Heleno's Contributions in Asymmetric Models

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ABSTRACT

Normality (symmetric) of the random errors is a routine assumption in regression model, but it may be unrealistic, obscuring important features of the subject's variation. We relax this assumption by considering that the random errors follow a skew-normal (and its extensions) distribution, which includes normality as a special case and provides flexibility in capturing a broad range of non-normal behavior. Aiming Heleno's contribution to the skew-world, several useful regression models will be discussed, such as the asymmetric linear mixed model, the skew-probit link for binary regression, finite mixtures with asymmetric components, among others.