



A New Multi-Variate Time Series Analysis Tool

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There are unique challenges in all aspects related to large data sets, from storage, search and access, to analysis and file sharing. Here we review our efforts on (i) implementing advanced data mining techniques as part of the data-to-knowledge discovery pipeline, and (ii) use of social networking paradigm in the development of a science collaborative environment that enables sharing of large files, creation of projects, among others. We will present new data mining software that works on a variety of data formats and demonstrate its capability through several examples of analysis of spacecraft data. This new technique is automated, has been found to have superior metrics compared to standard techniques and always yields an analytical model (i.e., function) rather than the black-box model of artificial neural nets. Its success includes deployment in other science domains such as genomics, spaceweather, climate modeling, among others.