

Accepted Manuscript

Automatic Online Layer Separation for Vessel Enhancement in X-ray Angiograms for Percutaneous Coronary Interventions

Hua Ma, Ayla Hoogendoorn, Evelyn Regar, Wiro J. Niessen, Theo van Walsum

PII: S1361-8415(17)30068-3
DOI: [10.1016/j.media.2017.04.011](https://doi.org/10.1016/j.media.2017.04.011)
Reference: MEDIMA 1253



To appear in: *Medical Image Analysis*

Received date: 8 August 2016
Revised date: 12 March 2017
Accepted date: 27 April 2017

Please cite this article as: Hua Ma, Ayla Hoogendoorn, Evelyn Regar, Wiro J. Niessen, Theo van Walsum, Automatic Online Layer Separation for Vessel Enhancement in X-ray Angiograms for Percutaneous Coronary Interventions, *Medical Image Analysis* (2017), doi: [10.1016/j.media.2017.04.011](https://doi.org/10.1016/j.media.2017.04.011)

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.

Highlights

- A fast automatic online layer separation method for X-ray angiograms is proposed.
- The method separates X-ray frames into 3 layers including a vessel-enhanced layer.
- The method relies on online robust principal component analysis (OR-PCA).
- Down-weighting past frames could improve layer separation for the current frame.
- The method can improve vessel visibility in X-ray images with low vessel contrast.

ACCEPTED MANUSCRIPT

Download English Version:

<https://daneshyari.com/en/article/4953383>

Download Persian Version:

<https://daneshyari.com/article/4953383>

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