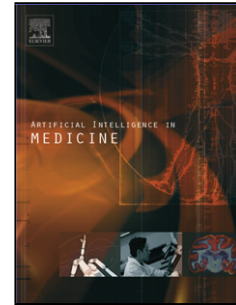


Accepted Manuscript

Title: Pattern identification of biomedical images with time series: Contrasting THz pulse imaging with DCE-MRIs

Author: Xiao-Xia Yin Sillas Hadjiloucas Yanchun Zhang
Min-Ying Su Yuan Miao Derek Abbott



PII: S0933-3657(16)30011-2
DOI: <http://dx.doi.org/doi:10.1016/j.artmed.2016.01.005>
Reference: ARTMED 1445

To appear in: *ARTMED*

Received date: 30-6-2015
Revised date: 28-12-2015
Accepted date: 16-1-2016

Please cite this article as: Xiao-Xia Yin, Sillas Hadjiloucas, Yanchun Zhang, Min-Ying Su, Yuan Miao, Derek Abbott, Pattern identification of biomedical images with time series: Contrasting THz pulse imaging with DCE-MRIs, *Artificial Intelligence In Medicine* (2016), <http://dx.doi.org/10.1016/j.artmed.2016.01.005>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

This is a literature review paper, aiming to provide a survey of recent advances in biomedical image analysis and classification from emergent imaging modalities such as terahertz (THz) pulse imaging (TPI) and dynamic contrast-enhanced magnetic resonance imaging (DCE-MRI) and identify their underlining commonalities.

Highlights of our review include a generic approach for treating two-dimensional pixel as well as three-dimensional voxel datasets on the basis of identified amplitude and phase features in the respective time-domain signatures of such heterogeneous datasets; this enables the development of a unified multi-channel signal processing framework for biomedical image analysis. A further highlight is the use of the proposed classification methodology to enable the fusion of entire datasets from a sequence of images taken at different time stamps from the viewpoint of inferring disease proliferation.

Accepted Manuscript

Download English Version:

<https://daneshyari.com/en/article/6853422>

Download Persian Version:

<https://daneshyari.com/article/6853422>

[Daneshyari.com](https://daneshyari.com)