

From: Lee, John leej@mir.wustl.edu
Subject: Re: pet aif project matlab code attached
Date: March 26, 2014 at 7:00 PM
To: Shimony Josh shimonyj@mir.wustl.edu



Josh:

The version of wrapper bayes_petmri that you sent uses a function handle to logprob_petmri which I do not yet have. I'll assume that substituting a function handle to logprob_exp, which I have and which calls calc_mriaif as well as calc_petaif, will be reasonable and continue exploring the code.

Thanks,
John

On Mar 25, 2014, at 2:48 PM, Shimony, Joshua <shimonyj@mir.wustl.edu> wrote:

John

Here is the code.

the .mat file is the pet data from one subject. it has AIF, whole brain (WB), white matter (WM), gray matter (GM) but I don't use all that info.

bayes_petmri is the wrapper and it now estimates too many parameters. I can explain in person.

calc_mriaif creates a fake mri AIF so this can be replaced by the real thing

calc_petaif get the pet aif from the mri aif using a convolution.

logprob_exp checks how good the estimate is. it currently uses both the aif and the WB curve, but i think it is a cheating version now since it tries to optimize the fake mri aif, which normally it would not do. This has to be changed and it may be best if I show you how.

mcmc is the hard core piece of the code that does the markov chain stuff. Best to not change this.

we likely need to meet to get you going.

thanks

Josh

<p7861ho1AS.mat><bayes_petmri.m><calc_mriaif.m><calc_petaif.m><logprob_exp.m><mcmc.m>