

# Rehabilitation progress estimation concerning patients after ischemic brain stroke with the help of higher order spectra

Ewaryst Tkacz

Department of Biosensors and Processing of Biomedical Signals  
Faculty of Biomedical Engineering  
Silesian University of Technology  
Gliwice, Poland

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## Abstract

The lecture will present and discuss some new issues regarding application of signal processing tools in the field of biomedical engineering. Many authors appreciate spectral analysis of time series and rightly so. Often times information about the phase is neglected, especially when it is not important for diagnostic purposes. However, if phase is important, then one should bare in mind that the classical spectral analysis loses this information. For special applications regarding, e.g., the assessment of rehabilitation progress in patients after ischemic brain stroke, information about the phase if highly appreciated.

## About the presenter

- M.Sc. from Silesian University of Technology, Faculty of Automatic Control, Electronics and Computer Science (1982),
- Ph.D. from Brno University of Technology, Department of Biomedical Engineering (1987),
- D.Sc. from the Institute of Biocybernetics and Biomedical Engineering, Polish Academy of Sciences (1998),
- Full professor (2007).

Prof. Tkacz leads several lectures on Bionics, Digital Processing of Biomedical Signals, and Bioinformatics. He has successfully supervised twelve Ph.D. students.