Program Name: **fstretch**

Language: SAS

Objective: Determining the critical constants and the power against $\sigma^2/\tau^2 = 1$ of the UMPI test for dispersion equivalence of two Gaussian distributions

Input:

ALPHA	significance level
TOL	tolerance for the numerical approximation error
ITMAX	maximum number of interval-halving steps
NY1	number of degrees of freedom for the numerator
NY2	" " " " " " " " " " denominator
RHO1	lower limit of the equivalence range for σ^2/τ^2
RHO2	upper " " " " " " " " " " " "

Output:

ALPHA	value read from input file
NY1	" " " " " " "
NY2	" " " " " " "
RHO1	" " " " " " "
RHO2	" " " " " " "
IT	number of interval-halving steps carried out
C1	left-hand limit of the optimal critical interval
C2	right-hand " " " " " " " " " " " " "
ERR	maximum difference between the rejection probability at the boundaries of the equivalence range and the target significance level ALPHA [= . <=> difference is computed to be smaller in absolute value than the smallest positive real number admitting a representation as a numeric constant in SAS]
POW0	power against the alternative $\sigma^2/\tau^2 = 1$