

## PANEL COMMUNICATION (MATHEMATICS AND MEDICINE)

**Misconceptions of the magnitude of standardized coefficients  
in regression analysis**JORGE CABRAL<sup>a</sup>, VERA AFREIXO<sup>a</sup>, PEDRO MACEDO<sup>a</sup><sup>a</sup> Institution: Center for Research and Development in Mathematics and Applications (CIDMA), University of Aveiro, Aveiro, PortugalE-mail: [jorgecabral@ua.pt](mailto:jorgecabral@ua.pt), [vera@ua.pt](mailto:vera@ua.pt), [pmacedo@ua.pt](mailto:pmacedo@ua.pt)**Abstract**

One of the most widely used data analysis techniques is univariate multiple linear regression. Standardization of the variables is sometimes applied in order to establish the relative importance of different independent variables. However, their use remains controversial, in particular in the presence of collinearity [1]. The reporting of collinearity diagnostic and assumption checking in health and social science research articles is rarely performed and standardized coefficients are often solely reported [2]. Furthermore, the idea that standardized coefficients are numerically bounded by  $\pm 1$  is still considered conventional wisdom [3] and is wrongly diffused. Both analytically and computationally, we aim to create awareness in the use and interpretation of the magnitude of standardized linear regression coefficients especially when the assessment of collinearity is not available.

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**References**

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