Computational Tool for Surface Electromyography Analysis; an Easy Way for Non-Engineers

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Abstract : This paper presents a tool developed in the Matlab platform. It was developed to simplify the analysis of surface electromyography signals (S-EMG) in a way accessible to users that are not familiarized with signal processing procedures. The tool receives data by commands in window fields and generates results as graphics and excel tables. The underlying math of each S-EMG estimator is presented. Setup window and result graphics are presented. The tool was presented to four non-engineer users and all of them managed to appropriately use it after a 5 minutes instruction period.