

PARAMETER ESTIMATION AND FILTERING FOR AUTOREGRESSIVE SYSTEMS UNDER STATIONARY NOISES

ALEXANDRE BROUSTE, CHUNHAO CAI AND MARINA KLEPTSYNA

The talk is devoted to the properties of the Maximum Likelihood Estimation of the drift parameter for the first order regression with stationary Gaussian noises. We exhibit the large sample asymptotical properties of the MLE for very mild conditions. We also discuss the explicit form of the solution of the filtering problem for a first order autoregressive signal observed through a linear channel when the noises are stationary Gaussian with the same structure.

UNIVERSITÉ DU MAINE, LABORATOIRE MANCEAU DE MATHÉMATIQUE, AV. OLIVIER MESSIAEN, 72085 LE MANS, CEDEX 9, FRANCE

E-mail address: alexandre.brouste@univ-lemans.fr

E-mail address: Chunhao.Cai.Etu@univ-lemans.fr

E-mail address: marina.kleptsyna@univ-lemans.fr