

**Recherche de la meilleure valeur pour maxiter:**

<b>Code</b>	<b>( 100 % , 90 % , 80 % )</b>
(GF(2),96,32)	(23, 8, 6), (23, 9, 7), (21, 8, 6), (20, 8, 6), (1, 1, 1),
(GF(3),96,32)	(10, 4, 1), (10, 4, 3), (1, 1, 1),
(GF(4),96,32)	(8, 3, 1), (1, 1, 1),
(GF(5),96,32)	(7, 3, 1), (6, 3, 1), (1, 1, 1),
(GF(2),99,33)	(27, 8, 6), (22, 9, 7), (21, 9, 6), (1, 1, 1),
(GF(3),99,33)	(15, 4, 3), (13, 4, 3), (11, 4, 3), (10, 4, 3), (1, 1, 1),
(GF(4),99,33)	(9, 3, 1), (7, 3, 1), (1, 1, 1),
(GF(5),99,33)	(6, 3, 1), (1, 1, 1),
(GF(2),128,32)	(28, 8, 6), (27, 8, 6), (22, 8, 6), (21, 8, 6), (1, 1, 1),
(GF(3),128,32)	(12, 4, 3), (12, 4, 1), (1, 1, 1),
(GF(4),128,32)	(9, 3, 1), (8, 3, 1), (7, 3, 1), (1, 1, 1),
(GF(5),128,32)	(6, 3, 1), (1, 1, 1),
(GF(2),60,15)	(23, 8, 6), (20, 8, 6), (19, 8, 6), (1, 1, 1),
(GF(3),60,15)	(14, 4, 1), (11, 4, 3), (10, 4, 3), (9, 4, 3), (1, 1, 1),
(GF(4),60,15)	(10, 3, 1), (9, 4, 3), (8, 3, 1), (7, 4, 3),
(GF(5),60,15)	(8, 3, 1), (7, 3, 1), (6, 3, 1), (1, 1, 1),
(GF(2),68,17)	(30, 8, 6), (26, 8, 7), (25, 8, 6), (24, 8, 6), (21, 8, 6), (22, 8, 6)
(GF(3),68,17)	(11, 4, 3), (11, 5, 4), (9, 4, 3), (1, 1, 1),
(GF(4),68,17)	(10, 4, 3), (9, 4, 3), (1, 1, 1),
(GF(5),68,17)	(9, 3, 1), (7, 3, 1), (1, 1, 1)
(GF(2),36,9)	(30, 8, 6), (26, 8, 6), (25, 9, 7), (25, 8, 6), (22, 9, 7), (21, 9, 7), (1, 1, 1),
(GF(2),40,10)	(26, 8, 6), (21, 8, 6), (20, 7, 6), (19, 8, 6), (1, 1, 1),
(GF(2), 32, 8)	(34, 13, 10), (32, 9, 7), (28, 10, 7), (26, 8, 6), (25, 10, 7), (21, 8, 6), (1, 1, 1),
(GF(2),35,6)	(6, 3, 2), (4, 2, 1), (1, 1, 1),
(GF(2), 96, 32)	(24, 8, 6), (22, 8, 6), (21, 8, 6), (20, 9, 6), (1, 1, 1),

(GF(2), 44, 11)	(28, 10, 7), (27, 9, 7), (22, 9, 6), (21, 7, 6), (20, 8, 6), (19, 8, 6)
(GF(2), 111, 11)	(13, 4, 3), (10, 4, 3), (10, 4, 1), (9, 4, 3), (1, 1, 1),
(GF(2), 99, 33)	(32, 8, 6), (29, 8, 6), (28, 9, 6), (25, 8, 6), (24, 9, 6), (24, 8, 6), (22, 8, 6), (20, 8, 6),
(GF(2), 111, 33)	(1, 1, 1)
(GF(2), 48, 12)	(28, 9, 7), (22, 8, 6), (21, 9, 7), (20, 8, 6), (19, 8, 6), (1, 1, 1)
(GF(2), 60, 14)	(4, 2, 1), (1, 1, 1),
(GF(2), 100, 14)	(7, 3, 1), (6, 3, 1), (5, 3, 1), (1, 1, 1),
(GF(2), 100, 20)	(33, 8, 6), (30, 8, 6), (23, 8, 6), (22, 9, 7), (22, 8, 6), (20, 8, 6), (19, 8, 6), (1, 1, 1),
(GF(2), 100, 25)	(34, 8, 6), (29, 8, 6), (28, 8, 6), (27, 8, 6), (26, 8, 6), (25, 8, 6), (20, 8, 6), (1, 1, 1),
(GF(2), 95, 25)	(1, 1, 1)
(GF(2), 195, 13)	(32, 8, 6), (30, 8, 6), (26, 8, 6), (25, 8, 6), (23, 8, 6), (22, 9, 6), (21, 8, 6), (1, 1, 1),
(GF(2), 200, 22)	(7, 3, 1), (6, 3, 2), (6, 3, 1), (1, 1, 1),
(GF(2), 78, 11)	(13, 4, 3), (11, 4, 3), (10, 4, 3), (9, 4, 3), (8, 4, 3), (1, 1, 1),
(GF(2), 500, 100)	(38, 8, 6), (26, 8, 6), (23, 8, 6), (22, 8, 6), (21, 8, 6), (1, 1, 1),
(GF(2), 300, 60)	(32, 8, 6), (30, 8, 6), (22, 8, 6), (21, 8, 6), (18, 8, 6), (1, 1, 1),
(GF(2), 123, 13)	(3, 2, 1), (1, 1, 1),

On prend  $\max_{iter} = 20$

### **Comparaison du temps d'exécution entre minimum\_distance et Zimmerman**

<b>Code</b>	<b>minimum_distance (s)</b>	<b>Zimmerman (s)</b>	<b>minimum_distance/Zimmerman</b>
(GF(13), 58, 6)	2,19	60	0,0365
(GF(4), 73, 11)	2,23	37,1	0,060107817
(GF(11), 44, 8)	78	341	0,2287390029
(GF(25), 28, 5)	3,64	10,8	0,337037037
(GF(3), 73, 15)	9,22	26,1	0,353256705
(GF(7), 34, 7)	0,433	1,05	0,4123809524

(GF(5), 55, 12)	110	266	0,4135338346
(GF(3), 80, 17)	85	197	0,4314720812
(GF(4),73,15)	500	832	0,6009615385
(GF(7),49,10)	122	193	0,6321243523
(GF(2), 135, 32)	157	185	0,8486486486
(GF(9), 44, 9)	144	133	1,082706767
(GF(7),36,9)	15,2	11,5	1,32173913
(GF(7), 36, 9)	14,7	11,1	1,324324324
(GF(5), 48, 12)	100	71	1,408450704
(GF(3), 64, 16)	25,5	16,2	1,574074074
(GF(5), 43, 12)	102	61	1.6721311475
(GF(7), 31, 8)	3,76	2,18	1,724770642
(GF(9), 47, 10)	1353	757	1,787318362
(GF(2), 128, 32)	136	69	1,971014493
(GF(9), 32, 8)	14,6	7,21	2,024965326
(GF(3), 60, 15)	8,56	3,91	2,189258312
(GF(5), 44, 11)	20,6	9,12	2,25877193
(GF(3), 68, 17)	78	31	2,516129032
(GF(7), 40, 10)	107	34,8	3,074712644
(GF(7),39,10)	111	35,3	3,144475921
(GF(9), 34, 9)	131	40,4	3,242574257
(GF(9), 36, 9)	134	40,8	3,284313725
(GF(5),44,15)	> 1200	319	3,761755486
(GF(8), 40, 10)	342	80	4,275
(GF(8),39,10)	357	79	4,518987342
(GF(7),36,11)	738	151	4,887417219
(GF(2),111,33)	273	51,9	5,260115607
(GF(3), 49, 17)	72	11	6,545454545

[illegible]