

U : Current Solution
 V : New Proposed Sol'n
 Pareto Set: set of nondominated sol'ns.

Initialization:

1. Set a high simulated annealing temperature T .
2. Generate a diversified set Λ of normalized weight vectors
 $\bar{\alpha}_i = (\alpha_{i1}, \alpha_{i2}, \dots, \alpha_{ik})$ ($k = \#$ of objectives)
3. Randomly (or nonrandomly) generate an initial districting U . Evaluate all objectives, add the districting to the Pareto set, and assign a weight vector $\bar{\alpha}_i$ to U .

i : indexes the number of weight vectors

j : indexes # of obj. fn's

Has SA Freezing Temp been reached?

Yes

FINISH

No

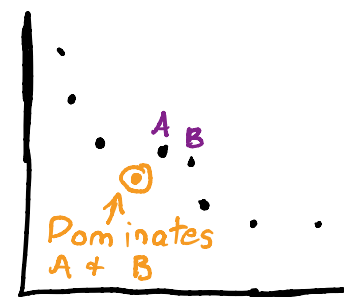
Perturb current solution U using Recomb or Flip to make a new districting V .

Is V contiguous?

No

Yes

Evaluate all objectives for V and compare V to all districtings in Pareto set.



Does V dominate at least one districting in Pareto set?

Yes

Replace one of the dominated districtings with V and let V inherit the weight vector $\bar{\alpha}_i$ for the solution it replaced.

