**Simulated data**

The zipped file, SimuData.Zip, contains 5 folders, named as “Allele”, “Dup”, “Err”, “Loci”, “Robust”.

1. Folder “Allele”: It contains 6 sets of files, named as AlleleX\_\*.dat, where X=2, 3, 5, 9, 17, 33 is the number of alleles per locus. Each set has 100 replicate data files (\*=1~100). For all X=2, 3, 5, 9, 17, 33, the total number of independent alleles across loci is fixed at 160.
2. Folder “Dup”: It contains 6 sets of files, named as LamdaX\_\*.dat, where X=0, 2, 4, 8, 16, 32. Each set has 100 replicate data files (\*=1~100). The set of files LamdaX\_\*.dat are simulated assuming a lamda value of X/10, where lamda is the parameter value in Poisson distribution assumed for simulating the number of duplications of an individual.
3. Folder “Err”: It contains 6 sets of files, named as ErrX\_\*.dat, where X=0, 1, 2, 4, 8, 16. Each set has 100 replicate data files (\*=1~100). The set of files ErrX\_\*.dat are simulated assuming a rate of X/100 for missing data, allelic dropouts and other types of errors at each locus.
4. Folder “Loci”: It contains 5 sets of files, named as LociX\_\*.dat, where X=5, 10, 20, 40, 80. Each set has 100 replicate data files (\*=1~100). The set of files LociX\_\*.dat are simulated using a number of X loci, each having 10 alleles in a uniform frequency distribution.
5. Folder “Robust”: It contains 11 sets of files, named as RobustX\_\*.dat, where X=0~20 in step 2. Each set has 100 replicate data files (\*=1~100). The set of files RobustX\_\*.dat are simulated with a type II error rate 0.05 but an assumed/estimated rate of X/100.