Test Class

○ LSAerodynamicsManager.CalcCDAtAlpha theCDWingCalculator
= theLSAnalysis.new CalcCDAtAlpha();

○ double cDIsolatedWing = theCDWingCalculator
.integralFromCdAirfoil(
alphaWing, MethodEnum.NASA_BLACKWELL, theLSAnalysis);

LSAerodynamicManager

CalcCDAtAlpha

This class calculates the drag coefficient of a winh
having angle of attack as input.
The method of this class calls an object of CalcCDDistribution
in order to evaluate the distribution of drag coefficient along
the semspan.

CalcCdDistribution

This class calculates the drag coefficient distribution
along the semispan generating an intermedate airfoil
for 50 stations and calculating the CD for each of them
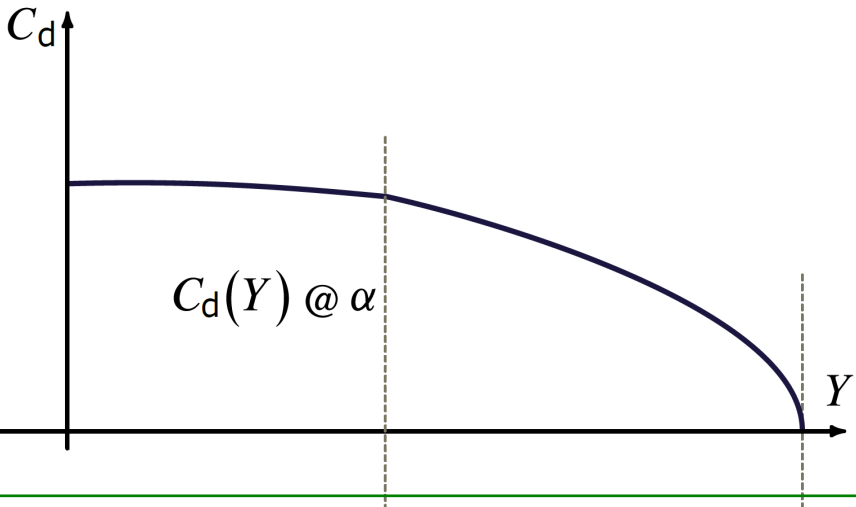starting from the CL calculated with NasaBlackwell or
Schrenk method.

CalculateCd

This class calculates the drag coefficient at y station starting
from Cl local calculated before.

CalcLiftDistribution

Output

CD at alpha

$$CD = CD_{min} + (CL - CL_{CD_{min}})^2 + k$$