Model Performance

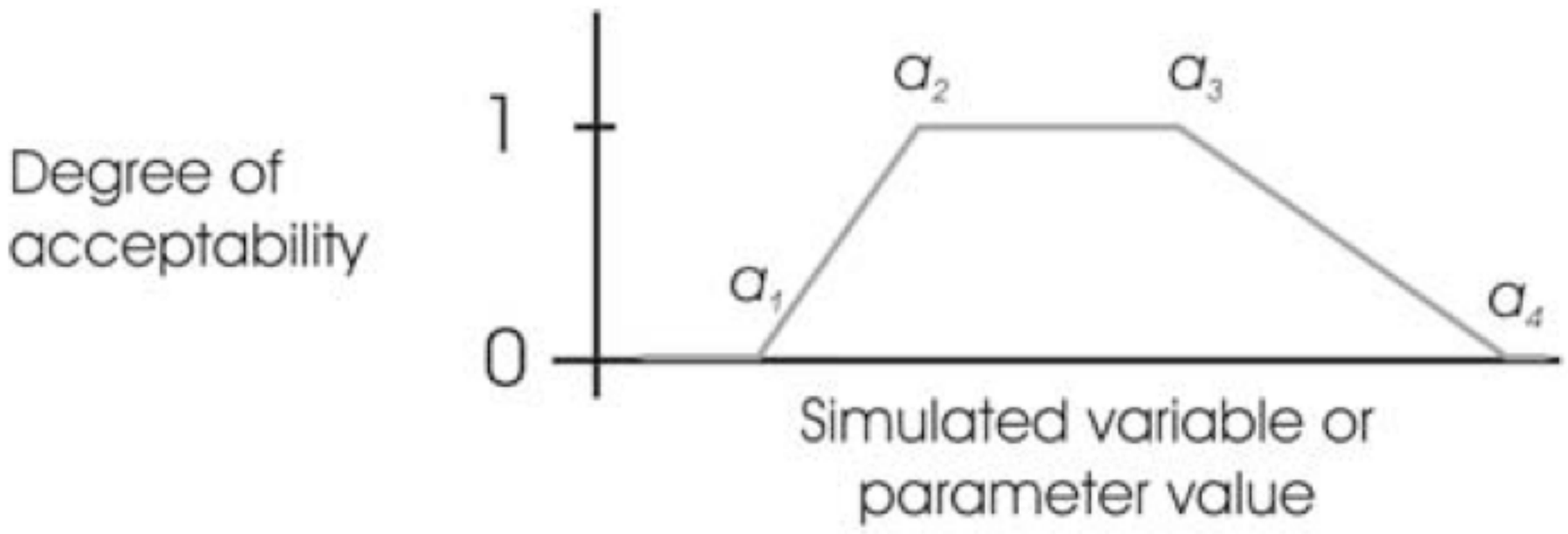
```
#' relerr
#'
#' Compute percent error between observation and model
#' @param  m  model estimates
#' @param  o  observations
#' @return relerr


relerr = function(m,o) {

err = m-o
meanobs = mean(o)
meanerr = mean(err)

res = meanerr/meanobs
return(res)
}
```

Soft metrics - Fuzzy-Evaluation



$$\mu(x) = \begin{cases} 0 & if\ x \le a_1 \\ \frac{x - a_1}{a_2 - a_1} & if\ a_1 \le x < a_2 \\ 1 & if\ a_2 \le x < a_3 \\ \frac{a_4 - x}{a_4 - a_3} & if\ a_3 \le x < a_4 \\ 0 & if\ x > a_4 \end{cases}$$

For data where there is a lot of uncertainty in observed values (imprecise measurements)

Seibert, J., and J. J. McDonnell, On the dialog between experimentalist and modeler in catchment hydrology: Use of soft data for multicriteria model calibration, Water Resour. Res., 38(11), 1241, doi:10.1029/2001WR000978, 2002.