Complexity



Special Issue on Complex Methods Applied to Data Analysis, Processing, and Visualization



The amount of data available every day is not only enormous but growing at an exponential rate. Over the last ten years there has been an increasing interest in using complex methods to analyse and visualize massive data generated from very different sources and with many different features: social networks, surveillance systems, smart cities, medical diagnosis, business, cyberphysical systems, or media digital data. This special issue is designed to serve researchers and developers to publish original, innovative, and state-of-the-art machine complex methods algorithms and architectures to analyse and visualize large amounts of data and solve a range of problems.

We are particularly interested in candidates who have conducted research in the theoretical or practical aspects of data processing: algorithms using complex methods (including chaos, genetic algorithms, cellular automata, neural networks, and evolutionary game theory), statistical learning methods applied to one or more domains: software engineering, media digital data, bioinformatics, health care, imaging and video, social networks, natural language processing, and others.

Potential topics include but are not limited to the following:

- > Chaos steganography algorithm for multimedia data mining
- Neural networks in visual surveillance
- Artificial neural network model for education data learning
- Location big data mining with cellular automata
- ▶ Intelligent web mining technique using genetic algorithms
- Multimedia data (signal, 2D/3D image, and video) analysis in medicine, science, and engineering using complex methods algorithms
- An optimization of semantic image analysis using genetic algorithm approach: human activity recognition, face/facial expression recognition, scene understanding, object detection and tracking, and saliency detection
- Intelligent text mining model using deep neural network
- > Sentiment analysis and opinion mining using convolutional neural network

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/complexity/cmd/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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