METHODS OF DATA ANALYSIS

- Statistical description of random processes.
- Spectral analysis. Quadrant analysis. Data analysis with the aid of Hilbert-Huang (HHT) transformation.
- Time series analysis with the aid of Markov chains. Autoregression.
- Statistical methods related with weather forecast. Scores for discrete and continuous variables.
- Multidimensional methods. Principal component analysis - Discriminant analysis -Cluster analysis.
- Neural networks for estimation and forecast of meteorological variables.
- Computer lab with the aid of Matlab : Basic programming elements, data representation, interpolation methods, regression analysis, correlation, Fast Fourier Transform, power spectra density, Harmonic analysis, Cross- spectral analysis, Filters, Principal Component Analysis, Eigenvalue ANALYSIS.