Computational issues regarding the parameter sensitivity in biological models

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The aim of this talk is to present computational issues contained in parameter sensitivity studies associated to several biological models. The local sensitivity is carried out by using the QR decomposition with column pivoting to the relative sensitivity matrix. We evaluate the relative identifiability of the parameters and establish orderings with respect to their identifiability. Also, a global sensitivity analysis is performed with sensitivity heat maps of the model variables and parameter sensitivity spectra.

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