Molecular Biotechnology Programme
Uppsala University School of Engineering

UPTEC X 02 037 | **Date of issue 2002-12**

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Title (English)

Image processing using statistical tools in the diagnosis of dementia

Title (Swedish)

Abstract

Three methods for quantitative analysis of brain changes in dementia were developed in ANSI C. The correlation method computes the correlation between a neuropsychological test and the local cerebral blood flow for each volume element of the brain. The Cavalieri stereology method calculates the volume of tissues in the brain. The Fuzzy clustering algorithm classifies every image volume element to a predefined tissue class.

Keywords

Image processing, dementia, SPECT, MRI, atrophy, cerebral blood flow, correlation, stereology, fuzzy clustering

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Project name	Sponsors
Language **English**	Security
ISSN 1401-2138	Classification
Supplementary bibliographical information	Pages **34**

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