

Accepted Manuscript

Multi-Scale Deep Networks and Regression Forests for Direct Bi-ventricular Volume Estimation

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PII: S1361-8415(15)00102-4
DOI: [10.1016/j.media.2015.07.003](https://doi.org/10.1016/j.media.2015.07.003)
Reference: MEDIMA 1026



To appear in: *Medical Image Analysis*

Received date: 8 September 2014
Revised date: 29 March 2015
Accepted date: 11 July 2015

Please cite this article as: Xiantong Zhen, Zhijie Wang, Ali Islam, Mousumi Bhaduri, Ian Chan, Shuo Li, Multi-Scale Deep Networks and Regression Forests for Direct Bi-ventricular Volume Estimation, *Medical Image Analysis* (2015), doi: [10.1016/j.media.2015.07.003](https://doi.org/10.1016/j.media.2015.07.003)

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Highlights

- We propose a general, fully learning-based framework for direct estimation of cardiac bi-ventricular volumes by combining the strengths of both generative and discriminant learning.
- A novel multi-scale convolutional deep network is proposed for unsupervised cardiac image representation learning from unlabeled data.
- Bi-ventricular volume estimation is formulated as a regression problem and random forests are employed for efficient volume estimation.

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