

# **Corrections on the paper “Estimation in functional linear quantile regression models”**

2013.6.11. minor edit: 2014.9.5 and 2015.4.27.

1. Page 6 line 2 from the bottom to page 7 line 1-2 is not rigorous. More precisely, this part should read “where  $\{\kappa_j\}_{j=1}^\infty$  is a set of nonnegative eigenvalues with  $\kappa_j \rightarrow 0$  as  $j \rightarrow \infty$ , and  $\{\phi_j\}_{j=1}^\infty$  is an orthonormal basis of  $L_2[0, 1]$  consisting of eigenfunctions of the integral operator from  $L_2[0, 1]$  to itself with kernel  $K(s, t)$ . We assume that  $\kappa_j$  are all positive and hence are able to order them in such a way that  $\kappa_1 \geq \kappa_2 \geq \dots$ ; moreover we assume that there are no ties in  $\kappa_j$ , i.e.,  $\kappa_1 > \kappa_2 > \dots > 0$ .”

The spectral expansion of  $\hat{K}(s, t)$  in page 8 is possible since the integral operator with kernel  $\hat{K}(s, t)$  is of finite rank, and at most  $n-1$  eigenvalues are positive. We just have to add (countably many) functions so that  $\{\hat{\phi}_j\}_{j=1}^\infty$  becomes an orthonormal basis of  $L_2[0, 1]$ .

2. Page 12 line 11: please change “in which case (A8) is satisfied with  $\gamma = 2$ ” to “in which case (A8) is satisfied with  $\gamma = 2$  when  $r \geq 1$  and  $\gamma = 1$  when  $r = 0$ ”.

3. Page 15: in the simulation design,  $\phi_j$ ’s should be such that  $\phi_1(t) \equiv 1$  and  $\phi_{j+1}(t) = 2^{1/2} \cos(j\pi t)$  for  $j \geq 1$ .

4. (This is not a correction): In page 5, we say that the space  $D[0, 1]$  equipped with the Skorohod metric is Polish. This should be interpreted as saying that  $D[0, 1]$  is Polish in the sense that  $D[0, 1]$  equipped the topology induced from the Skorohod metric is separable and completely metrizable. It is well known that the Skorohod metric does not make  $D[0, 1]$  complete, but there is a metric (sometimes called the Billingsley metric) which makes  $D[0, 1]$  complete and induces the same topology as the Skorohod metric.