UCL Université catholique de Louvain

LSTAT2420

2016-2017

Non- and semi- parametric econometrics

5.0 credits	30.0 h	2q	This biannual course is taught on years 2014-2015, 2016-2017, ...

Teacher(s) :	Hafner Christian ;
Language :	Anglais
Place of the course	Louvain-la-Neuve
Aims :	*The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".*
Content :	The objective of this lecture is to provide an introduction to non- and semiparametric estimation methods that are often used in econometrics. For the classical kernel density and regression estimator, the asymptotic theory will be developed in some detail. For time series regression and semiparametric models, an emphasis will be given on applications through various examples. Beyond understanding the properties, students are expected to learn how to implement the methods. 1. Nonparametric estimation a. Kernel density estimator (properties, asymptotics, higher order kernels, density derivatives, multivariate densities, bandwidth selection) b. Nonparametric regression (local polynomial estimator, properties, asymptotics; time series) 2. Semiparametric estimation a. Semiparametric eciency bounds b. Linear regression with unknown error density c. Partially linear model d. Single index model e. Semiparametric models for time series f. Semiparametric models for panel data
Bibliography :	-- 'Li, Q. and S. Racine (2007), Nonparametric Econometrics, Princeton University Press. -- 'Pagan, A. and A. Ullah (1999), Nonparametric Econometrics, Cambridge University Press. -- 'Ruppert, D., M.P. Wand and R.J. Carroll (2003), Semiparametric Regression, Cambridge Series in Statistical and Probabilistic Mathematics, Cambridge University Press. -- 'Yatchew, A. (2003), Semiparametric regression for the applied econometrician, Cambridge University Press.
Faculty or entity in charge:	LSBA

Programmes / formations proposant cette unité d'enseignement (UE)

Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage
Master [120] in Statistics: General	STAT2M	5	-	