

$\mu=10$

$n=6$						
X	$[0]$	$[1]$	$[2]$	$[3]$	$[4]$	$[5]$
1	0.5	0.5	0.5	0.5	0.5	0.5
2	0.1	0.1	0.2	0.5	0.5	0.5
3	0	0	0	0	0	0.1
4	0.1	0	0.2	0.5	0.5	1
5	1	0	0	0	0	0
6	0	1	0	0	0	0
7	0	0	1	0	0	0
8	0	0	0	1	0	0
9	0	0	0	0	1	0
10	0	0	0	0	0	1

$m=3$			
Φ	$[0]$	$[1]$	$[2]$
$f1(x1)$	$\sum_{i=1}^6 (x_1[i] - e_1[i])^2$	$\sum_{i=1}^6 (x_1[i] - e_2[i])^2$	$\sum_{i=1}^6 (x_1[i] - e_3[i])^2$
...			
$f10(x10)$	$\sum_{i=1}^6 (x_{10}[i] - e_1[i])^2$	$\sum_{i=1}^6 (x_{10}[i] - e_2[i])^2$	$\sum_{i=1}^6 (x_{10}[i] - e_3[i])^2$

$en = [n, n, \dots, n], m \text{ times}$

Mapping

tv	$[0]$	$[1]$	$[2]$	tv _s controlling this	rank
1	1.5	13.5	37.5	none	0
2	3.1	17.21	43.41	1, 4	5
3	5.81	23.61	53.41	1, 3, 4	3
4	2.95	16.35	41.75	1	1
5	5	21	49	1, 2, 3, 4	4
6	5	21	49	1, 2, 3, 4	4
7	5	21	49	1, 2, 3, 4	4
8	5	21	49	1, 2, 3, 4	4
9	5	21	49	1, 2, 3, 4	4
10	5	21	49	1, 2, 3, 4	4

Pareto Sorting

elem	x	tv	tv rank
E1	x1	tv1	0
...
E10	x10	tv10	4

$r \sim U[0, 1]$

elem modded	x	tv re-mapped	tv re-ranked
E1	x1+r	tv1	z
...
E10	x10+r	tv10	k

Concatenate

$2\mu=20$

elem concat	x	tv	tv rank
E1	x1	tv1	0
...			
E10	x10	tv10	4
E1	x1+r	tv1	0
...			
E10	x10+r	tv10	4

Pareto Sorting

elem concat	x	tv	tv rank
Ei	xi	tvi	a
Ei+1	xi+1	tvi+1	b
...			
Eμ	xμ	tvμ+1	j
...			
E2μ	x2μ	tv2xμ	z

Discard

elem concat	x	tv	tv rank
Ei	xi	tvi	a
Ei+1	xi+1	tvi+1	b
...			
Eμ	xμ	tvμ+1	j

K times