}\}$

Point number 38 of type $\{\{24/25, 0, a, a, a, a, a, a, a, 1/25-9 a, 0\}, \{0, 1/25-9 d, d, d, d, d, d, d, d, d, 0, 24/25\}\}$ with $\{a, d\} \leq 1/25$ has maximum value equal to $\{1.99743 \cdot 10^{-12}, \{a > 0.00399741, d > 0.00399741\}\}$

Point number 39 of type $\{\{24/25, 0, 0, a, a, a, a, a, a, a, 0\}, \{0, 1/2 (1/25-9 d), 1/2 (1/25-9 d), d, d, d, d, d, d, d, d, d, 24/25\}\}$ with $\{a, d\} \leq 1/25$ has maximum value equal to $\{2.17206 \cdot 10^{-12}, \{a > 0.00444444, d > 0.00363339\}\}$

Point number 40 of type $\{\{24/25, 0, 0, a, a, a, a, a, a, a, 1/25-8 a, 0\}, \{0, 1/2 (1/25-8 d), 1/2 (1/25-8 d), d, d, d, d, d, d, d, d, 0, 24/25\}\}$ with $\{a, d\} \leq 1/25$ has maximum value equal to $\{1.46308 \cdot 10^{-12}, \{a > 0.00443912, d > 0.00399677\}\}$

Point number 41 of type $\{\{24/25, 0, 0, a, a, a, a, a, a, a, 1/2 (1/25-7 a), 1/2 (1/25-7 a), 0\}, \{0, 1/2 (1/25-7 d), 1/2 (1/25-7 d), d, d, d, d, d, d, d, d, 0, 24/25\}\}$ with $\{a, d\} \leq 1/25$ has maximum value equal to $\{9.2875 \cdot 10^{-13}, \{a > 0.00443863, d > 0.00443863\}\}$

Point number 42 of type $\{\{24/25, 0, 0, 0, a, a, a, a, a, a, a, 0\}, \{0, 1/3 (1/25-8 d), 1/3 (1/25-8 d), 1/3 (1/25-8 d), d, d, d, d, d, d, d, d, 24/25\}\}$ with $\{a, d\} \leq 1/25$ has maximum value equal to $\{1.8405 \cdot 10^{-12}, \{a > 0.005, d > 0.00363361\}\}$

Point number 43 of type $\{\{24/25, 0, 0, 0, a, a, a, a, a, a, a, 1/25-7 a, 0\}, \{0, 1/3 (1/25-7 d), 1/3 (1/25-7 d), 1/3 (1/25-7 d), d, d, d, d, d, d, d, d, 0, 24/25\}\}$ with $\{a, d\} \leq 1/25$ has maximum value equal to $\{1.13185 \cdot 10^{-12}, \{a > 0.00498009, d > 0.0039972\}\}$

Point number 44 of type $\{\{24/25, 0, 0, 0, a, a, a, a, a, a, 1/2 (1/25-6 a), 1/2 (1/25-6 a), 0\}, \{0, 1/3 (1/25-6 d), 1/3 (1/25-6 d), 1/3 (1/25-6 d), d, d, d, d, d, d, d, 0, 24/25\}\}$ with $\{a, d\} \leq 1/25$ has maximum value equal to $\{5.97316 \cdot 10^{-13}, \{a > 0.00497981, d > 0.00444088\}\}$

Point number 45 of type $\{\{24/25, 0, 0, 0, a, a, a, a, a, 1/3 (1/25-5 a), 1/3 (1/25-5 a), 1/3 (1/25-5 a), 0\}, \{0, 1/3 (1/25-5 d), 1/3 (1/25-5 d), 1/3 (1/25-5 d), d, d, d, d, d, d, d, 0, 24/25\}\}$ with $\{a, d\} \leq 1/25$ has maximum value equal to $\{2.65363 \cdot 10^{-13}, \{a > 0.00499037, d > 0.00499034\}\}$

Point number 46 of type $\{\{24/25, 1/25, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{0, a, (1-a)/11, (1-a)/11, (1-a)/11, (1-a)/11, (1-a)/11, (1-a)/11, (1-a)/11, (1-a)/11, (1-a)/11\}\}$ with $\{a\} \leq 1/25$ has maximum value equal to $\{0.015009, \{a > 0.0821382\}\}$

Point number 47 of type $\{\{24/25, 1/25, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{0, 0, 1/11, 1/11, 1/11, 1/11, 1/11, 1/11, 1/11, 1/11, 1/11, 1/11\}\}$ with $\{ \} \leq 1/25$ has maximum value equal to $0.008464309906525403`$

Point number 48 of type $\{\{24/25, 1/25, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{0, 0, 0, 1/10, 1/10, 1/10, 1/10, 1/10, 1/10, 1/10, 1/10, 1/10\}\}$ with $\{ \} \leq 1/25$ has maximum value equal to $0.0036288`$

Point number 49 of type $\{\{24/25, 1/25, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{0, 0, 0, 0, 1/9, 1/9, 1/9, 1/9, 1/9, 1/9, 1/9, 1/9, 1/9\}\}$ with $\{\} \leq 1/25$ has maximum value equal to 0.000936656708416885`

Max attained in point 1 with value 0.01505655235423248`.

EXACT VALUE OF M_2 (Unbalanced-Balanced distributions)

Point number 1 of type $\{\{a, a, a, a, a, a, a, a, a, a, a, a\}, \{d, d, d, d, d, d, d, d, d, d, d, d\}\}$ with value $\{0.0150566, \{a \rightarrow 0.0769231, d \rightarrow 0.0769231\}\}$

Point number 2 of type $\{\{0, a, a, a, a, a, a, a, a, a, a, a\}, \{1-12 d, d, d, d, d, d, d, d, d, d, d, d\}\}$ with value $\{0.0154723, \{a \rightarrow 0.0833333, d \rightarrow 0.\}\}$

Point number 3 of type $\{\{0, a, a, a, a, a, a, a, a, a, a, 1-11 a\}, \{1-11 d, d, d, d, d, d, d, d, d, d, d, 0\}\}$ with value $\{0.0154723, \{a \rightarrow 0., d \rightarrow 0.0833333\}\}$

Point number 4 of type $\{\{0, 0, a, a, a, a, a, a, a, a, a, a\}, \{1/2 (1-11 d), 1/2 (1-11 d), d, d, d, d, d, d, d, d, d, d, d, d\}\}$ with value $\{0.0103821, \{a \rightarrow 0.0909091, d \rightarrow 0.0734374\}\}$

Point number 5 of type $\{\{0, 0, a, a, a, a, a, a, a, a, a, 1-10 a\}, \{1/2 (1-10 d), 1/2 (1-10 d), d, d, d, d, d, d, d, d, d, d, d, 0\}\}$ with value $\{0.0154723, \{a \rightarrow 0., d \rightarrow 0.0833333\}\}$

Point number 6 of type $\{\{0, 0, a, a, a, a, a, a, a, a, 1/2 (1-9 a), 1/2 (1-9 a)\}, \{1/2 (1-9 d), 1/2 (1-9 d), d, d, d, d, d, d, d, d, d, 0, 0\}\}$ with value $\{0.00846431, \{a \rightarrow 0., d \rightarrow 0.0909091\}\}$

Point number 7 of type $\{\{0, 0, 0, a, a, a, a, a, a, a, a, a\}, \{1/3 (1-10 d), 1/3 (1-10 d), 1/3 (1-10 d), d, d, d, d, d, d, d, d, d, d, d, d\}\}$ with value $\{0.008847, \{a \rightarrow 0.1, d \rightarrow 0.0730326\}\}$

Point number 8 of type $\{\{0, 0, 0, a, a, a, a, a, a, a, a, 1-9 a\}, \{1/3 (1-9 d), 1/3 (1-9 d), 1/3 (1-9 d), d, d, d, d, d, d, d, d, d, d, d, 0\}\}$ with value $\{0.0154723, \{a \rightarrow 0., d \rightarrow 0.0833333\}\}$

Point number 9 of type $\{\{0, 0, 0, a, a, a, a, a, a, a, 1/2 (1-8 a), 1/2 (1-8 a)\}, \{1/3 (1-8 d), 1/3 (1-8 d), 1/3 (1-8 d), d, d, d, d, d, d, d, d, d, 0, 0\}\}$ with value $\{0.00846431, \{a \rightarrow 0., d \rightarrow 0.0909091\}\}$

Point number 10 of type $\{\{0, 0, 0, a, a, a, a, a, a, a, 1/3 (1-7 a), 1/3 (1-7 a), 1/3 (1-7 a)\}, \{1/3 (1-7 d), 1/3 (1-7 d), 1/3 (1-7 d), d, d, d, d, d, d, d, d, d, 0, 0, 0\}\}$ with value $\{0.0036288, \{a \rightarrow 0., d \rightarrow 0.1\}\}$

Point number 11 of type $\{\{0, 0, 0, 0, a, a, a, a, a, a, a, a\}, \{1/4 (1-9 d), 1/4 (1-9 d), 1/4 (1-9 d), 1/4 (1-9 d), d, d, d, d, d, d, d, d, d, d, d, d\}\}$ with value $\{0.00799426, \{a \rightarrow 0.111111, d \rightarrow 0.072551\}\}$

Point number 12 of type $\{\{0, 0, 0, 0, a, a, a, a, a, a, a, 1-8 a\}, \{1/4 (1-8 d), 1/4 (1-8 d), 1/4 (1-8 d), 1/4 (1-8 d), d, d, d, d, d, d, d, d, d, 0\}\}$ with value $\{0.0154723, \{a \rightarrow 0., d \rightarrow 0.0833333\}\}$

Point number 13 of type $\{\{0, 0, 0, 0, a, a, a, a, a, a, 1/2 (1-7 a), 1/2 (1-7 a)\}, \{1/4 (1-7 d), 1/4 (1-7 d), 1/4 (1-7 d), 1/4 (1-7 d), d, d, d, d, d, d, d, d, d, 0, 0\}\}$ with value $\{0.00846431, \{a \rightarrow 0., d \rightarrow 0.0909091\}\}$

Point number 14 of type $\{\{0, 0, 0, 0, a, a, a, a, a, a, 1/3 (1-6 a), 1/3 (1-6 a), 1/3 (1-6 a)\}, \{1/4$

(1-6 d), 1/4 (1-6 d), 1/4 (1-6 d), 1/4 (1-6 d), d, d, d, d, d, d, 0, 0, 0}} with value {0.0036288, {a->0., d->0.1}}

Point number 15 of type {{0, 0, 0, 0, a, a, a, a, a, 1/4 (1-5 a), 1/4 (1-5 a), 1/4 (1-5 a), 1/4 (1-5 a)}, {1/4 (1-5 d), 1/4 (1-5 d), 1/4 (1-5 d), 1/4 (1-5 d), d, d, d, d, d, 0, 0, 0, 0}} with value {0.000936657, {a->0., d->0.111111}}

Max attained in point 2 with value 0.015472286522633745`.

EXACT VALUE OF M_3 (Unbalanced-Unbalanced distributions on the same coordinate)

Point number 1 of type {{24/25, a, a, a, a, a, a, a, a, a, a, a}, {24/25, d, d, d, d, d, d, d, d, d, d, d, d}} has maximum value equal to {7.79557*10⁻¹⁴, {a->0.00333333, d->0.00333333}}

Point number 2 of type {{24/25, 0, a, a, a, a, a, a, a, a, a, a}, {24/25, 1/25-11 d, d, d, d, d, d, d, d, d, d, d, d}} has maximum value equal to {7.25126*10⁻¹⁴, {a->0.00363636, d->0.}}

Point number 3 of type {{24/25, 0, a, a, a, a, a, a, a, a, a, 1/25-10 a}, {24/25, 1/25-10 d, d, d, d, d, d, d, d, d, d, d, 0}} has maximum value equal to {7.25126*10⁻¹⁴, {a->0., d->0.00363636}}

Point number 4 of type {{24/25, 0, 0, a, a, a, a, a, a, a, a, a}, {24/25, 1/2 (1/25-10 d), 1/2 (1/25-10 d), d, d, d, d, d, d, d, d, d, d, d, d}} has maximum value equal to {5.48907*10⁻¹⁴, {a->0.004, d->0.00316364}}

Point number 5 of type {{24/25, 0, 0, a, a, a, a, a, a, a, a, 1/25-9 a}, {24/25, 1/2 (1/25-9 d), 1/2 (1/25-9 d), d, d, d, d, d, d, d, d, d, 0}} has maximum value equal to {7.25126*10⁻¹⁴, {a->0., d->0.00363636}}

Point number 6 of type {{24/25, 0, 0, a, a, a, a, a, a, a, 1/2 (1/25-8 a), 1/2 (1/25-8 a)}, {24/25, 1/2 (1/25-8 d), 1/2 (1/25-8 d), d, d, d, d, d, d, d, d, d, 0, 0}} has maximum value equal to {4.20461*10⁻¹⁴, {a->0., d->0.004}}

Point number 7 of type {{24/25, 0, 0, 0, a, a, a, a, a, a, a, a}, {24/25, 1/3 (1/25-9 d), 1/3 (1/25-9 d), 1/3 (1/25-9 d), d, d, d, d, d, d, d, d, d, d, d, d}} has maximum value equal to {4.66816*10⁻¹⁴, {a->0.00444444, d->0.00313766}}

Point number 8 of type {{24/25, 0, 0, 0, a, a, a, a, a, a, 1/25-8 a}, {24/25, 1/3 (1/25-8 d), 1/3 (1/25-8 d), 1/3 (1/25-8 d), d, d, d, d, d, d, d, d, d, 0}} has maximum value equal to {7.25126*10⁻¹⁴, {a->0., d->0.00363636}}

Point number 9 of type {{24/25, 0, 0, 0, a, a, a, a, a, a, 1/2 (1/25-7 a), 1/2 (1/25-7 a)}, {24/25, 1/3 (1/25-7 d), 1/3 (1/25-7 d), 1/3 (1/25-7 d), d, d, d, d, d, d, d, d, d, 0, 0}} has maximum value equal to {4.20461*10⁻¹⁴, {a->0., d->0.004}}

Point number 10 of type {{24/25, 0, 0, 0, a, a, a, a, a, a, 1/3 (1/25-6 a), 1/3 (1/25-6 a), 1/3 (1/25-6 a)}, {24/25, 1/3 (1/25-6 d), 1/3 (1/25-6 d), 1/3 (1/25-6 d), d, d, d, d, d, d, d, 0, 0, 0}} has

maximum value equal to $\{1.93386 \cdot 10^{-14}, \{a > 0., d > 0.00444444\}\}$

Point number 11 of type $\{\{24/25, 0, 0, 0, 0, a, a, a, a, a, a, a\}, \{24/25, 1/4 (1/25-8 d), 1/4 (1/25-8 d), 1/4 (1/25-8 d), 1/4 (1/25-8 d), d, d, d, d, d, d, d\}\}$ has maximum value equal to $\{4.17501 \cdot 10^{-14}, \{a > 0.005, d > 0.00311323\}\}$

Point number 12 of type $\{\{24/25, 0, 0, 0, 0, a, a, a, a, a, 1/25-7 a\}, \{24/25, 1/4 (1/25-7 d), 1/4 (1/25-7 d), 1/4 (1/25-7 d), 1/4 (1/25-7 d), d, d, d, d, d, d, 0\}\}$ has maximum value equal to $\{7.25126 \cdot 10^{-14}, \{a > 0., d > 0.00363636\}\}$

Point number 13 of type $\{\{24/25, 0, 0, 0, 0, a, a, a, a, a, 1/2 (1/25-6 a), 1/2 (1/25-6 a)\}, \{24/25, 1/4 (1/25-6 d), 1/4 (1/25-6 d), 1/4 (1/25-6 d), 1/4 (1/25-6 d), d, d, d, d, d, 0, 0\}\}$ has maximum value equal to $\{4.20461 \cdot 10^{-14}, \{a > 0., d > 0.004\}\}$

Point number 14 of type $\{\{24/25, 0, 0, 0, 0, a, a, a, a, 1/3 (1/25-5 a), 1/3 (1/25-5 a), 1/3 (1/25-5 a)\}, \{24/25, 1/4 (1/25-5 d), 1/4 (1/25-5 d), 1/4 (1/25-5 d), 1/4 (1/25-5 d), d, d, d, d, d, 0, 0, 0\}\}$ has maximum value equal to $\{1.93386 \cdot 10^{-14}, \{a > 0., d > 0.00444444\}\}$

Point number 15 of type $\{\{24/25, 0, 0, 0, 0, a, a, a, 1/4 (1/25-4 a), 1/4 (1/25-4 a), 1/4 (1/25-4 a), 1/4 (1/25-4 a)\}, \{24/25, 1/4 (1/25-4 d), 1/4 (1/25-4 d), 1/4 (1/25-4 d), 1/4 (1/25-4 d), d, d, d, d, 0, 0, 0, 0\}\}$ has maximum value equal to $\{5.75482 \cdot 10^{-15}, \{a > 0.00444444, d > 0.00444444\}\}$

Point number 16 of type $\{\{24/25, 1/25, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{24/25, a, 1/11 (1/25-a), 1/11 (1/25-a), 1/11 (1/25-a), 1/11 (1/25-a), 1/11 (1/25-a), 1/11 (1/25-a), 1/11 (1/25-a), 1/11 (1/25-a)\}\}$ has maximum value equal to $\{7.25126 \cdot 10^{-14}, \{a > 0.\}\}$

Point number 17 of type $\{\{24/25, 1/25, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{24/25, 0, 1/275, 1/275, 1/275, 1/275, 1/275, 1/275, 1/275, 1/275, 1/275, 1/275\}\}$ has maximum value equal to $7.251260807453085 \cdot 10^{-14}$

Point number 18 of type $\{\{24/25, 1/25, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{24/25, 0, 0, 1/250, 1/250, 1/250, 1/250, 1/250, 1/250, 1/250, 1/250, 1/250\}\}$ has maximum value equal to $4.204605210624 \cdot 10^{-14}$

Point number 19 of type $\{\{24/25, 1/25, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{24/25, 0, 0, 0, 1/225, 1/225, 1/225, 1/225, 1/225, 1/225, 1/225, 1/225\}\}$ has maximum value equal to $1.933864661284654 \cdot 10^{-14}$

Point number 20 of type $\{\{24/25, 1/25, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}, \{24/25, 0, 0, 0, 0, 1/200, 1/200, 1/200, 1/200, 1/200, 1/200, 1/200, 1/200\}\}$ has maximum value equal to $5.4432 \cdot 10^{-15}$

Max attained in point 1 with value $7.795568724279835 \cdot 10^{-14}$.

EXACT VALUE OF M_4 (Unbalanced-Unbalanced distributions on different coordinates)

Point number 1 of type $\{\{24/25, a, a, a, a, a, a, a, a, a, 0\}, \{0, d, d, d, d, d, d, d, d, d, d, 24/25\}\}$ has maximum value equal to $\{3.41673 \cdot 10^{-12}, \{a \rightarrow 0.00363636, d \rightarrow 0.00363636\}\}$

Point number 2 of type $\{\{24/25, 0, a, a, a, a, a, a, a, a, a, 0\}, \{0, 1/25-10d, d, d, d, d, d, d, d, d, d, 24/25\}\}$ has maximum value equal to $\{2.70678 \cdot 10^{-12}, \{a \rightarrow 0.004, d \rightarrow 0.00363464\}\}$

Point number 3 of type $\{\{24/25, 0, a, a, a, a, a, a, a, a, 1/25-9 a, 0\}, \{0, 1/25-9 d, d, d, d, d, d, d, d, d, 0, 24/25\}\}$ has maximum value equal to $\{1.99743 \cdot 10^{-12}, \{a > 0.00399741, d > 0.00399741\}\}$

Point number 4 of type $\{\{24/25, 0, 0, a, a, a, a, a, a, a, 0\}, \{0, 1/2 \text{ (1/25-9 d)}, 1/2 \text{ (1/25-9 d)}, d, d, d, d, d, d, d, d, 24/25\}\}$ has maximum value equal to $\{2.17206 \cdot 10^{-12}, \{a \rightarrow 0.00444444, d \rightarrow 0.0036339\}\}$

Point number 5 of type $\{\{24/25, 0, 0, a, a, a, a, a, a, a, 1/25-8 a, 0\}, \{0, 1/2 (1/25-8 d), 1/2 (1/25-8 d), d, d, d, d, d, d, d, 0, 24/25\}\}$ has maximum value equal to $\{1.46308 \cdot 10^{-12}, \{a \rightarrow 0.00443912, d \rightarrow 0.00399677\}\}$

Point number 6 of type $\{\{24/25, 0, 0, a, a, a, a, a, a, 1/2 (1/25-7 a), 1/2 (1/25-7 a), 0\}, \{0, 1/2 (1/25-7 d), 1/2 (1/25-7 d), d, d, d, d, d, d, 0, 0, 24/25\}\}$ has maximum value equal to $\{9.2875 \cdot 10^{-13}, \{a > 0.00443863, d > 0.00443863\}\}$

Point number 7 of type $\{\{24/25, 0, 0, 0, a, a, a, a, a, a, 0\}, \{0, 1/3 \text{ (1/25-8 d)}, 1/3 \text{ (1/25-8 d)}, 1/3 \text{ (1/25-8 d)}, d, d, d, d, d, d, d, 24/25\}\}$ has maximum value equal to $\{1.8405 \cdot 10^{-12}, \{a \rightarrow 0.005, d \rightarrow 0.00363361\}\}$

Point number 8 of type $\{\{24/25, 0, 0, 0, a, a, a, a, a, a, 1/25-7 a, 0\}, \{0, 1/3 (1/25-7 d), 1/3 (1/25-7 d), 1/3 (1/25-7 d), d, d, d, d, d, d, 0, 24/25\}\}$ has maximum value equal to $\{1.13185 \cdot 10^{-12}, \{a \rightarrow 0.00498009, d \rightarrow 0.0039972\}\}$

Point number 9 of type $\{\{24/25, 0, 0, 0, a, a, a, a, a, 1/2 (1/25-6 a), 1/2 (1/25-6 a), 0\}, \{0, 1/3 (1/25-6 d), 1/3 (1/25-6 d), 1/3 (1/25-6 d), d, d, d, d, d, 0, 0, 24/25\}\}$ has maximum value equal to $\{5.97316 \cdot 10^{-13}, \{a \rightarrow 0.00497981, d \rightarrow 0.00444088\}\}$

Point number 10 of type $\{\{24/25, 0, 0, 0, a, a, a, a, 1/3 (1/25-5 a), 1/3 (1/25-5 a), 1/3 (1/25-5 a), 0\}, \{0, 1/3 (1/25-5 d), 1/3 (1/25-5 d), 1/3 (1/25-5 d), d, d, d, d, 0, 0, 0, 24/25\}\}$ has maximum value equal to $\{2.65363 \cdot 10^{-13}, \{a \rightarrow 0.00499037, d \rightarrow 0.00499034\}\}$

Point number 11 of type $\{ \{1,0,0,0,0,0,0,0,0,0,0,0\}, \{0,1/275,1/275,1/275,1/275,1/275,1/275,1/275,1/275,1/275,1/275,24/25\} \}$ has maximum value equal to $1.759562368516003 \cdot 10^{-12}$

Point number 12 of type $\{\{1,0,0,0,0,0,0,0,0,0,0,0\}, \{0,0,1/250,1/250,1/250,1/250,1/250,1/250,1/250,1/250,1/250,24/25\}\}$ has maximum value equal to $1.0283208671232 \cdot 10^{-12}$

Point number 13 of type $\{\{1,0,0,0,0,0,0,0,0,0,0,0\},$
 $\{0,0,0,1/225,1/225,1/225,1/225,1/225,1/225,1/225,1/225,24/25\}\}$ has maximum

value equal to $4.775732308530539 \times 10^{-13}$

Point number 14 of type $\{1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0\}$,
 $\{0, 0, 0, 0, 1/200, 1/200, 1/200, 1/200, 1/200, 1/200, 1/200, 24/25\}$ has maximum
value equal to 1.3608×10^{-13}

Max attained in point 1 with value $3.416734062005212 \times 10^{-12}$.

UPPER BOUND ON THE RATE

The bound on the rate for $b=13$, $k=11$ and $\epsilon=1/25$ is 0.01475013479436451
and $\eta_0=0.9738334826869082$