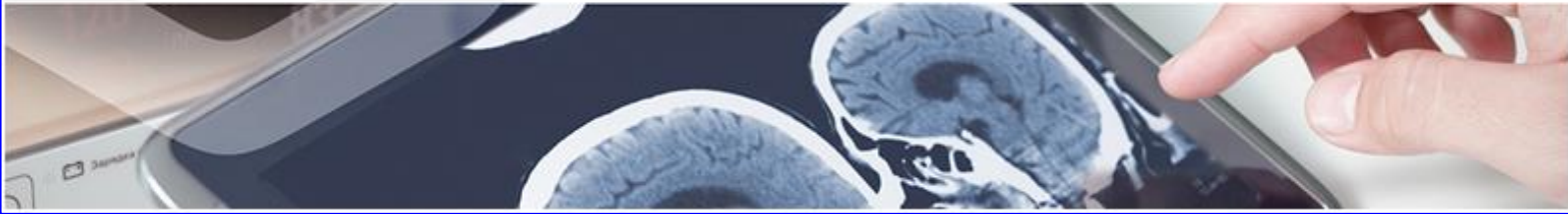


Software

SOFTWARE MELAGE.

A research group at the Institute for Biomedical Research and Innovation of Cadiz (INiBICA) has designed an application to visualise medical images.



Description

Melage is a software developed for the visualisation of medical images. It has been designed as a versatile platform, although initially it is especially prepared to visualise and work with ultrasound scans and brain MRI scans of newborns. It allows loading images in two and three dimensions of both techniques and in the case of 3D images it allows simultaneous visualisation of the three orthogonal planes, which facilitates the localisation of the regions of interest. It has been developed in Python with a user-friendly interface for healthcare personnel.

Melage is an innovation in neonatal neuroimaging as it incorporates tools developed by the "Neonatal brain damage" research group, attached to INiBICA, based on neural networks, for the estimation of total brain volume and ventricular volume. It also allows linear, area and volumetric measurements in a very intuitive and easy way, being able to instantly see the segmented region in a new tab.

Another new development is the possibility of visualising ultrasound and MRI in the same tab, oriented in a similar way, which can facilitate the clinicians' diagnostic approach by obtaining information from two complementary techniques.

In the case of MRI, it has been possible to incorporate the automatic segmentation of more than 100 brain structures through the optimisation of openly available atlases.

The software is under continuous development, although it has a solid base and the improvements that are made can be incorporated through new versions.



Advantages

1. It is a tool that, when is available to clinicians, facilitates the analysis of medical images by the healthcare clinician by having an intuitive and simple user interface.
2. Facilitates automatic measurement of structures of interest to the clinician which optimises image interpretation and can lead to improved clinical care.



Intellectually/Industry Property

It is protected by an Intellectual Property Register (RPISC2211222681375).



Aims

Collaboration is sought for the development and exploitation of the technology.



Classification

Category: Software

Area: Radiodiagnostics