
# Deep Learning for Automated Skeletal Bone Age Assessment in X-Ray Images

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PII: S1361-8415(16)30184-0
DOI: 10.1016/j.media.2016.10.010
Reference: MEDIMA 1205

To appear in: *Medical Image Analysis*

Received date: 2 March 2016
Revised date: 10 October 2016
Accepted date: 12 October 2016

Please cite this article as: C. Spampinato, S. Palazzo, D. Giordano, M. Aldinucci, R. Leonardi, Deep Learning for Automated Skeletal Bone Age Assessment in X-Ray Images, *Medical Image Analysis* (2016), doi: 10.1016/j.media.2016.10.010

**Highlights**

- Testing several Convolutional Neural Network approaches (from off-the-shelf CNN to fine-tuning existing models) to assess skeletal bone age automatically;
- Proposing the BoNet, a CNN network for automated skeletal age assessment
- First automated skeletal bone age assessment work tested on a public dataset and for all age ranges, races and genders, for which the source code is available, thus representing an exhaustive baseline for future research in the field.
- Providing answers to more general questions about deep learning on medical images: from the comparison between deep-learned features and manually-crafted ones, to the usage of deep-learning methods trained on general imagery for medical problems, to how to train a CNN with few images.