

BSCB 694: Functional Data analysis
Class Discussion
April 5

The class discussion will center around the seminal article:

Brumback, B. A. and Rice, J. A., 1998, "Smoothing Spline Models for the Analysis of Nested and Crossed Samples of Curves". Journal of the American Statistical Association, Number 93, pages 961-994.

and the supplementary discussion. The article and discussion can be downloaded at JSTOR – see the class home page for links.

Our discussion format will take the form of mini presentations. You will have one of the following sections to focus on

- Data and the problems it poses
- *The proposed model and method (Section 2)
- Estimation and Computation (Section 3)
- *Bootstrap validation (Section 4)
- *Discussion by Wang and Wahba - how to view this as a general function estimation problem.
- *Discussion by Fan and Zhang - how to use local polynomial regression for the problem.
- *Discussion by Kneip - questions about the model.
- *Discussion by Ramsay and Silverman - how to use the FDA software.
- Rejoinder by Brumback and Rice.

I will assign starred sections first.

Your presentation will be short (only a few minutes) and will need to focus on the salient aspects of what is being said. Do not dwell on technical details, but discuss the main ideas in an intuitive sense.

You should, of course, have read the article and discussion in full and be prepared to provide a critical analysis and your own point of view on how best to attack the data. There will be some time at the end for a more open discussion.