

Special Issue

Novel Advances in Computer-Assisted Surgery

Message from the Guest Editor

The field of computer-assisted surgery is constantly expanding in terms of image acquisition, image processing and analysis, surgical planning and robotic surgery. The ultimate purpose of these different processes is increased surgical results. It is without a doubt that the future of surgery will also be shaped by artificial intelligence, which will find its way in all aspects of patient management, from decision-making to assisting procedures and ultimately replacing the surgeon as we know it today. This Special Issue aims to gather papers regarding the use of machine learning (ML) and artificial intelligence (AI) in the perioperative scene, including image acquisition and processing; the use of the tridimensional reconstruction of medical images in surgical planning; simulators (computer-aided surgical simulation); enhancing operative view with various methods; the use of ML and AI in reducing/eliminating human limitations and error; and remote surgery.

Guest Editor

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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