

# Residual diagnostics in ordinal regression models

*A seminar by Maria Iannario*  
*Department of Political Sciences*  
*University of Naples Federico II*

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**Live Zoom**

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Residual diagnostics – although widely used in linear and binary regression models – is not well developed for models with an ordinal outcome. Some contributions suggest a progressive dichotomization of the response according to the ordinal structure of the data and the implementation of residual strategies developed for binary data models; others introduce the use of a surrogate continuous variable for the ordinal response obtaining the surrogate residuals. Both the approaches are useful in the investigation of the assumption of proportionality as well as for examination of unusual or extreme values. A further approach focused on the latter aspect has been recently introduced.

The identification of statistical units incoherent with the model is achieved by the analysis of generalized residuals produced by maximum likelihood or M estimation. The various diagnostic procedures are illustrated and evaluated on real data sets.

*References:*

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