

综述·探索

医学图像处理与分析软件平台综述

李恩中+

国家自然科学基金委员会 生命科学部, 北京 100085

收稿日期 修回日期 网络版发布日期 2008-9-18 接受日期

摘要 医学图像处理与分析技术可以给医生提供更清晰、更准确的信息, 以利于疾病的诊断和鉴别诊断。医学图像分割、医学图像配准以及三维可视化等算法是医学图像处理与分析发展的源动力, 而基于这些算法研究的软件平台是医学图像处理与分析前进的加速器。现有的医学图像处理与分析软件平台极大地便利了医学影像领域的研究者与应用者, 大大加快了医学影像发展的步伐。对国内外医学图像处理与分析的软件平台进行了比较系统的归纳, 详细地介绍了各类主流软件平台, 并充分地讨论了各种平台的优缺点, 旨在推广医学图像处理与分析软件平台在国内的应用, 并激发国内医学影像领域的研究者对医学图像处理与分析软件平台贡献自己的力量。

关键词 [分割](#) [配准](#) [可视化](#) [软件平台](#)

分类号

Review of medical image processing and analyzing software platforms

LI Enzhong+

Department of Life Sciences, National Natural Science Foundation of China, Beijing 100085, China

Abstract

The technology of medical image processing and analyzing can provide more clear and accurate images and more useful quantitative information for the doctor to assist the diagnosis and treatment. The development of algorithms such as segmentation, registration and 3D visualization is the motivation of medical image processing and analyzing, while the software platforms based on these algorithms are the accelerators of medical image processing and analyzing. Many software platforms have been designed for scientific research or providing wieldy assistant tool for certain users. This paper introduces some mainstream platforms, and discusses the advantages and shortcomings of these platforms adequately. Our aim is to spread the applications of medical image processing and analyzing software platform, and motivate the researchers to contribute to the development of the software platforms.

Key words [segmentation](#) [registration](#) [visualization](#) [software platform](#)

DOI: 10.3778/j.issn.1673-9418.2008.05.002

通讯作者 李恩中 liez@mail.nsf.gov.cn

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(1527KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [复制索引](#)
- ▶ [Email Alert](#)
- ▶ [浏览反馈信息](#)

相关信息

- ▶ [本刊中 包含“分割”的 相关文章](#)
- ▶ 本文作者相关文章
- [李恩中](#)