Editorial

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Efficient and powerful image and data analysis technologies have been assuming a growing and crucial importance in the area of biomedical sciences, allowing deep examination and understanding of the human body and, therefore, playing an essential role for adequate prognosis, diagnosis, treatment and follow-up. This is especially clear in clinical practice applications, where vast amounts of molecular, cellular, anatomic, individual and population information is available and multiple correlations and models have been developed in the literature. The development of this kind of systems can be improved with the effective use of e-infrastructures (grid/cloud) and high performance computing services. Moreover, medical imaging is currently the second type of data stored in digital archives, according to their size. In this sense, both the EU and the USA

are paying attention to the development of e-infrastructures dedicated to medical imaging (such as Euro-BioImaging and Biomedical Informatics Research Network).

The IBERGRID 2014 was the 8th edition of the Iberian Grid Infrastructure Conference that have been organised since 2007 in the context of bilateral agreements between governments of Portugal and Spain. The IBERGRID conferences are a forum for researchers, application developers and infrastructure managers to share experiences, new ideas and research results. These conferences have been instrumental to enable the creation of an Iberian distributed computing infrastructure. The IBERGRID2014 conference had a strong focus on cloud computing and related technologies. In this context was held a 'Workshop on Biomedical Image Analysis' aims to bring together researchers involved in related domains, in order to share knowledge on the main lines of development in medical imaging storing, managing and processing with support on e-infrastructures.

This proposed special issue entitled 'Advanced computing services for biomedical image analysis' comprise selected and peer-reviewed extended articles (some of them previously presented in the 'Workshop on Biomedical Image Analysis' at IBERGRID 2014) related to medical image analysis applications supported on e-infrastructures.

We would like to express our sincere thanks to authors, collaborators and the staff members of both *International Journal of Image Mining* and Inderscience that contributed to produce this special issue.