EARLY-CAREER RESEARCHERS IN MEDICAL APPLICATIONS @ CERN – SHORT TALKS

Contribution ID: 2 Type: not specified

CAFEIN project: A deep learning approach for diagnosis' support

Wednesday 9 November 2022 16:35 (15 minutes)

A novel AI-based tool to assist clinicians, patients and caregivers in the analysis, diagnosis and prognosis of brain abnormalities based on the integration of clinical and imaging data. CAFEIN follows the 'life-cycle' of a radiology department and implements machine and deep learning tools using raw magnetic resonance images, X-ray images and patient data in order to improve clinical workflow's efficiency and performance. The tool focuses on strokes, brain tumors, multiply sclerosis and small vascular diseases while targets on detection, segmentation and classification tasks.

Medical applications developed over the CAFEIN:

- a. Brain MRI anomaly screening
- b. Multi-pathology detection and classification

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