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The manuscript

Andrzejak RG, Lehnertz K, Rieke C, Mormann F, David P, Elger CE (2001) Indications of nonlinear deterministic and finite dimensional structures in time series of brain electrical activity: Dependence on recording region and brain state, *Phys. Rev. E,* 64, 061907, abstract full text article
Please make sure that you cite the paper and that you cite it correctly when you publish results on these EEG recordings. A correct citation is essential, as it will allow others to find the data. The correct citation is *Phys. Rev. E, 64, 061907*.

Manuscripts of other groups which have analyzed the data

2003
[1] Gautama T, Mandic DP, Van Hulle MM (2003) Indications of nonlinear structures in brain electrical activity. Phys. Rev. E, 67: 046204

2004
[2] Nigam VP, Graupe D (2004) A neural-network-based detection of epilepsy. Neurol. Res. 26: 55-60

2005
[3] Güler I, Übeyli ED (2005) Adaptive neuro-fuzzy inference system for classification of EEG signals using wavelet coefficients. Journal of Neuroscience Methods, 148: 113-121

[4] Srinivasan V, Eswaran C, Sriraam N (2005) Artificial Neural Network Based Epileptic Detection Using Time-Domain and Frequency-Domain Features. Journal of Medical Systems, 29: 647-660

[5] Kannathala N, Rajendra Acharyab U, Limb CM and Sadasivana PK (2005) Characterization of EEG-A comparative study. Computer Methods and Programs in Biomedicine, 80: 17-23

[6] Güler NF, Übeyli ED, Güller I (2005) Recurrent neural networks employing Lyapunov exponents for EEG signals classification. Expert systems with applications, 29: 506-514

[7] Kannathala N, Choo ML, Acharyab UR, and Sadasivana PK (2005) Entropies for detection of epilepsy in EEG. Computer Methods and Programs in Biomedicine, 80: 187-194.

2006
[8] Abdulhamit S (2006) EEG signal classification using wavelet feature extraction and a mixture of expert model. Expert Systems with Applications, in press, doi:10.1016/j.eswa.2006.02.005

[9] Güler I and Übeyli ED (2006) Expert systems for time-varying biomedical signals using eigenvector methods. Expert Systems with Applications, in press, doi:10.1016/j.eswa.2006.02.002

[10] Harikrishnana KP, Misrab R, Ambikac G, Kembhavib AK (2006) A non-subjective approach to the GP algorithm for analysing noisy time series (2006) Physica D, 215, 137-145
[11] Adeli H, Ghosh-Dastidar S, Dadmehr N. (2006) A wavelet-chaos methodology for analysis of EEGs and EEG Sub-Bands to detect seizures and epilepsy. IEEE Transactions on Biomedical Engineering, 10.1109/TBME.2006.886855
[12] Srinivasan V, Eswaran C, Sriraam N, H., (2006) Approximate Entropy based Epileptic EEG detection using Artificial Neural Networks. IEEE Transactions on Information Technology in Biomedicine. 10.1109/TITB.2006.884369
[13] Übeyli ED (2006) Analysis of EEG signals using Lyapunov exponents. Neural Network World 16, 257-273
[14] Polat K, Güneşa S (2006) Classification of epileptiform EEG using a hybrid system based on decision tree classifier and fast Fourier transform. Applied Mathematics and Computation. doi:10.1016/j.amc.2006.09.022
[15] Venema V, Ament F, Simmer C (2006) A Stochastic Iterative Amplitude Adjusted Fourier Transform algorithm with improved accuracy Nonlin. Processes Geophys., 13, 321–328 (www.nonlin-processes-geophys.net/13/321/2006/)
[16] Übeyli ED, Güler I. (2006) Features extracted by eigenvector methods for detecting variability of EEG signals. Pattern Recognition Letters, in press, doi:10.1016/j.patrec.2006.10.004

2007
[17] Polat K and Gunes S (2007) Artificial immune recognition system with fuzzy resource allocation mechanism classifier, principal component analysis and FFT method based new hybrid automated identification system for classification of EEG signals. Expert Systems with Applications, in press

The data

The data analyzed in our study is available on this page. The sampling rate of the data was 173.61 Hz. For a more detailed description of the data please refer to the manuscript Please note, however, that the time series have the spectral bandwith of the aquisition system, which is 0.5 Hz to 85 Hz. The application of a low-pass filter of 40 Hz, as described in the manuscript, is regarded as the first step of analysis and therefore not carried out for the downloadable time series. Everyone is invited to send their comments or questions by email: **ralphandrzejak@yahoo.de** (remove the spaces in the address)

Files

For each set (A-E) there is a ZIP-file containing 100 TXT-files. Each TXT-file consists of 4096 samples of one EEG time series in ASCII code. SET A Z.zip with Z000.txt - Z100.txt (564 kB

SET A	Z.zip	with Z000.txt - Z100.txt	(564 kB)
SET B	O.zip	with O000.txt - O100.txt	(611 kB)
SET C	N.zip	with N000.txt - N100.txt	(560 kB)
SET D	F.zip	with F000.txt - F100.txt	(569kB)
SET E	S.zip	with S000.txt - S100.txt	(747kB)

Examples

This EPS-file (602kB) shows one exemplary EEG time series for every set. These are the time series Z093, O015, N062, F021, S056.

Links to other data sources

On the page of Rodrigo Quian Quiroga several time series of neuronal dynamics from humans and from animal models can be found along with corresponding manuscripts.

A very comprehensive collection of continuous EEG recordings can be found at the page of the Freiburg Center for Data Analysis and Modeling.

EEG / ERP data available for free public download

to be continued

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