

Student Summer Job: Survey of MRI Practice

A student is wanted to help carry out survey of MRI practice. This would be a summer job starting as soon as possible and continuing up to the beginning of the 2008–9 school year. Exact timing is negotiable.

Present MRI protocols have patient cycle times of 30–60 minutes. Each protocol commonly comprises several MRI pulse sequences (PS) designed to gather various spatial and/or NMR parametric information. Each PS may take only a few minutes, but adding up these durations plus time to make interscan adjustments and communicate with patients increases examination times to the figures mentioned above.

Our hypothesis is that the information obtained by the various pulse sequences used in these examinations is not unique and that, in general, more efficient imaging PSs can be designed to obtain the necessary medical information in much shorter time.

The ultimate goal is to have a complete examination in ten minutes, with examination cycle time 15 minutes.

Our initial task is to carry out a survey of practice at Hopkins and other MRI centers in the Baltimore area to gather statistics about different approaches to MRI examinations. This work will involve organizational, computer and statistical skills. The result should be publishable.

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