fractal and fractional

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Fractal Analysis in Biology and Medicine

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Message from the Guest Editor

The complexity is expressed as a fractal dimension, which depicts the space-filling properties of different irregularly shaped objects that can be found in various living and non-living objects. In the vast field of biomedical sciences these objects usually represent various forms of cells, their ultrastructural parts. Traditional quantitative, semiquantitative, and qualitative techniques of analysis of these structures provide results of limited value, fractal analysis has now proven to be a useful tool for the detection of those changes in biological objects obtained from both physiological and pathological conditions. In addition to objects obtained from histological images, fractal analysis is increasingly used in the analysis of various images obtained using different imaging methods and biological signals, such as the complexity-based analysis of brain and muscle electrical activity.

This Research Topic will welcome diverse types of articles including original research articles, review articles, technical note articles, and perspective articles related to the application of fractal analysis in different biomedical fields.