

Topics in Econometrics and Empirical Economics

Course title - Intitulé du cours	Topics in econometrics and empirical economics
Level / Semester - Niveau /semestre	M2 ETE / S2
School - Composante	Ecole d'Economie de Toulouse
Teacher - Enseignant responsable	DUBOIS Pierre
Other teacher(s) - Autre(s) enseignant(s)	MEDDAHI Nour
Other teacher(s) - Autre(s) enseignant(s)	POINAS François
Other teacher(s) - Autre(s) enseignant(s)	SINHA Shruti
Other teacher(s) - Autre(s) enseignant(s)	
Other teacher(s) - Autre(s) enseignant(s)	
Lecture Hours - Volume Horaire CM	30
TA Hours - Volume horaire TD	
TP Hours - Volume horaire TP	
Course Language - Langue du cours	Anglais
TA and/or TP Language - Langue des TD et/ou TP	Anglais

Teaching staff contacts - Coordonnées de l'équipe pédagogique :

Pierre Dubois : pierre.dubois@tse-fr.eu, T.687
 Nour Meddahi : nour.meddahi@tse-fr.eu, T.524
 François Poinas : francois.poinas@tse-fr.eu, T.509
 Shruti Sinha : shruti.sinha@tse-fr.eu, T.528

Office hours: By appointment.

Preferred means of interaction: After classes and during office hours.

Course's Objectives - Objectifs du cours :

The course consists of four independent parts, each consisting of 7 hours and 30 minutes. It will be taught by Pierre Dubois, Nour Meddahi, François Poinas, and Shruti Sinha.

- In part one, Nour Meddahi will cover issues related to Weak Identification in Linear and GMM models. He will consider the linear case (IV) and then non-linear GMM models. Issues related to large dimension models and models with many instruments will be discussed.
- In part two, Pierre Dubois will cover issues related to vertical relationships and advertising in empirical industrial organization. He will show how structural models of demand and supply can allow understand not only horizontal competition but also vertical relationships in markets such as food retailing, pharmaceuticals.
- In part three, François Poinas' lectures will focus on Dynamic Discrete Choice Models and Subjective Expectations. This section of the course will be an introduction to the estimation of

structural models in the fields of labor economics and economics of education. It will focus on dynamic discrete choice models and introduce how elicited data on subjective expectations can be used in such models to avoid assuming agents form rational expectations.

- In part four, Shruti Sinha will consider identification and estimation methods in static two-sided matching models. This is a relatively new and growing literature in econometrics. This part will consider (partial) identification challenges in transferable utility (TU) and non-transferable utility (NTU) models of matching. Within these sub-topics the econometric analysis will depend on whether it is a one-to-one matching model or a one-to-many matching model; and on our unit of observation (viz. individual or markets).

Grading system - Modalités d'évaluation :

- Midterm (on week 6), 1 hour, 50%. The midterm covers the material presented in parts 1 and 2.
- Final exam, 1 hours, 50%. The final exam covers the material presented in parts 3 and 4.

For each part, exam questions will preferably be related to a specific paper covered (not necessarily in depth) during the lectures. The paper is announced at the end of each part.

The midterm and final exam will be open book, with possible access to any document.

Bibliography/references - Bibliographie/références :

- For part 1:

Stock, J. and J. Wright (2000), GMM with Weak Identification, *Econometrica*, 68, 1055-1096.

Stock, J., J. Wright, and M. Yogo (2002), A Survey of Weak Instruments and Weak Identification in Generalized Method of Moments, *Journal of Business & Economic Statistics*, 20, 518-529.

Newey, W. and F. Windmeijer (2009), Generalized Method of Moments with Many Weak Moment Conditions, *Econometrica*, 77, 687-719.

- For part 2:

Bonnet Céline and Pierre Dubois (2010) "Inference on Vertical Contracts between Manufacturers and Retailers Allowing for Non Linear Pricing and Resale Price Maintenance", *RAND Journal of Economics*, Spring 2010, 41, 1, 139-164

Conlon Christopher T. and Julie Mortimer (2020) "Efficiency and Foreclosure Effects of Vertical Rebates: Empirical Evidence," Working Paper

Crawford Gregory S. , Robin S. Lee, Michael D. Whinston, Ali Yurukoglu (2018) "The Welfare Effects of Vertical Integration in Multichannel Television Markets" *Econometrica*: 86, 3, 891-954

Dubois Pierre and Laura Lasio (2018) "Identifying Industry Margins with Price Constraints: Structural Estimation on Pharmaceuticals" *American Economic Review*, 2018, 108, 12, 3685-3724

Dubois Pierre and Rachel Griffith and Martin O'Connell (2018) "The Effects of Banning Advertising in Junk Food Markets", *Review of Economic Studies*, 2018, 1, 1, 396-436

Gowrisankaran, G., A. Nevo, and R. Town (2015): "Mergers When Prices are Negotiated: Evidence from the Hospital Industry", *American Economic Review*, 105, 172—203

Grennan, M. (2013), "Price discrimination and bargaining: Empirical evidence from medical devices", *American Economic Review* 103(1), 145—177

Ho Kate and Robin Lee (2017) "Insurer Competition in Health Care Markets", March 2017, *Econometrica*, 85(2): 379-417

Villas-Boas, S. B. (2007) "Vertical Relationships between Manufacturers and Retailers: Inference with Limited Data," *Review of Economic Studies* , 74, 2, 625-652

- For part 3:

Keane, M.P., P.E. Todd, and K.I. Wolpin. 2011. "The Structural Estimation of Behavioral Models: Discrete Choice Dynamic Programming Methods and Applications." *Handbook of Labor Economics*, 4a:331–461, section 3.1

Belzil, C., and J. Hansen. 2002. "Unobserved Ability and the Return to Schooling." *Econometrica*, 70:2075–2091.

Keane, M.P., and K.I. Wolpin. 1997. "The Career Decisions of Young Men." *The Journal of Political Economy*, 105:473–522.

Manski, C.F. 2004. "Measuring Expectations." *Econometrica*, 72:1329–1376.

Arcidiacono, P., V.J. Hotz, and S. Kang. 2012. "Modeling college major choices using elicited measures of expectations and counterfactuals." *Journal of Econometrics*, 166:3–16.

- For part 4:

Agarwal, Nikhil, & Diamond, William. 2017. Latent Indices in Assortative Matching Models. *Quantitative Economics*, 8(3), 685-728.

Chiappori, Pierre-André, & Salanié, Bernard. 2016. The Econometrics of Matching Models. *Journal of Economic Literature*, 54(3), 832–862.

Choo, Eugene, & Siow, Aloysius. 2006. Who Marries Whom and Why. *Journal of Political Economy*, 114(1), 175–201.

Fox, Jeremy T. 2010. Identification in Matching Games. *Quantitative Economics*, 1(2), 203–54.

Galichon, Alfred, & Salanié, Bernard. 2015. Cupid's Invisible Hand: Social Surplus and Identification in Matching Models. Columbia University Discussion Paper.

Gualdani, Cristina and Sinha, Shruti. 2019. Partial Identification in Nonparametric One-to-One Matching Models. arXiv:1902.05610 [econ.EM]

Menzel, Konrad. 2015. Large Matching Markets as Two-Sided Demand Systems. *Econometrica*, 83(3), 897–941.

Sinha, Shruti. 2018. Identification in One-to-One Matching Models with Nonparametric Unobservables. TSE Working Paper, n. 18-897.

Session planning – Planification des séances :

Week	Date	Lecture #	Part	Teacher
1	January 4	1	1	Nour Meddahi
		2	1	Nour Meddahi
2	January 11	3	1	Nour Meddahi
		4	1	Nour Meddahi
3	January 18	5	1	Nour Meddahi
		6	2	Pierre Dubois
4	January 25	7	2	Pierre Dubois
		8	2	Pierre Dubois
5	February 1	9	2	Pierre Dubois
		10	2	Pierre Dubois
6	February 8	Midterm (on parts 1 and 2)		
	February 15	Winter break		
7	February 22	11	3	François Poinas
		12	3	François Poinas
8	March 1	13	3	François Poinas
		14	3	François Poinas
9	March 8	15	3	François Poinas
		16	4	Shruti Sinha
10	March 15	17	4	Shruti Sinha
		18	4	Shruti Sinha
11	March 22	19	4	Shruti Sinha
		20	4	Shruti Sinha
12	March 29	Exam (on parts 3 and 4)		

Distance learning – Enseignement à distance :

Distance learning can be provided when necessary by implementing, for example: / En cas de nécessité, un enseignement à distance sera assuré en mobilisant, par exemple :

- Interactive virtual classrooms / Classe en ligne interactive
- Recorded lectures (videos) / Vidéo enregistrée de la présentation du matériel pédagogique
- MCQ tests and other online exercises and assignments / QCM et exercices en ligne
- Remote (online) tutorials (classes) / TP/TD à distance

- Chatrooms / Forums