

Advanced Data Analysis for Industrial Applications

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One of the principal tasks of nowadays industry is process intensification. The methodology for finding reliable results is highly demanded. While marketing is concentrated on analysis big data that are available in eShops as well as other internet media, the situation in the industry is different because solution must be found in real time based on limited amount of data. The algorithms of data analysis must therefore be fast and robust. In the last few decades statistical methods have advanced considerably but a new, nonstatistical approach to uncertainty, called mathematical gnostics, have also be developed. This new approach is based upon the fundamental laws of nature and robustness is its inherent property. The contribution will present several applications with the emphasis laid upon description of the main features of mathematical gnostics. Previous applications in energetics that can be enhanced by use of the modern algorithms of data analysis will also be mentioned.

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