

# Declarative Reasoning over Ontologies and Big Data

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- ACLLMPRVZ, “*The AI System DLV: Ontologies, Reasoning, and more*”, 10<sup>th</sup> International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management (IC3K 2018), Seville Spain 18-20 September 2018
- CFPZ, “*I-DLV: The new intelligent grounder of DLV*”, *Intelligenza Artificiale* 11(1): 5-20, 2017.

# Vessel Segmentation in X-Ray Angiograms using Convolutional Neural Networks

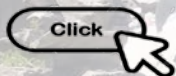
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- Abstract: The assessment of vascular complexity in lower limbs brings important information about peripheral artery diseases, with a relevant impact on both therapeutic decisions and prognostic estimation. Automatic image analysis could offer a fast and reliable technique to support physicians with the clinical management of these patients.
- (Some) Activities: (1) perform a "Top-bottom Hat transformation" technique for vessel enhancement, (2) define a convolutional neural networks (CNN) for detecting vessel regions in angiography images.
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useful links

<https://ieeexplore.ieee.org/document/7590784/>

<https://www.sciencedirect.com/science/article/pii/S1746809417302215>

<https://www.sciencedirect.com/science/article/pii/S0030399213003927>



# Multiple Sclerosis Lesion Segmentation using Autoencoder Neural Networks

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  - CMST, “*Graph Based Neural Networks for Automatic Classification of Multiple Sclerosis Clinical Courses*”, European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN), 2018, to appear.
  - CMST, “*Biomedical Data Augmentation using Generative Adversarial Neural Networks*”, 26th International Conference on Artificial Neural Networks (ICANN), 2017
  - CMST, “*Optic Disc Detection using Fine Tuned Convolutional Neural Networks*”, IEEE 12th International Conference on Signal-Image Technology & Internet-Based Systems (SITIS), pp. 69-75, 2016

