

SCMS&SDS Seminar

ADAPTIVE POSTERIOR CONTRACTION

Speaker: Dr. Johannes Schmidt-Hieber

Leiden University, the Netherlands

Time: 10:00 a.m.-11:00 a.m., Tuesday, Dec. 27, 2016

Venue: Room 2201, East Guanghua Tower (Main), Fudan University

Abstract: We investigate the problem of deriving posterior contraction rates in nonparametric models under different loss functions (in particular sup-norm loss). We derive a lower bound on posterior coverages of shrinking neighborhoods. In a second part, feasible priors are constructed that lead to adaptive rates of contraction under L^2 or sup-norm loss and that moreover achieve our lower bound. This is joint work with Marc Hoffmann and Judith Rousseau (both Paris Dauphine).

An Introduction to the Speaker: Dr. Johannes Schmidt-Hieber is an assistant professor of the Mathematical Institute of Leiden University, the Netherlands. He obtained his PhD from both University of Goettingen and University of Bern in 2010 under the supervision of Axel Munk and Lutz Duembgen. He has since made significant contribution to the development of nonparametric Bayesian statistics and has published on *Annals of Statistics*, *Bernoulli*, *Annales de l'Institut Henri Poincaré*, *Electronic Journal of Statistics* and other journals.

