

April 16, 2014

Dear Editor,

Please find enclosed the resubmission of an invited review article on the design of functional MRI experiment for a special issue of the journal.

Title: Recent developments in optimal experimental designs for functional MRI

Author: Ming-Hung Kao, M'hamed Temkit and Weng Kee Wong

Name of Journal: *World Journal of Radiology*

ESPS Manuscript NO: 8642

We thank all the reviewers for reviewing this article. As described below, some part of the paper has been revised according to the suggestions of the reviewers.

1. In the fMRI design literature, some works focused on the designs for detecting brain activations, some authors studied only the designs for estimating the HRFs, while the other articles discussed designs for one or more objectives. As also indicated in our paper, good designs for these two objectives can be very different. We thus pointed them out separately to make a clear distinction, and discussed some computational methods for cases where both detection and estimation are of interest. We also have now emphasized this situation in the third paragraph of page 11, in the last sentence of the second paragraph on page 14, and the first line on page 15.

2. In the second paragraph of page 7, we now have provided references to support our argument about the use of dual models for detection and estimation. We also have emphasized that Equation (2) is an extension of Equation (1). In addition, in the last paragraph of page 11, we have now referred readers to a reference for the importance of the estimation of the HRFs. We have also deleted the part about making inference on the duration of brain activity.

3. We have provided a clearer explanation of the τ_{ISI} in the last paragraph on page 6.

Sincerely yours,

Ming-Hung Kao

Mailing address:

Ming-Hung Kao

School of Mathematical and Statistical Sciences

Arizona State University

P.O. Box 871804, Tempe, Arizona 85287

E-mail address: mkao3@asu.edu