

A brief description of the electricity consumption time series

This dataset is a part of the original one which can be found at <http://www.economagic.com>. This time series focus on the US monthly electricity consumed by the residential and commercial sectors from January 1973 up to February 2001 (338 months). For our purpose we retain the last 28 years (336 months) and we eliminated the heteroscedasticity and the linear trend by differencing the log-data. Finally, this time series $\{z_i\}_{i=1,\dots,336}$ is loaded into a 28×12 matrix, the i th corresponding to the i th year. The file “npfda-electricity.dat” is organized as follows:

	Col 1	...	Col j	...	Col 12
Row 1	z_1	...	z_j	...	z_{12}
\vdots	\vdots	\vdots	\vdots	\vdots	\vdots
Row i	$z_{1+12(i-1)}$...	$z_{j+12(i-1)}$...	z_{12i}
\vdots	\vdots	\vdots	\vdots	\vdots	\vdots
Row 28	z_{325}	...	z_{324+j}	...	z_{336}

This time series can be viewed as dependent functional data (i.e population of 28 curves, 1 year = 1 curve).