

ANonconformity
scores matrix N_{tr}
rows

Training set

A**B**0.03
0.23
0.29
0.38
0.78
0.91
0.980.01
0.10
0.33
0.37
0.45
0.67
0.87 N_{tr} -by-classes matrixMondrian
class lists**B**Classification probabilities across
the RF trees for $x_{ext j}$: $p(A): 0.2$; $p(B): 0.8$ How many elements in the corresponding Mondrian
class list are smaller than $p(A)$ and $p(B)$? :

1/7 for A, and 6/7 for B

The p.values are thus:

 $p.value(A): 3/7 = 0.14$; $p.value(B): 6/7 = 0.86$ Are these values higher than the
significance level, $1 - \epsilon = 0.2$?**A: No** ($0.14 < 0.20$): $x_{ext j}$ is not
predicted to belong to
class A for that
confidence level (0.8)**B: Yes** ($0.86 > 0.20$): $x_{ext j}$ is
predicted to belong to
class B for that
confidence level (0.8)