

Analysis of medical images: the MAGIC-5 Project

Tuesday, February 23, 2010 10:40 AM (40 minutes)

The MAGIC-5 Project focuses on the development of analysis algorithms for the automated detection of anomalies in medical images, compatible with the use in a distributed environment.

Presently, two main research subjects are being addressed: the detection of nodules in low-dose high-resolution lung computed tomographies and the analysis of brain MRIs for the segmentation and classification of the hippocampus as an early marker of the Alzheimer's disease.

MAGIC-5 started as a spin-off of high energy physics software development and involves a community of developers in constant contact with - some of them also involved in - HEP projects.

The most relevant results will be presented and discussed, together with a new model, based on virtual ant colonies, for the segmentation of complex structures. The possible use of such a model in HEP is addressed.

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Track Classification: Data Analysis - Algorithms and Tools