Numerical Analysis in Medicine and Its Application in Biomaterials

Guest Editors:

Dr. Kamil Jurczyszyn
Department of Oral Surgery, Wroclaw Medical University, Krakowska 26, 50-425 Wroclaw, Poland

Prof. Dr. Marcin Kozakiewicz
Department of Maxillofacial Surgery, Medical University of Lodz, 113 Żeromskiego Str., 90-549 Lodz, Poland

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Message from the Guest Editors

Modern numerical analyses are most commonly applied in medicine and related branches. In common practice, we are used to applying Euclidian geometry, but this classical method shows its disadvantages in the case of complicated shapes/patterns analyses. Such patterns are observed in the case of the microstructure of biomaterials, bone, skin, lesions, etc. Euclidian geometry may fail in these cases. Advanced algorithms of image analysis, such as fractal dimension analysis or texture analysis, may be helpful, especially in regard to the correlation of their results with easier measurable mechanical parameters, such as roughness, hardness, and flexibility. Another way to use the aforementioned methods is to implement them in computer-aided diagnosis systems.

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Dr. Kamil Jurczyszyn
Prof. Dr. Marcin Kozakiewicz
Guest Editors

Special Issue

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

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