Workflow of use of Response surface assisted method for utilization of datasets with each parameter measured using multiple independent features

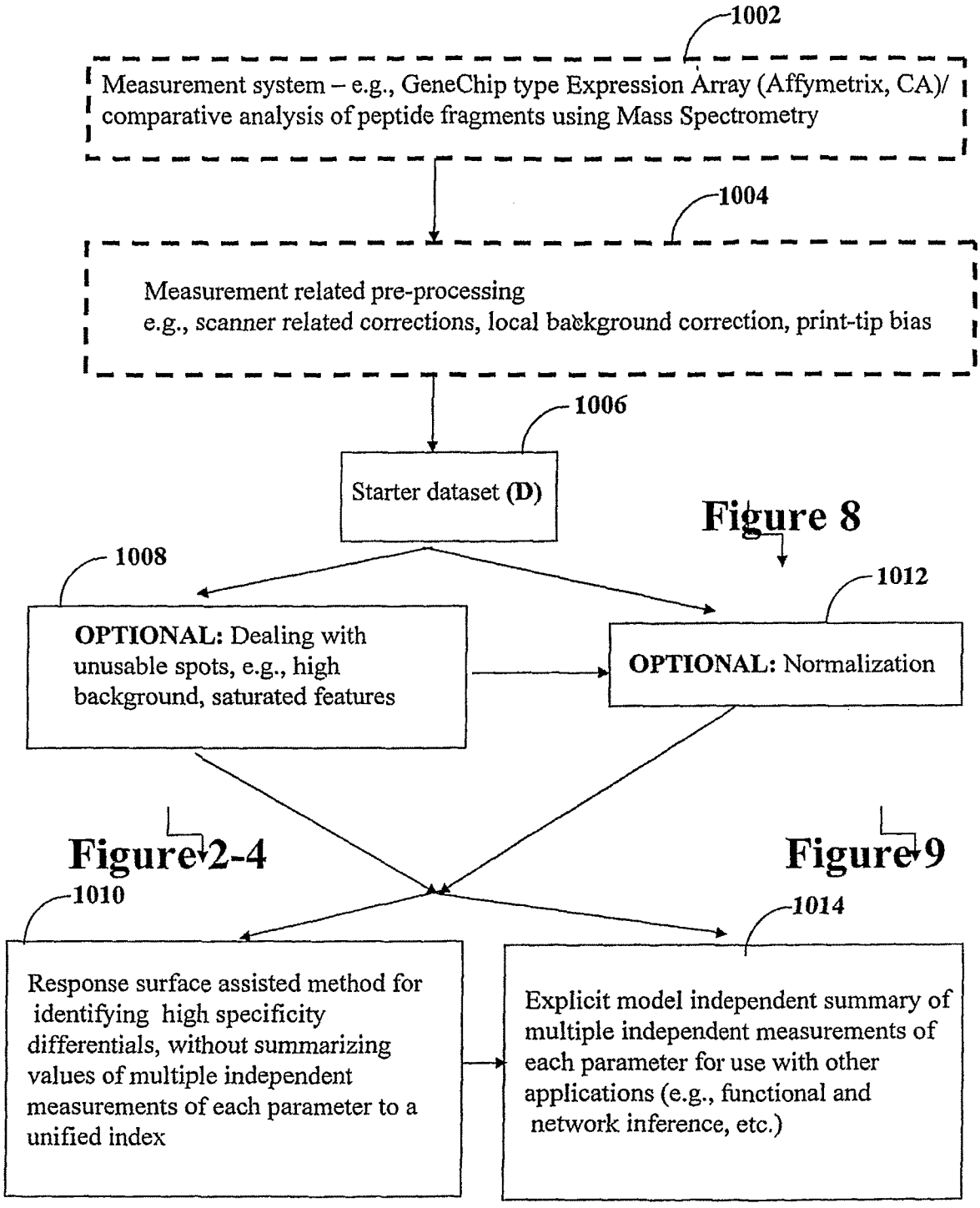


Figure 1

Optimum response surface criteria for identifying differentials - outline

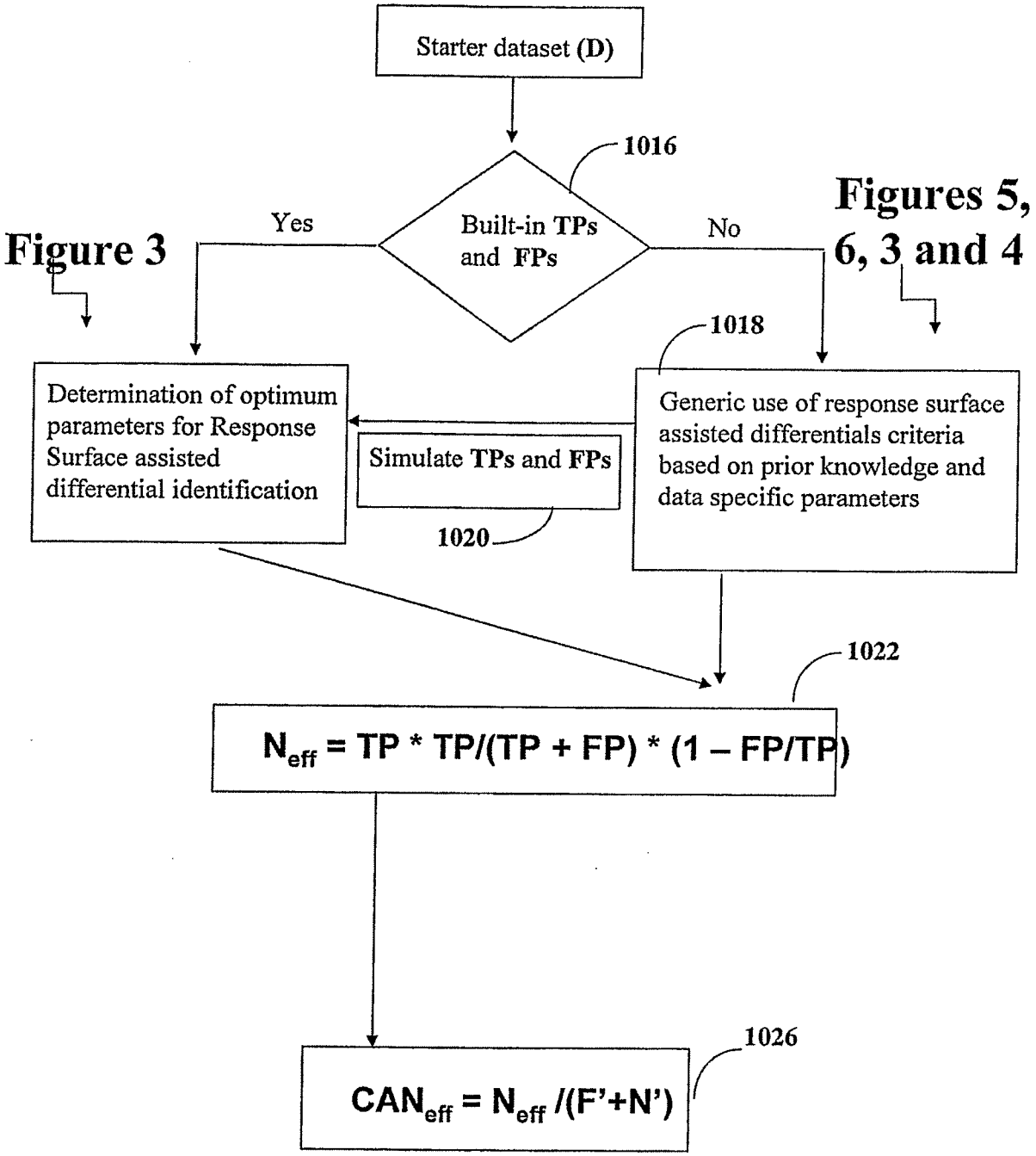


Figure 2b

Optimum response surface criteria for identifying differentials - outline

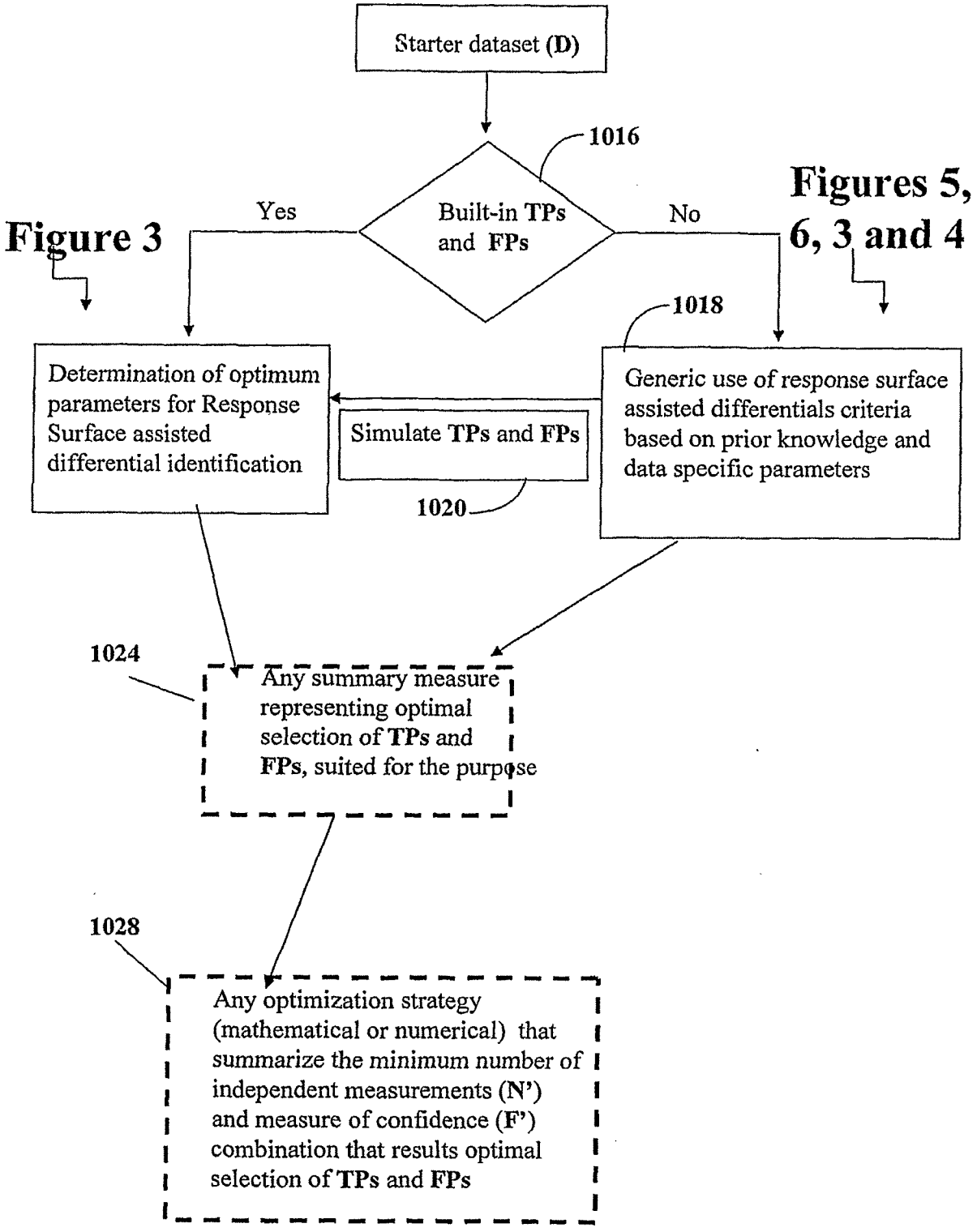


Figure 2a

Response surface criteria for identifying differentials and parameter optimization - 1

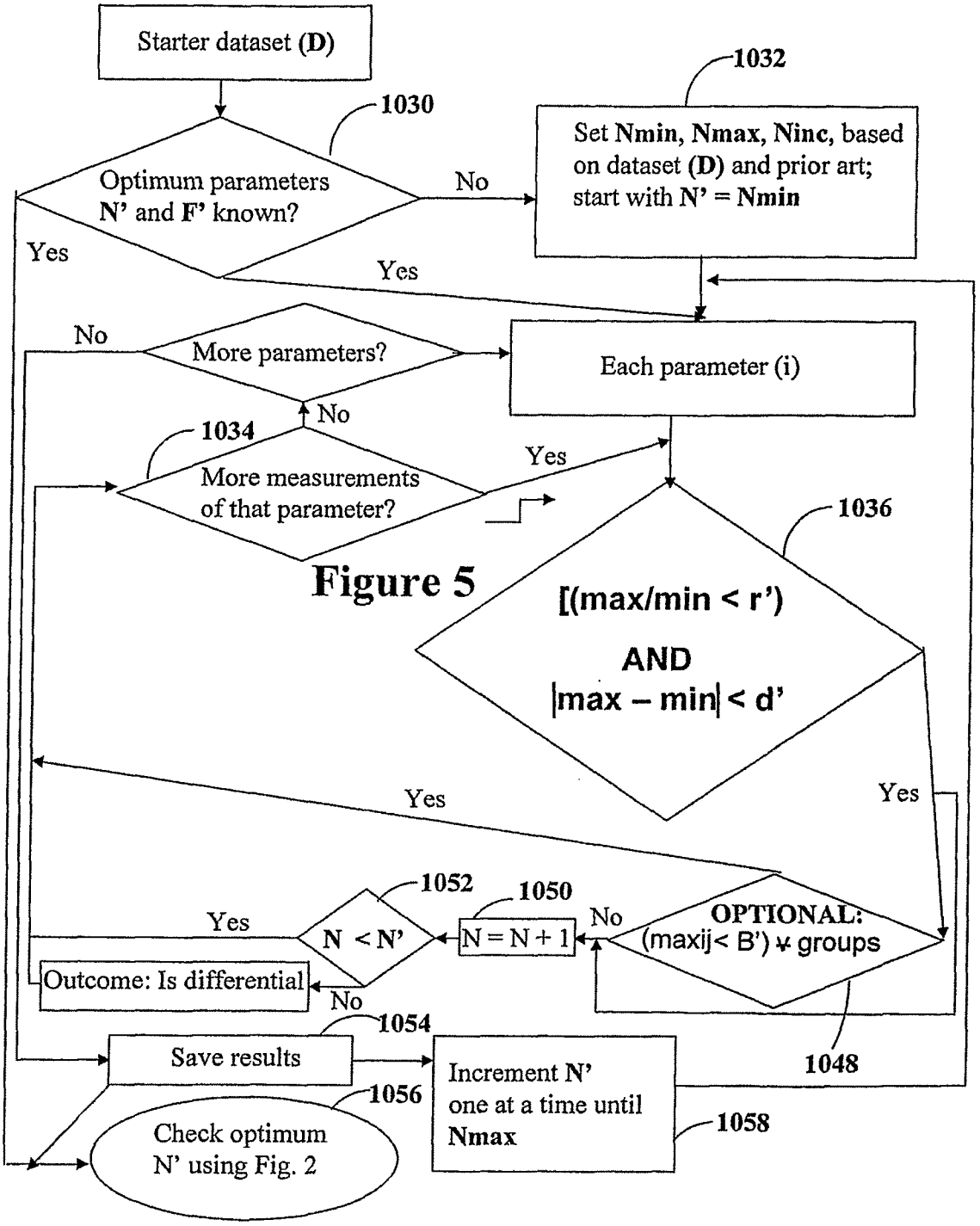


Figure 5

Figure 3a

Response surface criteria for identifying differentials and parameter optimization - 2

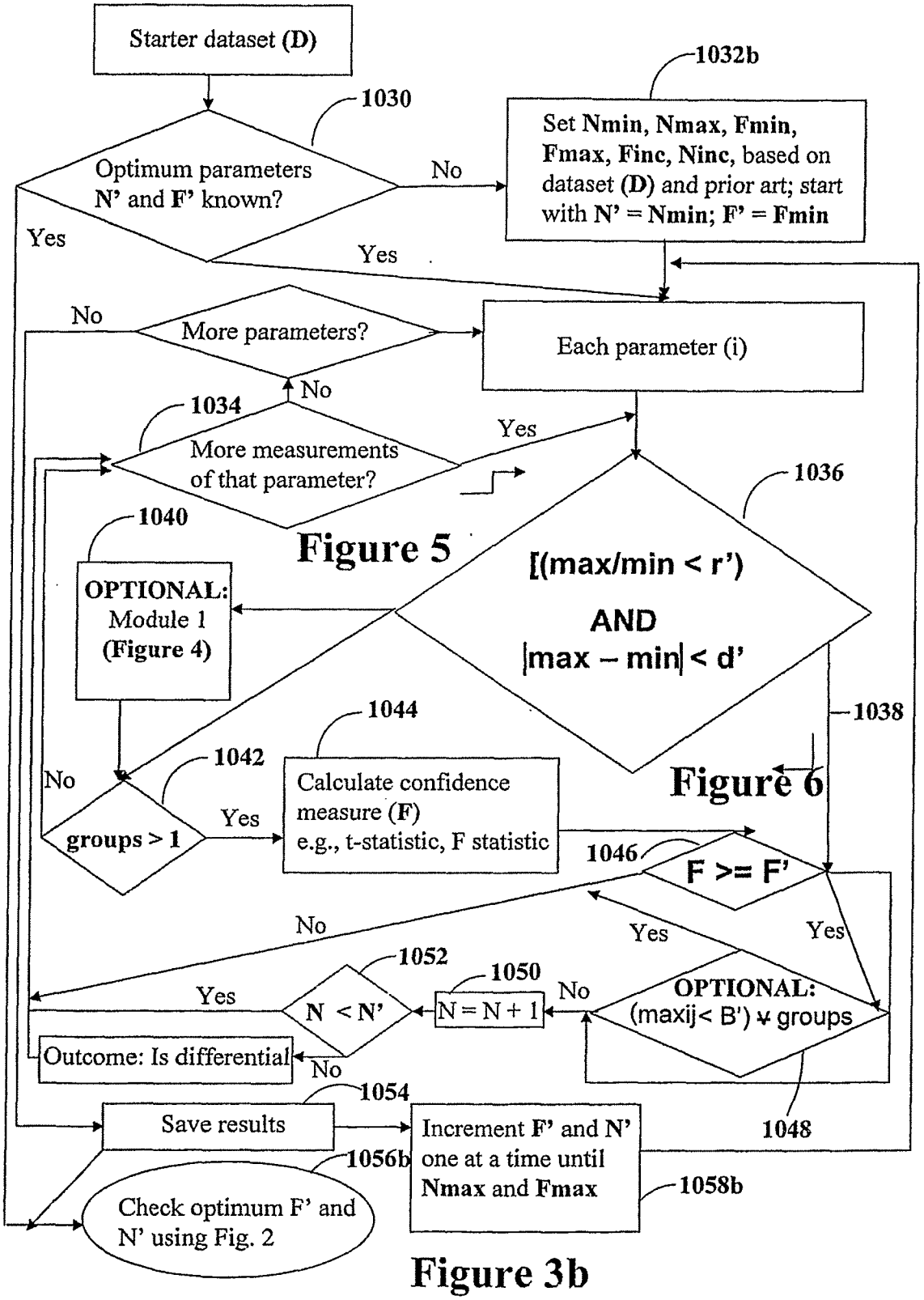


Figure 5

Figure 6

Figure 3b

Module1 for Response surface criteria for identifying differentials and parameter optimization (Figure 3)

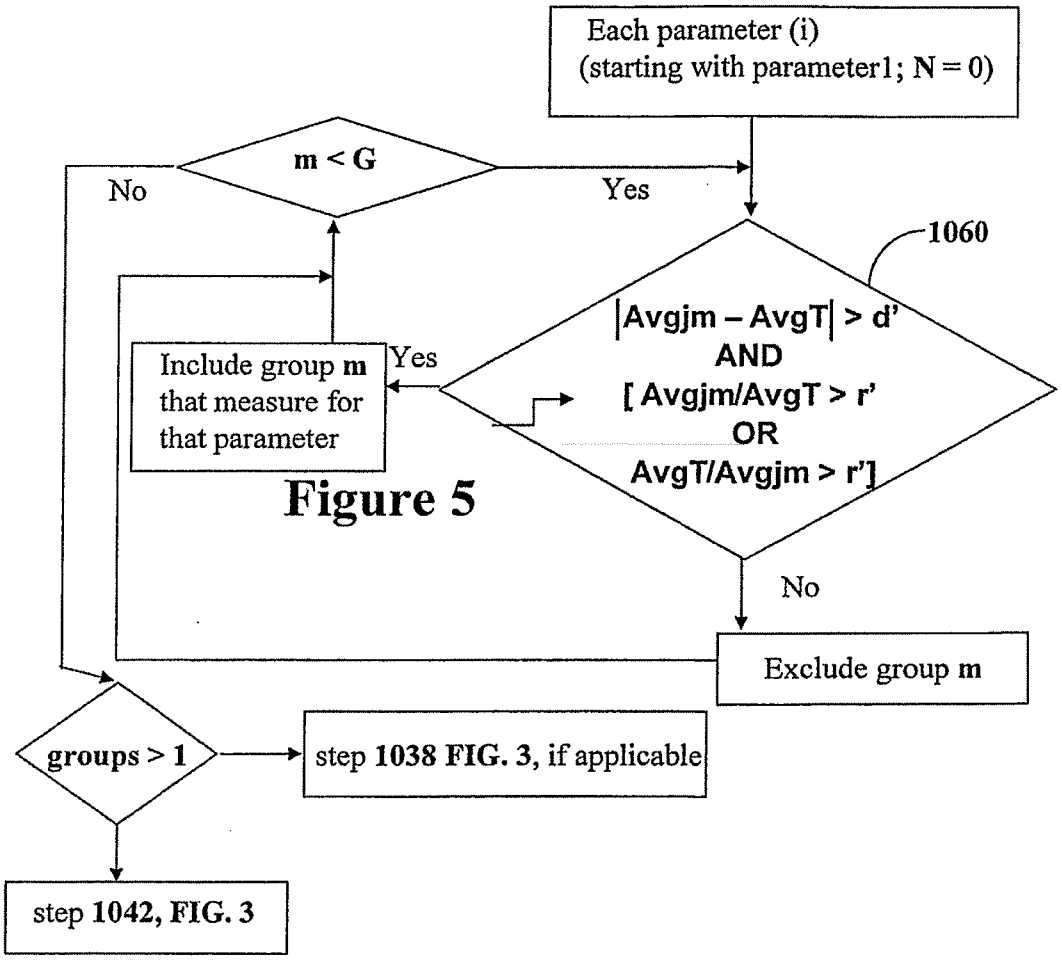


Figure 5

Figure 4

Estimation of within-replicate data-specific threshold (DAST) of distance (DASTd') and ratio(DASTr') in noise range

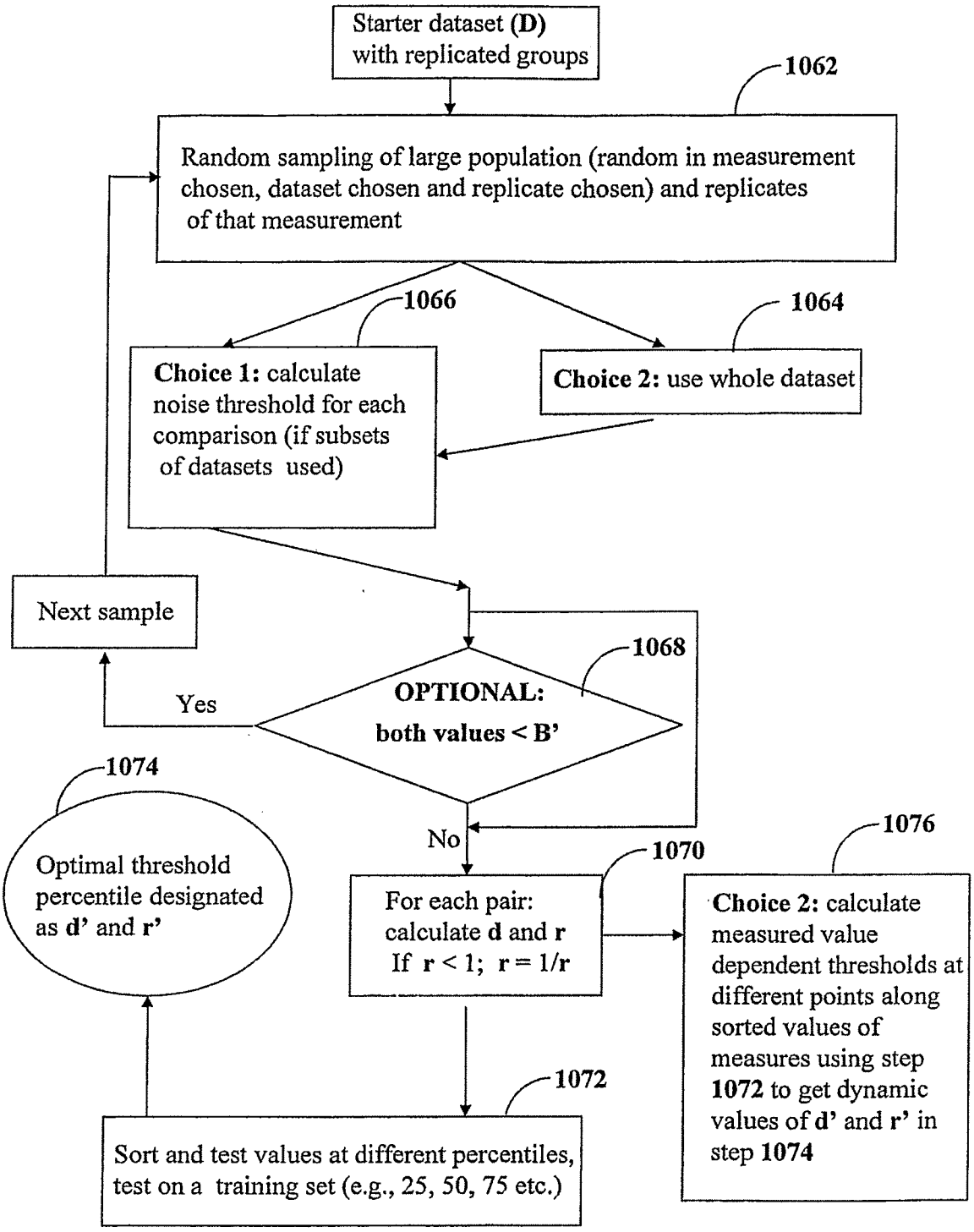


Figure 5

Estimation of within-replicate data-specific statistical threshold (DASTF') in noise range – part 1

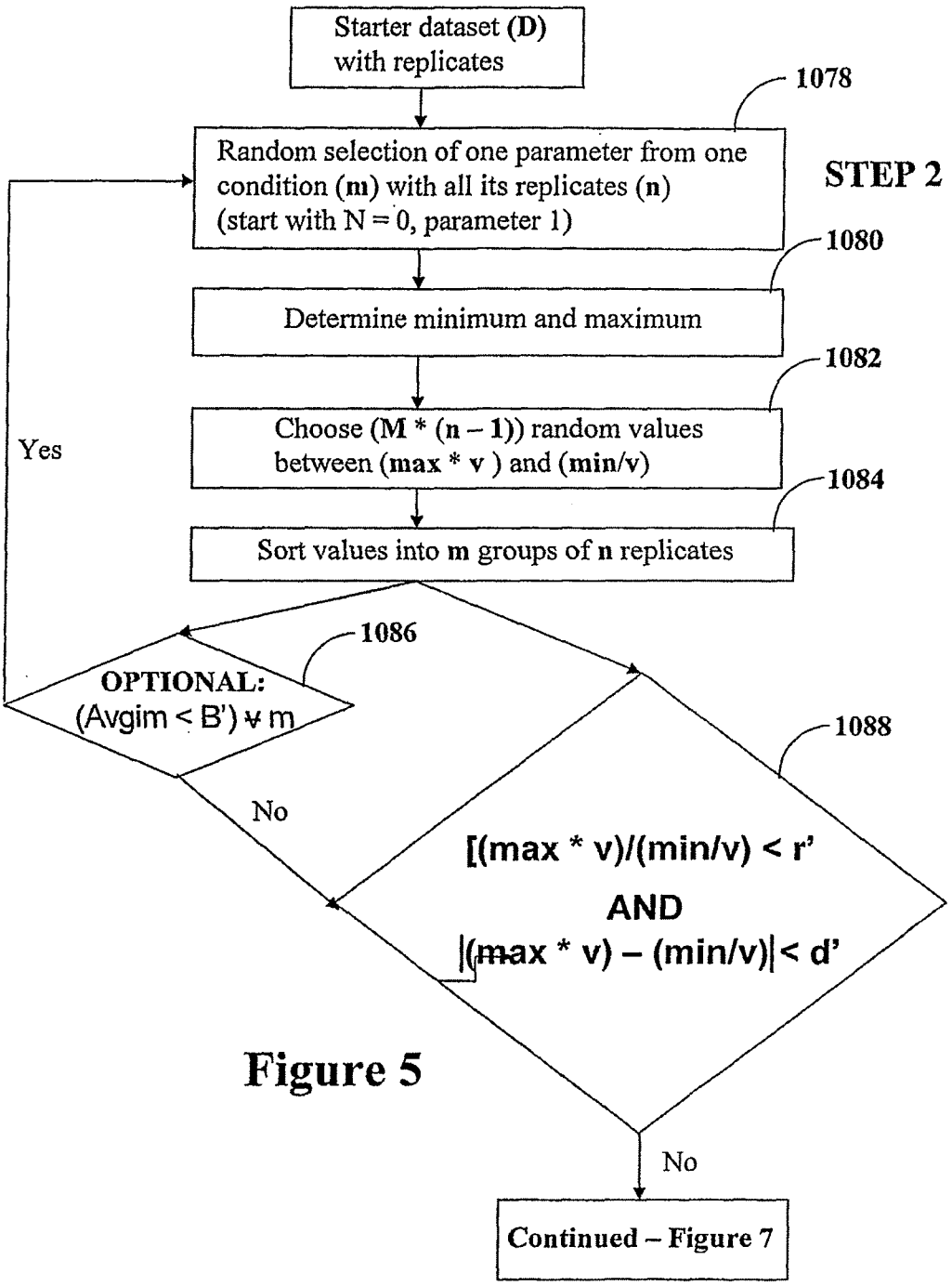


Figure 5

Figure 6

Estimation of within-replicate data-specific statistical threshold (DASTF') in noise range – part 2

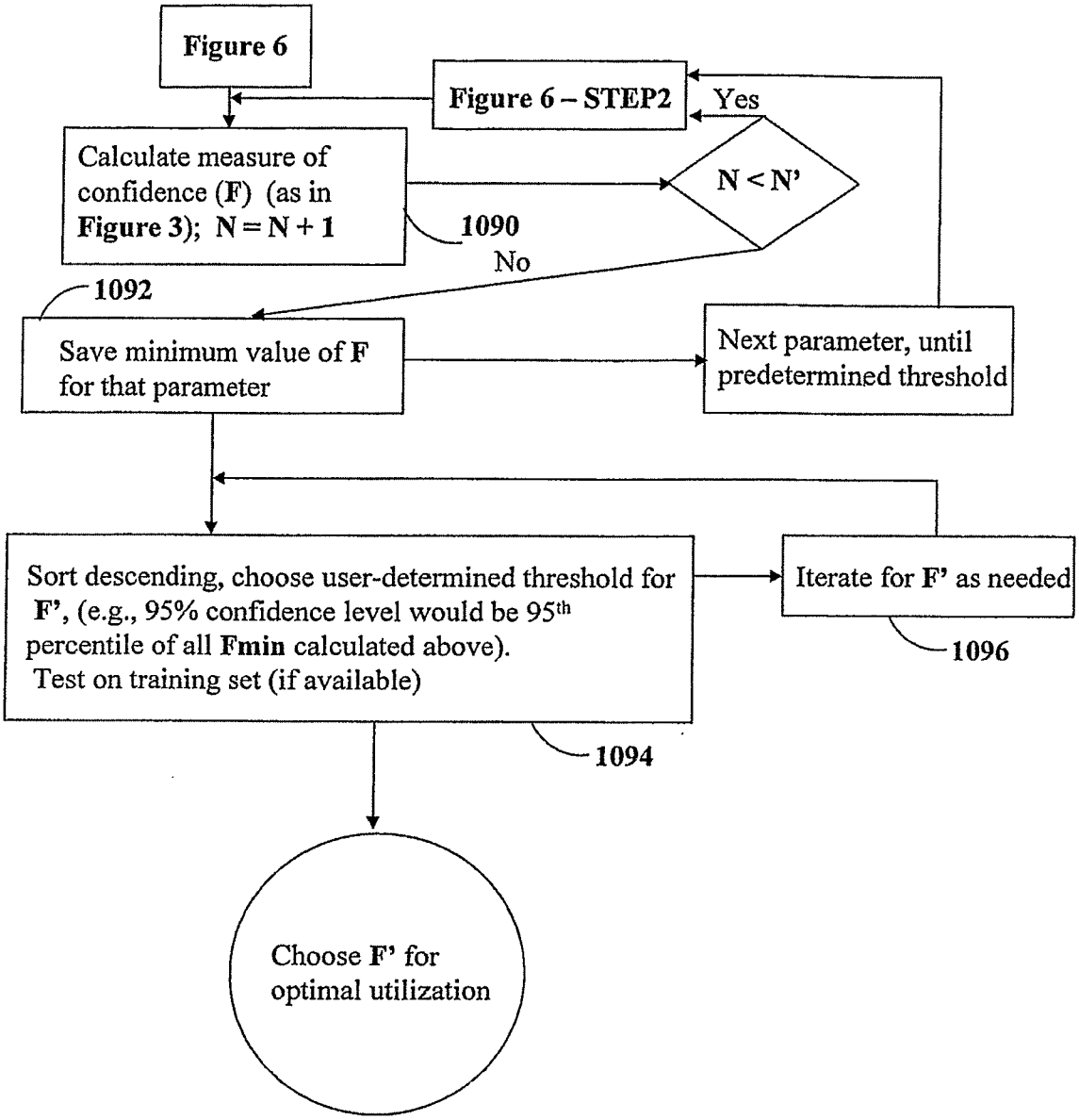


Figure 7

Explicit model independent estimation of expression (EMINE) value when parameter measured my multiple independent measurements

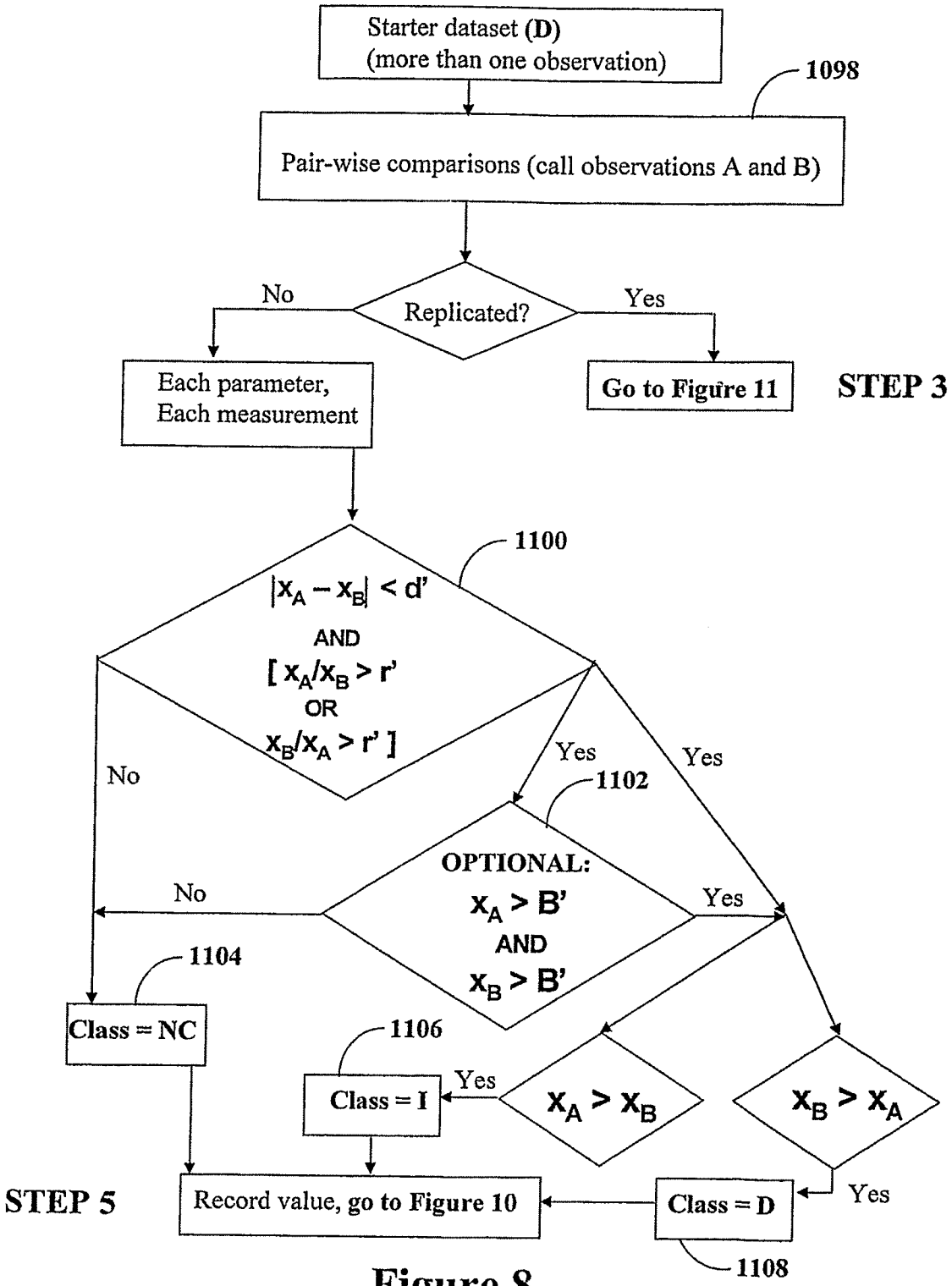


Figure 8

Explicit model independent estimation of expression (EMINE) – part 2

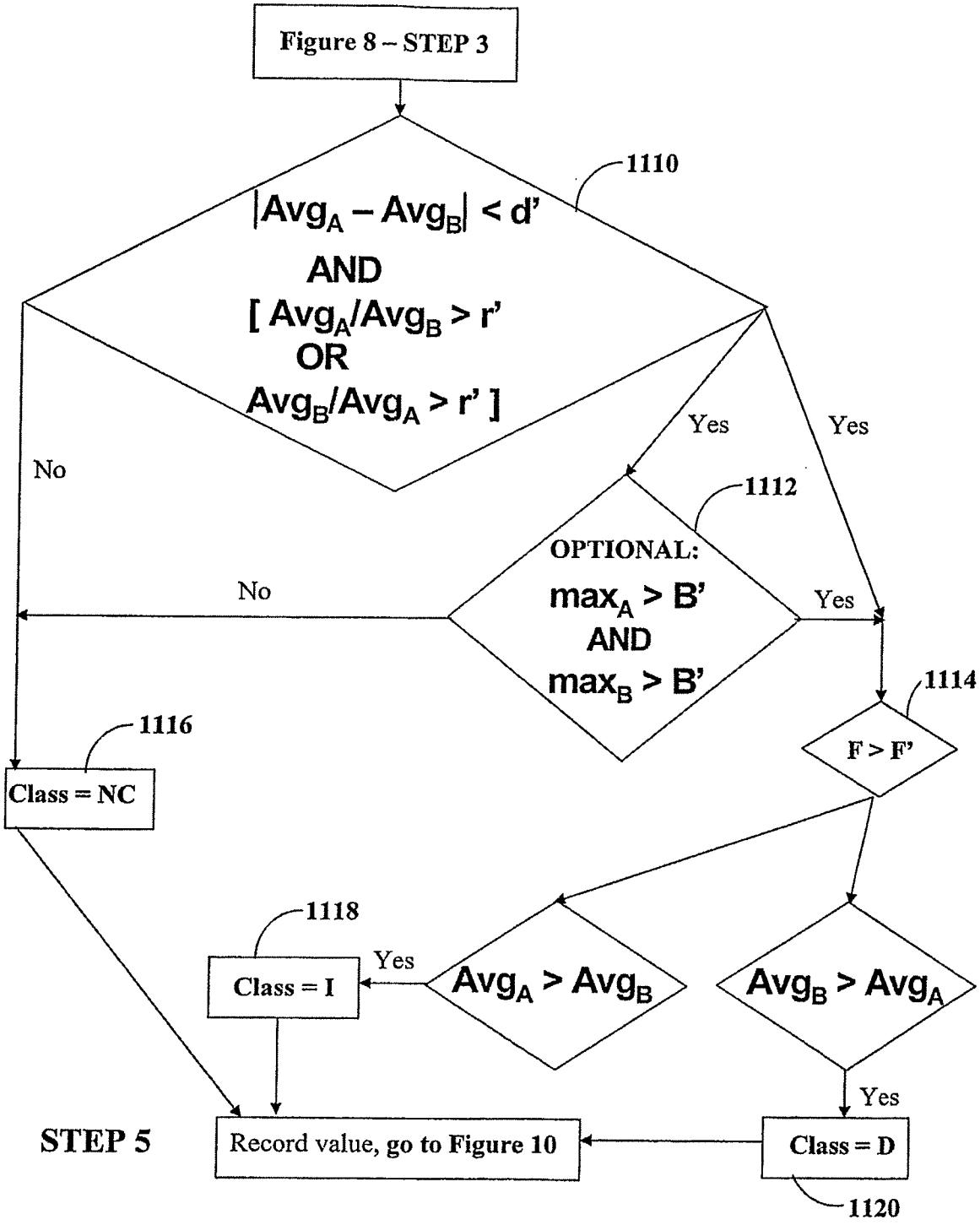


Figure 9

Explicit model independent estimation of expression (EMINE) – part 3

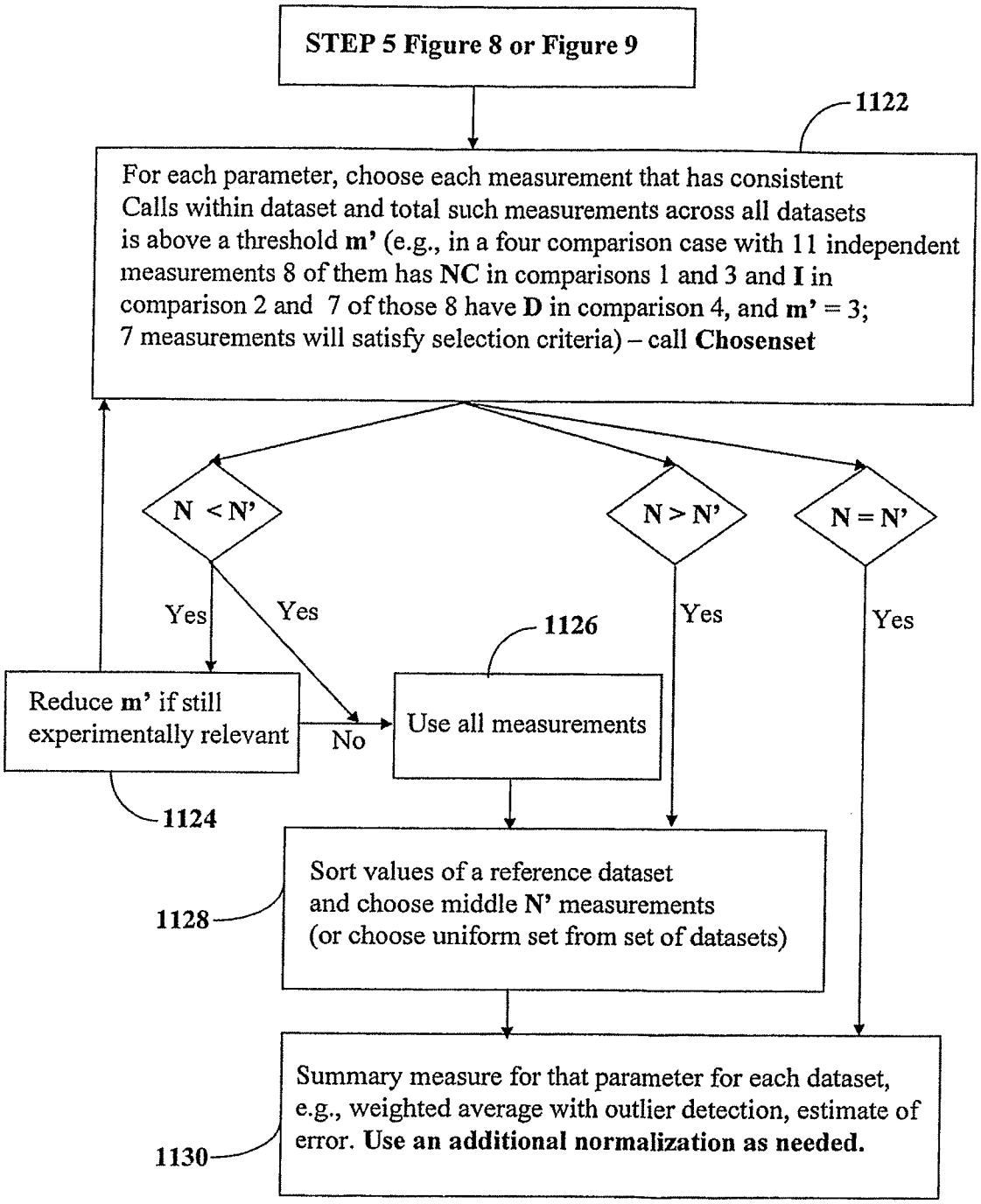


Figure 10

Estimating fold change for differentials

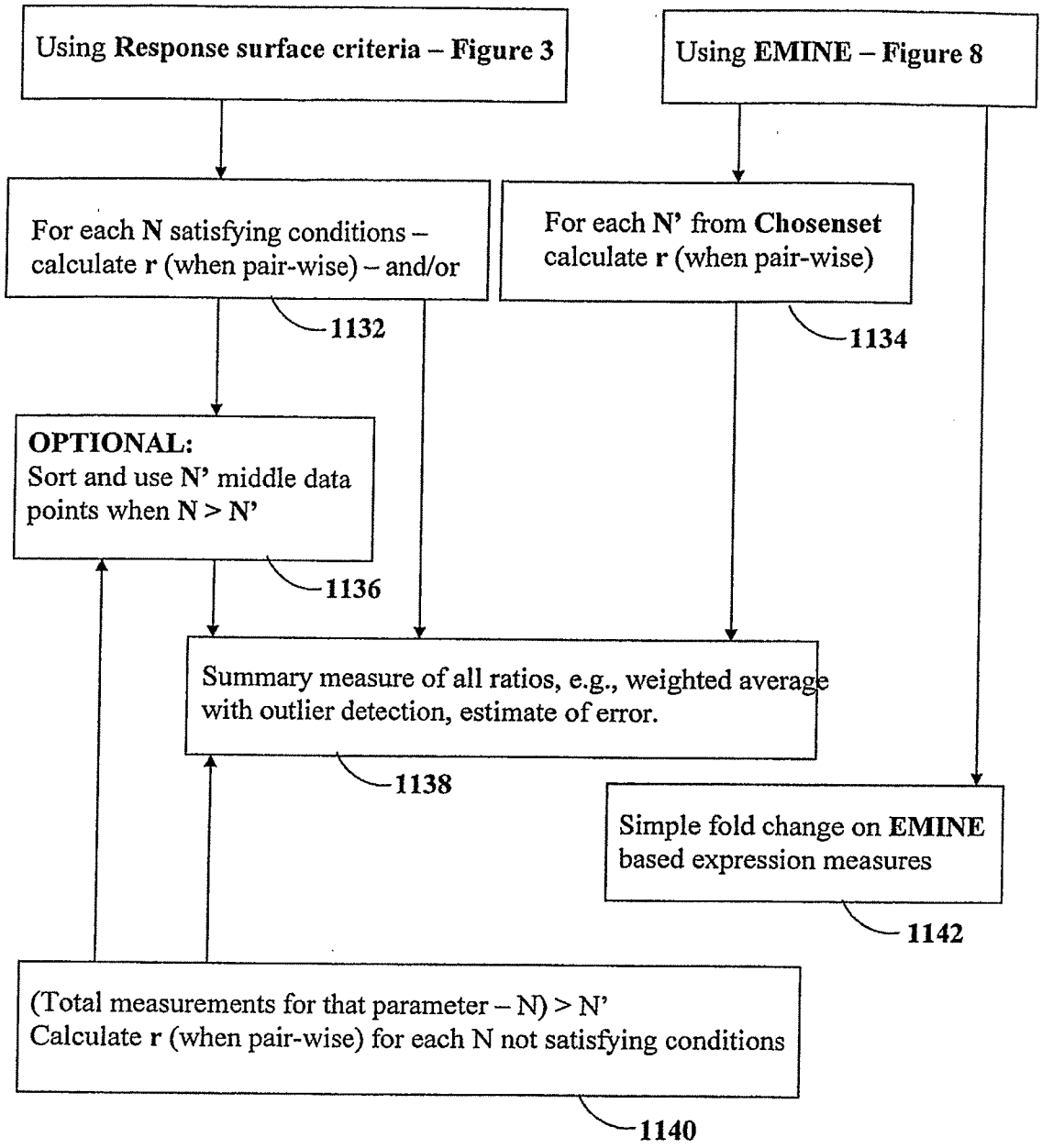


Figure 11

Confidence estimates of change for differentials

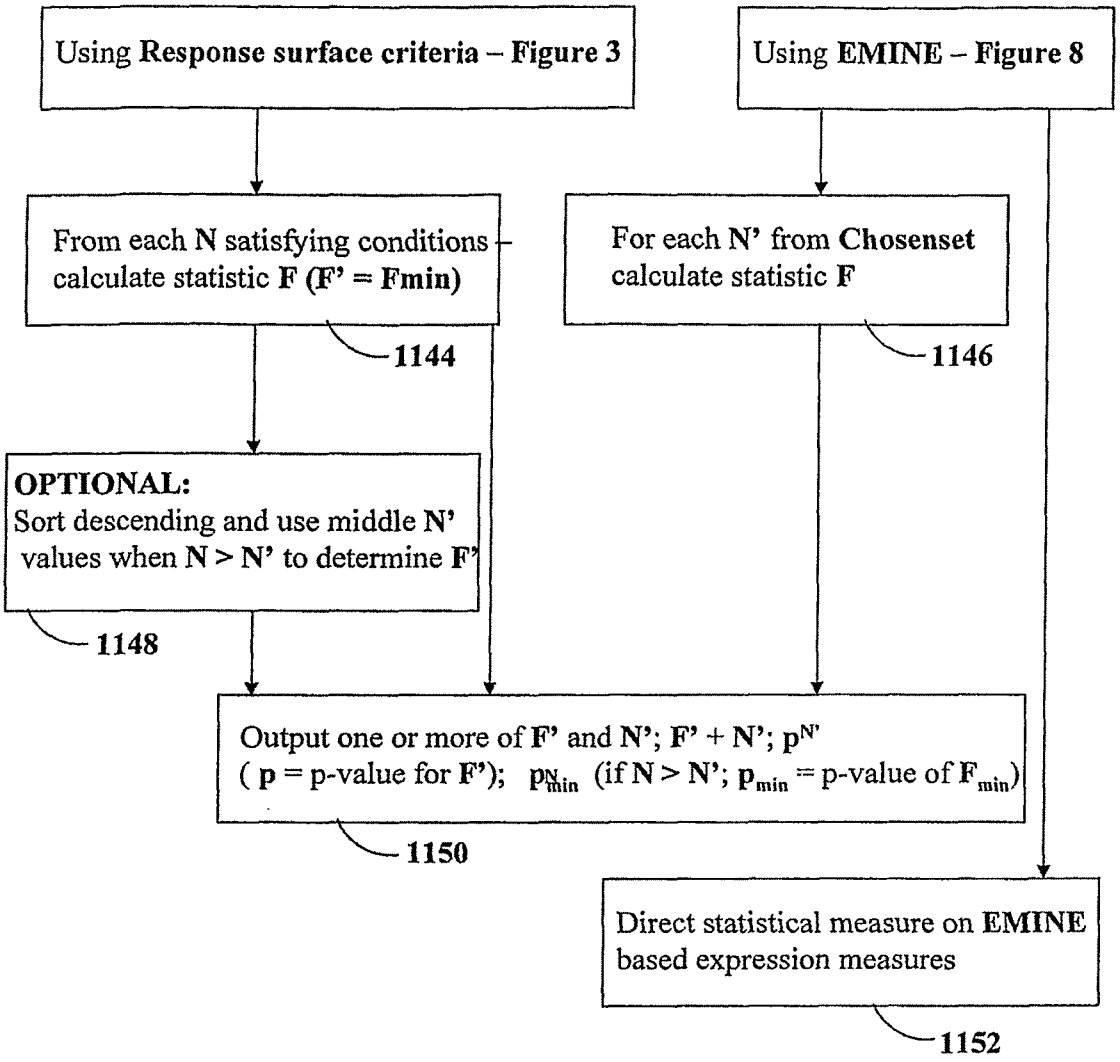


Figure 12

A data-scaling approach (SCALEIT) to test efficacy of scheme used to identify differentials between datasets

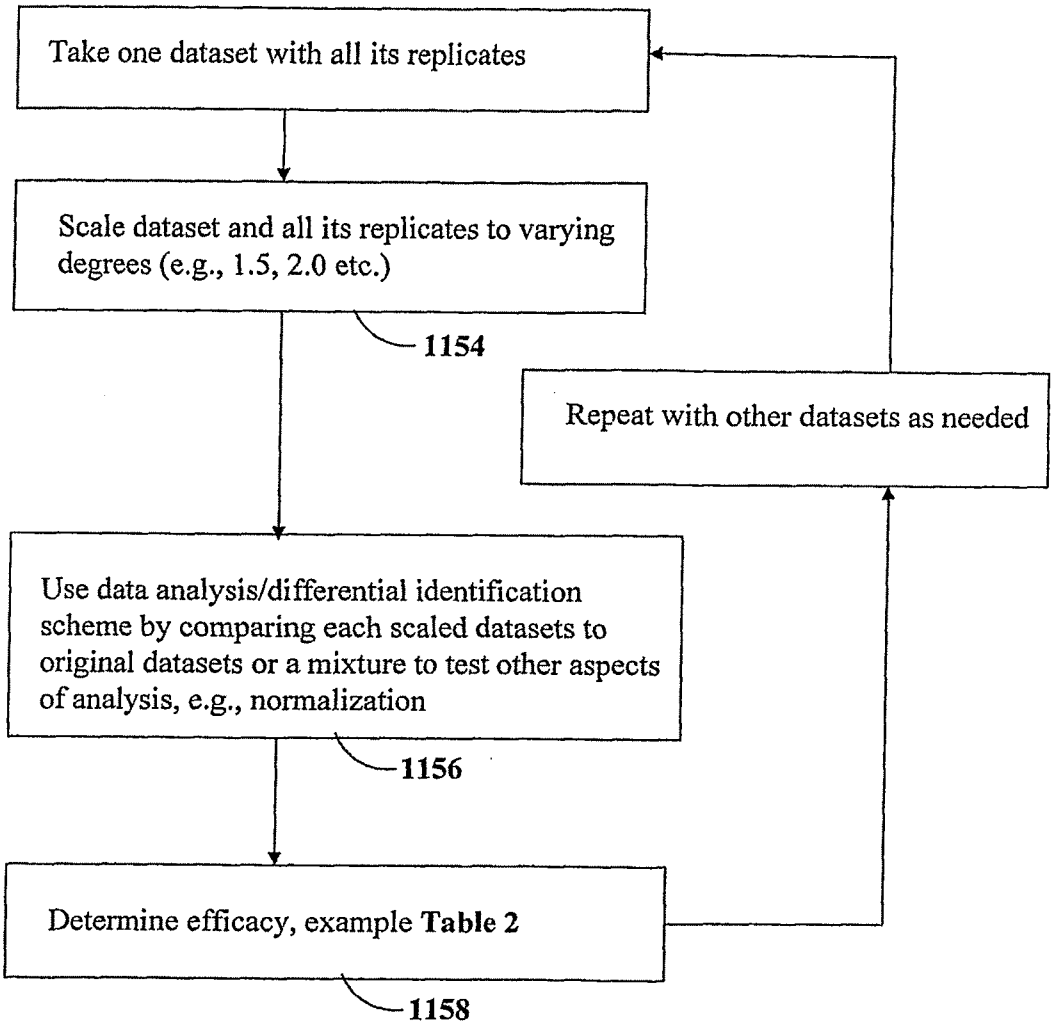


Figure 13

Biological invariance motivated normalization (BINorm)

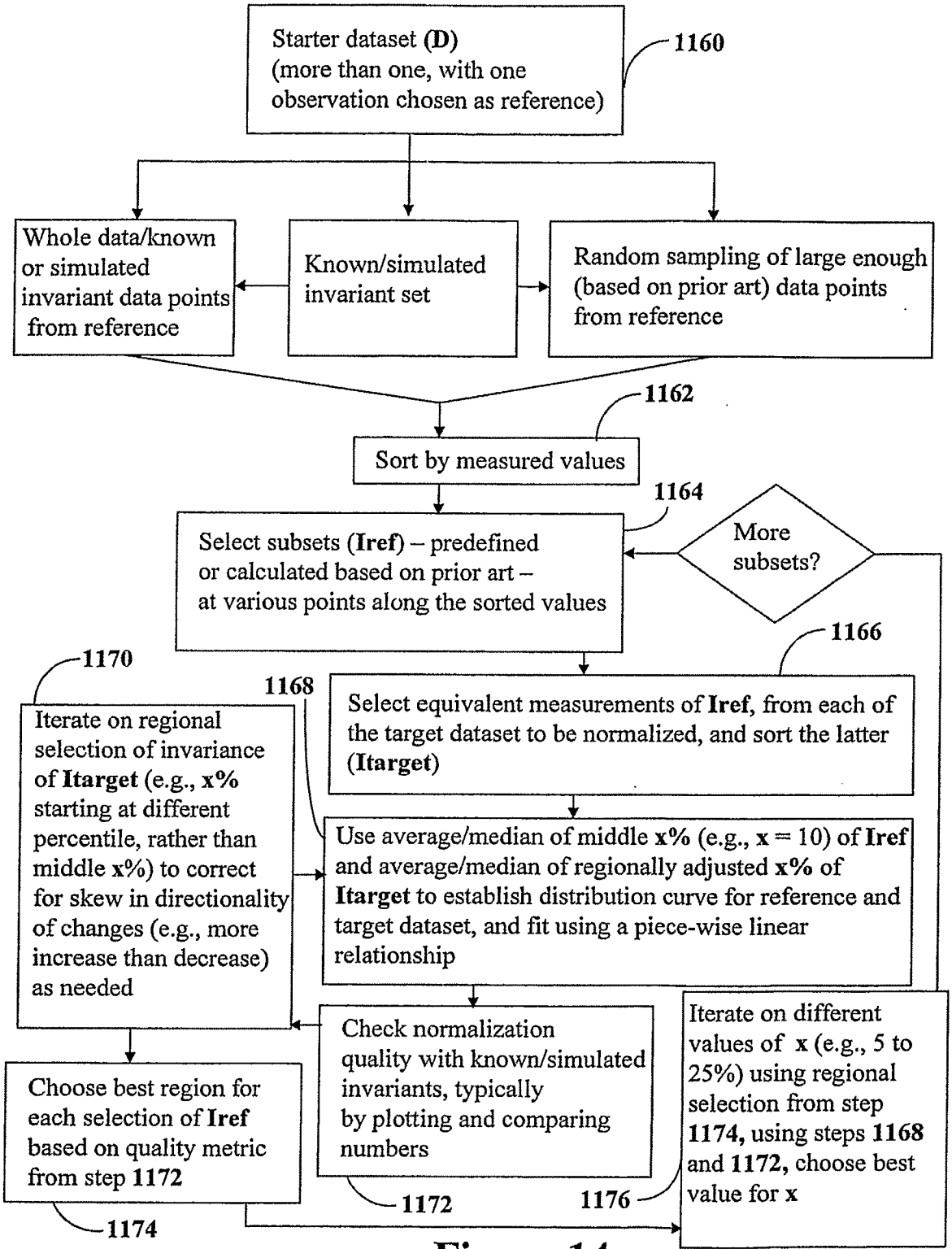


Figure 14

Schema for a computer program and software integrated With a database and interfaced with other processing systems

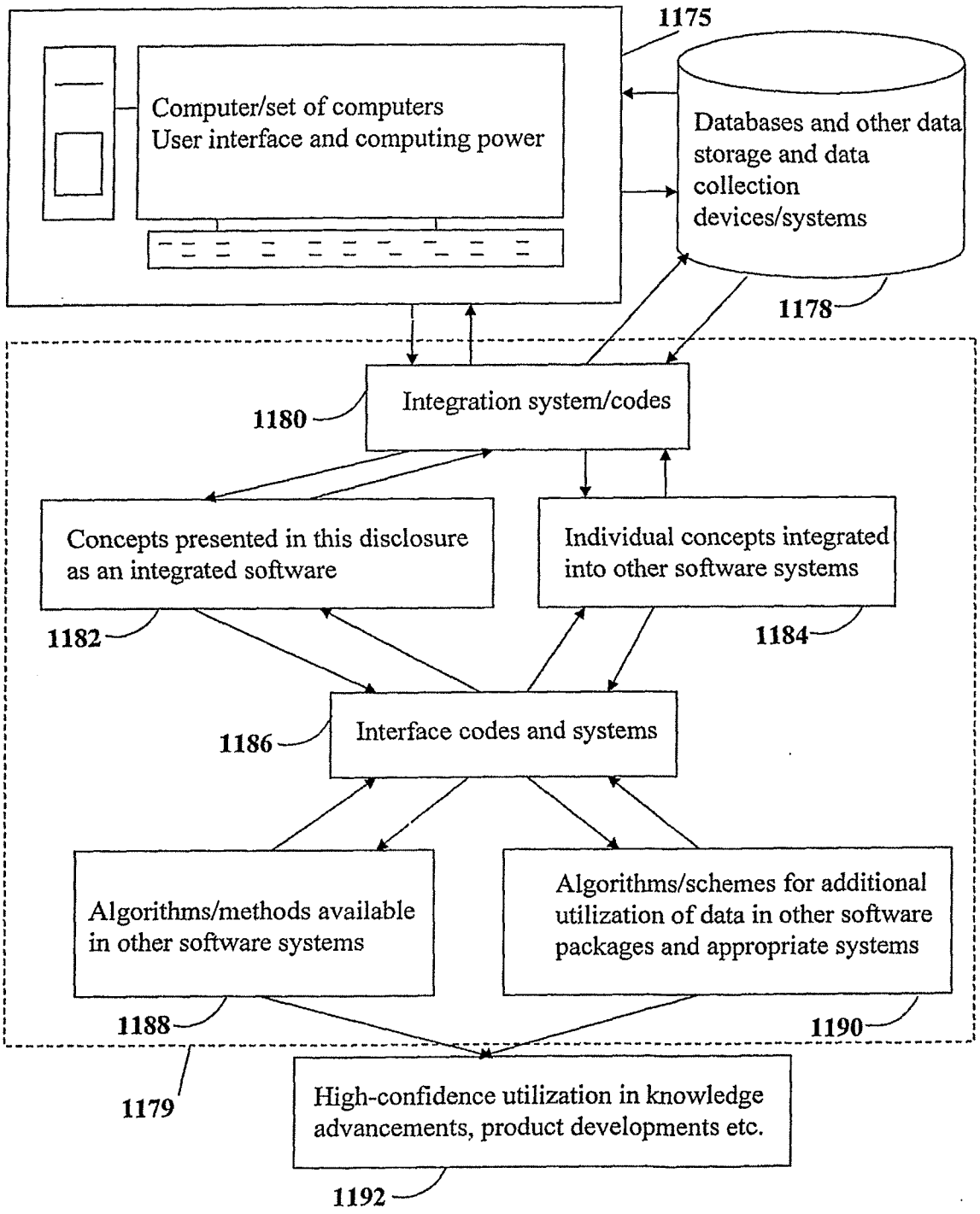


Figure 15

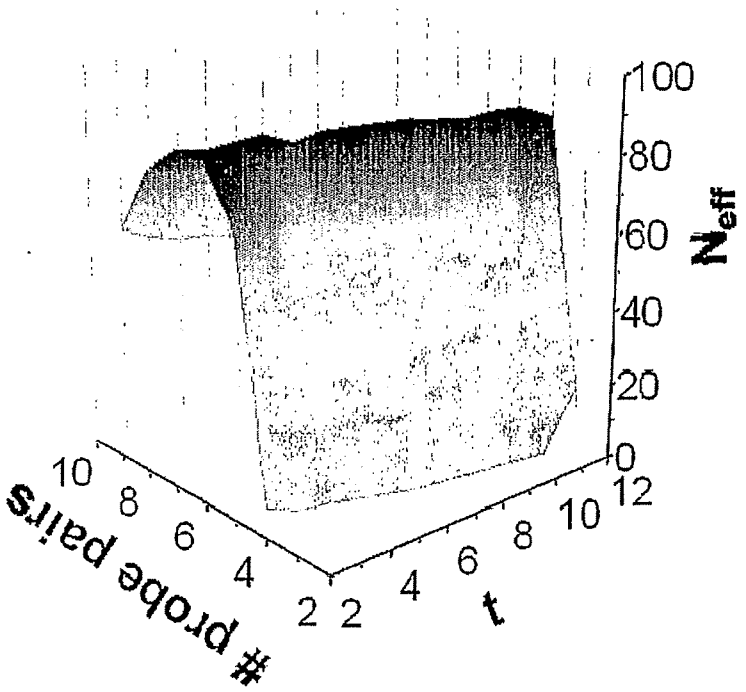


Figure 16

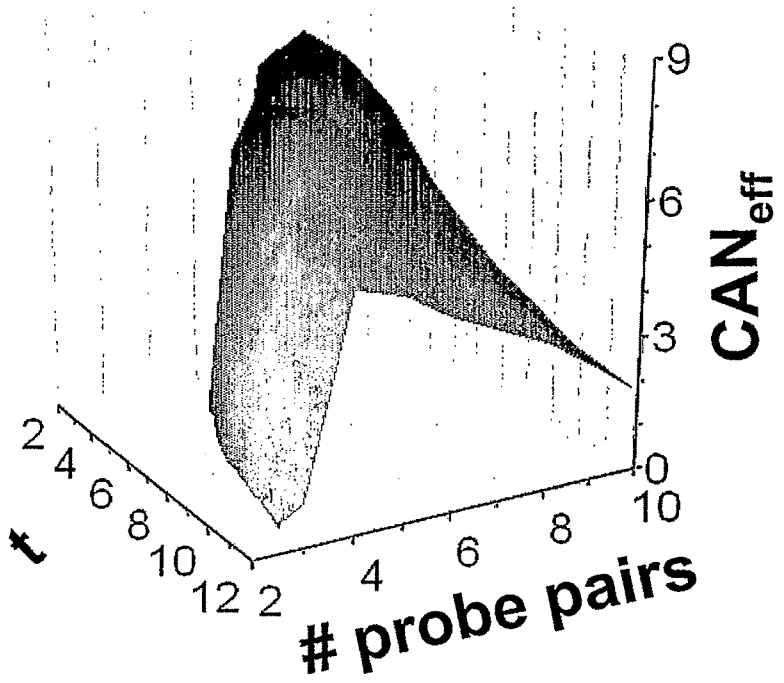
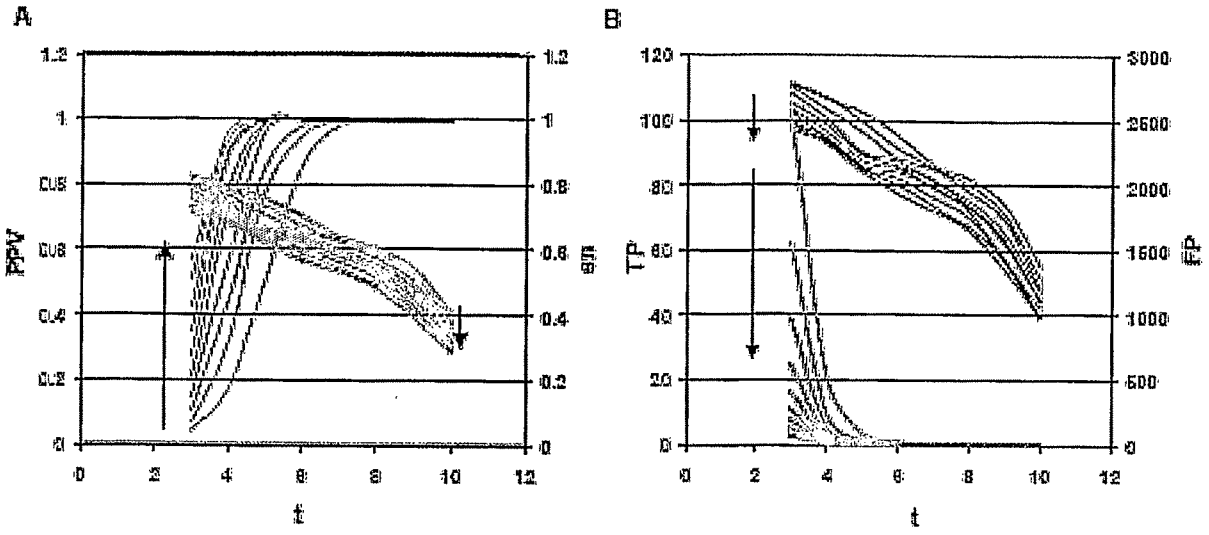


Figure 17



Figures 18A, 18B

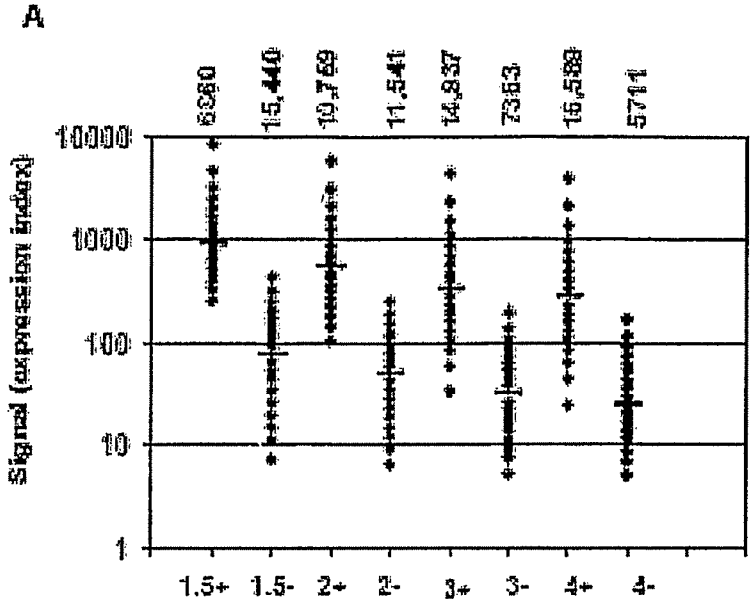

A
6260
15,440
19,769
11,541
14,837
7363
16,588
5711
10000
1000
100
10
1
Signal (expression index)
1.5+
1.5-
2+
2-
3+
3-
4+
4-

Figure 19