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Modeling and Control of Fractal and Fractional Dynamical Systems in Neurological Disorders

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Message from the Guest Editors

Neurological disorders are considered to be complex affections from both clinical and mathematical perspectives. That is why mathematics and engineering have been trying for some time to contribute to objectively revealing the non-apparent characteristics of this type of disease. Finding suitable models has become more and more challenging, and “non-conventional” dynamical structures must be used. It is in this sense that fractional and fractal dynamics appear to provide alternative techniques to address such intricate and long-suffering diseases; not only for patients, but also for caregivers. This Special Issue will also focus on typical complex affections that include seizure and degenerative disorders.

Increasingly complex algorithms have been proposed to reflect more of the underlying dynamics of these conditions, but only recently have they been considered from fractal or fractional dynamics viewpoints.

As a consequence of the shortage of fractal and fractional dynamical models to investigate the complex diseases described above, we encourage the scientific community to participate in our novel Special Issue.



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Special Issue