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Editorial message from the Editor-in-Chief

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EDITORIAL



Editorial message from the Editor-in-Chief

I am pleased to welcome you to Volume V of our journal *Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization*.

This is the first issue of 2017, and therefore, an appropriate moment to present you the latest news and numbers concerning our Journal. In 2016, the Journal attained three important goals: (1) to be indexed in the dblp computer science bibliography and (2) in the Thomson Reuters Emerging Sources Citation Index, which confirms once more the recognition of the standards of the Editorial Board and the high quality of the articles presented in our Journal and (3) the page budget of the Journal was increased again, from 360 to 480, which is a result of the high regard held for the authors. Last year, the Journal received a total of 194 manuscripts from 44 countries: Algeria, Australia, Austria, Bangladesh, Brazil, Canada, Chile, China, Czech Republic, Denmark, France, Germany, Greece, Hong Kong, Hungary, India, Indonesia, Iran, Israel, Italy, Japan, Jordan, Korea, Libya, Malaysia, Morocco, Netherlands, New Zealand, Pakistan, Poland, Portugal, Qatar, Romania, Russian Federation, Saudi Arabia, Singapore, Spain, Sweden, Taiwan, Thailand, Turkey, United Kingdom, United States and Venezuela, which corroborates the excellent worldwide recognition and acceptance of our Journal. Maintaining the outstanding quality of the works published in the Journal, the Editorial Board accepted 51 and rejected 61 articles in 2016. In the six issues of Volume IV, 30 articles were published:

In the first Issue of Volume IV, 3 articles were published: (1) Mohapatra and collaborators addressed the problem of morphometric classification of acute lymphoblastic leukaemia in blood microscopic images using an automated approach based on an ensemble of classifiers, (2) Razmkhah and Ghasemnejad presented an explicit finite element analysis to predict the impact damage response of osteoporosis hip bone and (3) Islam *et al.* recommended improved regularisation constraints for compressed sensing of multi-slice magnetic resonance images.

The following issue was devoted to *The 4th ComplIMAGE conference – Computational Modeling of Objects Presented in Images: Fundamentals, Methods, and Applications (ComplIMAGE'14)*. This special issue was organised by Yongjie Jessica Zhang (Carnegie Mellon University) and João Manuel R.S. Tavares (Universidade do Porto) and included six articles: (1) Hu and Zhang investigated the image segmentation and adaptive superpixel generation based on harmonic edge-weighted centroidal Voronoi tessellation, (2) Ulu and co-workers presented a data-driven investigation and estimation of optimal topologies under variable loading configurations, (3) a pixel-based meshfree modelling of skeletal muscles was proposed by Chen *et al.*, (4) Gao and collaborators

presented a 3D shape comparison of cardiac geometries using a Laplace spectral-shape-matching approach, (5) the development of a free representation for level set method with a priori knowledge was introduced by Sguario *et al.* and (6) Drakopoulos and Chrisochoides addressed the problem of medical image registration for brain tumour resection using image-guided neurosurgery.

The third and fourth issues of the Journal were related to the *IV ECCOMAS thematic conference on computational vision and medical image processing (VipIMAGE)* and organised by R.M. Natal Jorge (Universidade do Porto) and João Manuel R.S. Tavares (Universidade do Porto). The 11 articles included in these special issues were: (1) a new imaging biomarker for prostate cancer aggressiveness by Giannini *et al.*, (2) the study of the input and organ functions in dynamic scintigraphic imaging by Tichý and collaborators, (3) the use of Legendre moments as biomarkers for an efficient and accurate classification of bone tissue on images coming from stem cell regeneration studies by Lachiondo and co-workers, (4) a non-invasive method to infer information concerning the fibre architecture in real human left ventricle walls by Evangelista *et al.*, (5) a survey for the identification of fractured bone tissue from CT images by Paulano and co-workers, (6) the reconstruction of standard 12-lead system from a Frank vector cardiographic system was addressed by Maheshwari and collaborators, (7) the metal artefact reduction in computed tomography images by Faggiano *et al.* based on a fourth-order total variation flow, (8) a novel behavioural comparison strategy specifically oriented to accuracy assessment in glial tumour segmentation studies based on magnetic resonance imaging by Binaghi and collaborators, (9) the automatic tracking and deformation measurements of red blood cells flowing through a microchannel with a microstenosis by Taboada *et al.*, (10) a new method to estimate the contrast parameter of the Perona-Malik diffusion equation by Borroto-Fernández and co-workers and (11) the evaluation of 3D-structure analysis tools for a simulated bone remodelling process by Ricordeau and Mellouli.

In the fifth issue, the following five studies were included: (1) the left-ventricular epi- and endocardium extraction from 3D ultrasound images using an automatically constructed 3D active shape model by Butakoff *et al.*, (2) Aubert and collaborators addressed the 3D reconstruction of rib cage geometry from biplanar radiographs using a statistical parametric model approach, (3) a denoising filter with edge preservation for magnetic resonance images of the articular cartilage by Aarya *et al.*, (4) the automatic tracking of pupillary dynamics from *in vivo* functional optical coherence tomography images by Liu and collaborators and (5) the implementation of three different segmentation

techniques for quantitative evaluation of intima-media thickness in B-mode ultrasound common carotid artery images by Naik and co-workers.

The sixth and last issue of Volume IV also had five articles: (1) Wu *et al.* compared global shape analysis methods for the assessment of the human right ventricle, (2) the relaxation times and diffusion tensor imaging detecting changes within bovine nucleus pulposus during enzyme digestion by Manac'h and collaborators, (3) a mechanical assessment of trabecular bone stiffness using hybrid skeleton and finite element analysis by Almhdie-Imjabber *et al.*, (4) Breighner and co-workers studied the relative accuracy of spin-image-based registration of partial capitate bones in dynamic four-dimensional computed tomography images of the wrist and (5) Cho *et al.* presented a radiological dose analysis for computed tomography measurement of abdominal body fat in the last article of Volume IV.

In order to recognise the outstanding quality of the articles published, the Editorial Board established the *Best Paper Award* for the best paper published in the Journal each biennium. The best paper is selected from the manuscripts published each biennium by the Editor-in-Chief, Associated Editors and members of the Advisory Board of the Journal, based on the originality of the contribution and readability of the manuscript. For the 2015–2016 biennium, I am pleased to announce that the winner is the article *Robust initialisation for single-plane 3D CT to 2D fluoroscopy image registration* by Masuma Aktera, Andrew J. Lambert, Mark R. Pickering, Jennie M. Scarvell and Paul N. Smith, which I would

like to acknowledge for choosing our Journal to publish their work and congratulate them for the excellence of their article.

Once again, I would like to thank the members of the Advisory and Editorial Boards whose excellence and international recognition has been crucial for the credibility and distinction that our Journal has attained. A particular mention to the Associated Editors for continuing their role in helping me manage the Journal so proficiently; I feel privileged to have such active and motivated colleagues working with me on this project. My appreciations also go to the Taylor & Francis group that works with me, and whose continuous support has been vital for the correct managing and dissemination of our Journal.

Computer Methods in Biomechanics and Biomedical Engineering: Imaging Visualization has been able to attract remarkable authors and readers. In order to interest other outstanding authors and readers, our efforts will be on the continuous dissemination of our Journal through the best related research groups and forums. In addition, with the goal of gathering works on fresh topics, solutions and applications related to bio-imaging and -visualisation, the Journal will continue to welcome proposals for special issues.

As I always state, two groups are essential for the success of any journal: the authors and the readers. Hence, you all have had a fundamental role in the success of our Journal, which is deeply appreciated.

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Editor-in-Chief

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