Jean-François Mertens
1946 - 2012

Jean-François was a close friend. Friendship comes out from many sources, in particular, sharing similar interests and education, leading to similar views about what is valuable or detestable. Also, friendship grows when doing things together. At several points in our lives, we shared time with engaging not only in activities of a scientific nature, but also hiking, traveling and, more generally, enjoying life. This means a lot of memories for both of us. We wanted to start by sharing one of Jean’s memories; other friends will share theirs later in this issue.

«If I were to point to the most telling memory I keep from this period, it is certainly when we wrote the only joint paper we did together. Let me briefly tell you the story of this experience. I was writing a paper on my own. In the process, I came up against a seemingly incredibly difficult math problem, which needed to be solved before pursuing the main argument of the paper. Knowing his fantastic talent for abstraction, I went to J-F’s office asking for his help, and he told me that the problem was beautiful and needed to be solved. When time came for dinner, we went to my home, shared a meal, and settled down to tackle the problem at 9 p.m. At 11 p.m, I went to the kitchen to prepare the first coffee of a long subsequent sequence of other coffees! While I was occupied in the kitchen, J-F was building sequences of partitions converging to the adequate partition of the (0,1)-interval in order to complete the argument needed to finish the paper. As the night drew closer and closer to sunrise, J-F was more and more excited by the fact that he was on the verge of finding the solution to the problem. On my side, I was more and more excited by the idea of sleeping soon in my bed! Finally, at 5 a.m the next day, J-F declared that the problem was solved and we could stop! Do you know what Jean-François then said? “Now, we go downtown to celebrate this beautiful conclusion!” The paper was published two years later in *Econometrica.*»

To both of us Jean-François was a mystery. Despite sparkling eyes and a wonderful smile, he remained guarded. He was a man full of decency and he hated affective demonstrations. He believed that nothing could justify crying or complaining about one’s own destiny: in any case he was always looking for the good side of events. He was full of audacity and sometimes he provoked events that were not positive for him, seeming to simply want to test his resistance to the harshness of life. It is a great loss to know that he will no longer be around us.

Claude d’Aspremont
& Jean Gabszewicz

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They talk about Jean-François

I first met Jean-François Mertens when I was a graduate student. He was already a well-known scholar, and I was amazed by the genuine curiosity he showed in my research. After finishing my Ph.D, my family and I made an overnight stop in Brussels on our way to the US, and Mertens invited us to a chic restaurant. Later, he and I spent most of that night in the hotel lobby, with Mertens inquiring in great detail about my thesis. Ever since then, we have wine, dined, beached, and traveled together, which has been a vibrant backdrop to a significant and exhilarating intellectual collaboration that I am fortunate to have had. Beyond his deep insight in mathematics and economics, Mertens was well-versed in many other areas.

We have received a lot of moving condolences and among them...

[...] Those who had a chance to benefit from discussions with him unanimously recognize that he was exceptional. It is difficult to find words to describe a person with such intellectual capabilities. His depth and his strength were sometimes intimidating but five minutes of discussion with him could save you hours of work. He was open to discussions with colleagues and students and curious about everything. This is indeed a deep loss for the profession.

Michel Le Breton, Toulouse School of Economics

[...] J’ai appris de lui et de quelques autres qui ont fréquenté le CORE dans la fin des années 90 ce que c’est qu’être chercheur et comment un authentique savant raisonne et travaille. Je retiendrai aussi ses grands sourires qui montraient l’appétit d’une vie qu’il a quitté trop tôt.

Frédéric Jouneau-Sion, Université de Lille 3

His phenomenal knowledge of history and geography would strike me whenever we traveled in Israel together; he knew more about the country and its history than many well-educated Israelis! Once we went together with his daughter Diane to the swamps behind the dike on the border of Belgium and the Netherlands. Mertens explained the risks: 1) as the tide comes in, the waters seem to advance toward the dike at low speed, but eventually they advance at high speed, 2) it is forbidden. Mertens made us wade deep in the swamps, surrounded by low levels of water, until he finally gave the signal to run as fast as we could back to the dike. Diane and Mertens did this very professionally, while I returned soaking wet and covered in mud. With respect to the second risk, Mertens explained that, since we were on the border, it shouldn’t worry us: if the Belgian guards approach, we would run to the Dutch side, and vice versa. I will sorely miss him.

Abraham Neyman

It is so difficult to comprehend the departure of JFM. From the moment of our first meeting in Jerusalem more than thirty years ago to the last one in Brussels I was blessed to enjoy his friendship, advice and presence. He saw the things that nobody else did. A departure of a giant and a true friend.

Shlomo Weber, Southern Methodist University

[...] Au nom de l’ensemble des membres de l’AMSE, je voulais vous faire part de l’immense considération que nous avions tous pour Jean-François et son oeuvre scientifique.

Alain Trannoy, EHESS, GREGAM-IDEP

[...] I have been extremely fortunate to have had Jean-François as my teacher and guru - he has provided an enormous support and guidance.

Indrajit Ray, University of Birmingham
Jean-François made significant contributions to different fields, mainly but not exclusively to game theory. He also contributed to the theory of probability, general equilibrium and social choice. His first publications date back to the late sixties and early seventies. They were concerned with stochastic processes and martingales, building on his Master’s thesis (offering an original solution to an optimal stopping problem) and doctoral dissertation. Other contributions to mathematics came out regularly, mostly as by-products of his on-going research in game theory. His contributions are characterized by their depth, both mathematically and conceptually. Here are a few known and remarkable results:

- the conditions under which the core equivalence theorem remains valid in presence of atoms (with Jean Gabszewicz, *Econometrica*, 1971);
- the existence of a limiting value for infinitely repeated two-person zero-sum games with incomplete information on both sides, a result to which the "$M_Z$" operator is associated (with Shmuel Zamir, *IJGT*, 1971);
- the existence of an undiscounted, uniform and limited average value for 2-person zero-sum stochastic games (with Abraham Neyman, *IJGT*, 1981);
- the extension of the Aumann-Shapley "diagonal formula" in non-atomic cooperative games to discontinuous games (*MOR*, 1980) and the existence of a value – and its diagonal formula – on a large space of games that include all non-differentiable market games (*IJGT*, 1988);
- the formalization of Harsanyi’s infinite hierarchies of beliefs through the construction of a universal space of types where each subspace can be approximated by a finite subspace (with Shmuel Zamir, *IJGT*, 1985);
- the most general existence theorem for equilibria of discounted stochastic games, allowing for uncountable state spaces (with T. Parthasarathy, 1991);
- the most elaborate refinement of the Nash equilibrium, known as "Mertens Stability" (*MOR*, 1989 and 1990), based on an earlier joint paper with Elon Kohlberg (*Econometrica*, 1986);
- the introduction of "Relative Utilitarianism" through axioms defined on vNM preferences, thereby avoiding interpersonal utility comparison (with Amrita Dhillon, *Econometrica*, 1999), a criterion later used to define the discount rate for intergenerational cost-benefit analysis (with Anna Rubinchik, *Macroeconomic Dynamics*, 2012).

Worth mentioning, the "Mertens-Sorin-Zamir triptyque" on repeated games, that appeared as successive CORE Discussion Papers in 1994, will eventually be published by Cambridge University Press.

A comprehensive bibliography (and more) is available on CORE’s webpage. There is also an excellent article devoted to Jean-François on *Wikipedia*.

Jean-François was an inspiring advisor. Anybody would be in awe of his mathematical skills. I was even more impressed by the breadth and depth of his knowledge of economic theory. Talking with him about new results or new ideas, I always had the feeling that he had already been reflecting upon them, in one of his long evenings at CORE.

For me, the amazing papers that he published were just the tip of the iceberg. Being advised by Jean-François always gave me the confidence that I was going in the right direction, for I knew he could separate what was fundamental from what was superficial. Today other memories also come fondly to mind: his offering to share ideas over dinner while I was just a new PhD student, him so deep in his research that he would forget about coming to class to teach, visiting downtown Sao Paulo with a couple of colleagues and friends during a conference. Jean-François has inspired numerous students, and we are all grateful to him for his teaching, and thankful to have known him.
Forthcoming Scientific Events

EC$^2$ Conference
Maastricht, December 14-15, 2012

The 2012 EC-squared Conference will be organized at the University of Maastricht. It will be the 23rd meeting. The topic and location of the meeting changes yearly. Since 2001, Luc Bauwens has been in charge of ensuring the ongoing success of the series. In Maastricht, the topic is "Hypothesis Testing" and the local organizer is Jean-Pierre Urbain. Jean-Marie Dufour, Tim Vogelsang, Michael Wolff and Ulrich Muller are the invited speakers. Other speakers are selected by a scientific committee on the basis of submitted papers.


Past Scientific Events

Multidimensional Poverty and Inequality Measurement
Louvain-la-Neuve, May 29-30, 2012

This two-day conference gathered almost fifty attendees interested in the measurement of multidimensional poverty and inequality. The event was organized by CORE and supported by François Maniquet’s ERC Advanced Grant. The classical measure of poverty is based on the comparison between an individual’s income and a certain threshold. The underlying assumption is that income reflects well-being. However, this assumption has been challenged, calling for a measure that includes different dimensions of people’s lives, such as health, education or housing. The conference consisted of high caliber presentations and relaxed discussions around coffee, at lunch or during dinner. As the audience brought together both empirical and theoretical approaches to the issue of multidimensional poverty, the meeting provided a great opportunity to engage in fruitful discussions on both elements of the measurement of poverty and the link between the two. The full program can be found at http://sites.uclouvain.be/poresp/publications/Progr_ConferencePovertyMeasurement.pdf
The “Interuniversity Attraction Poles” (IAP) Programme aims to provide support for teams of excellence in basic research that belong to Belgium’s various (linguistic) Communities. These teams work as part of a network in order to increase their joint contribution to general scientific advances and, where applicable, to international scientific networks.

The overall goal of the research project is to construct new ways of measuring and modelling risks in systems with intricate dependence structures, moving towards model assumptions that better reflect real life complexity. It is well known that modelling dependence between risks is a central issue for decision making in risky environments. Optimal decisions exist when the dependence scheme is simple, which happens under strong assumptions on the underlying data generating process, such as Gaussianity, weak dependence, and stationarity. Such assumptions, however, are rarely justified in modern risk management. Features of the data to be taken into account include non-elliptical dependence, heavy tails, long memory, and nonstationarity stemming from structural breaks or time-varying cross-covariances. Moreover, the ease of data collection nowadays makes it possible to consider datasets with a large number of variables or data measured nearly continuously over time or in space. This situation is typical for actuarial and financial risks and it particularly concerns questions related to risk diversification or institutional solvability.

The project will undertake fundamental research on probabilistic, statistical and econometric models of dependence. Particular attention will be paid to the behaviour of such systems in periods of distress, that is, upon the arrival of shocks, after structural breaks, or when comovements between risk factors are higher than usual. At CORE the project will involve the research team in econometric theory (Luc Bauwens, Christian Hafner, Jan Johannes, Sébastien Van Bellegem, Yukai Yang). From the Institute of Statistics, Michel Denuit, Johan Segers and Rainer von Sachs are participating in this research.


**New Projects**

**ARC project on «Stochastic Modelling of Dependence: Systems under stress»**

The Académie Louvain has provided a grant to support this 5-year research project in econometric theory and statistical mathematics, managed by a team of researchers from CORE and the Institute of Statistics.

The overall goal of the research project is to construct new ways of measuring and modelling risks in systems with intricate dependence structures, moving towards model assumptions that better reflect real life complexity. It is well known that modelling dependence between risks is a central issue for decision making in risky environments. Optimal decisions exist when the dependence scheme is simple, which happens under strong assumptions on the underlying data generating process, such as Gaussianity, weak dependence, and stationarity. Such assumptions, however, are rarely justified in modern risk management. Features of the data to be taken into account include non-elliptical dependence, heavy tails, long memory, and nonstationarity stemming from structural breaks or time-varying cross-covariances. Moreover, the ease of data collection nowadays makes it possible to consider datasets with a large number of variables or data measured nearly continuously over time or in space. This situation is typical for actuarial and financial risks and it particularly concerns questions related to risk diversification or institutional solvability.

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**PAI project on «Combinatorial Optimization: Metaheuristics & Exact Methods»**

The “Interuniversity Attraction Poles” (IAP) Programme aims to provide support for teams of excellence in basic research that belong to Belgium’s various (linguistic) Communities. These teams work as part of a network in order to increase their joint contribution to general scientific advances and, where applicable, to international scientific networks. CORE will be financed as a member of COMEX, a new network in Phase VII (2012-2017). COMEX gathers together eight research teams around the theme “Combinatorial Optimization: Metaheuristics and EXact methods” (COMEX). The network will be coordinated by Bernard Fortz from ULB, and also includes senior scientists: F. Spieksma, P. De Causmaecker (KULeuven); Y. Crama (U.Lg); G. Janssens (U. Hasselt); T. Stützle (ULB) and K. Sörensen (U. Antwerp).

The research teams are highly complementary with respect to their main fields of expertise. The specificities of the teams arise from the different models they use (linear vs. non-linear, continuous vs. discrete variables, deterministic vs. stochastic, single objective vs. multi-objective ...), with respect to the algorithms they design, develop and deploy to solve these problems (the teams are experts on either exact methods or heuristic methods), and with respect to the different domains of application (supply chain management, telecommunications, transport, economics, bioinformatics, ...).

The CORE team is coordinated by M. Van Vyve and includes L.A. Wolsey and P. Chevalier and (currently) one visitor, two post-docs and seven Ph.D. students. Within the project the team will bring its expertise in integer programming, polyhedral methods and algorithmics, and its experience in dealing with applications from production planning, operations management and economics. At CORE, COMEX will finance 2 PhD students, 2 one-year postdocs and some administrative support during the next five years.
During the Young Researchers’ Day (30/05/2012), the 2012 ICTEAM Thesis Award was awarded to Nicolas Gillis, for his thesis entitled “Nonnegative matrix factorization: complexity, algorithms and applications”, supervised by Prof. François Glineur. This award, which consists of an amount of 2000€, is granted yearly to the best doctoral thesis that was defended within the ICTEAM research institute (Information and Communication Technologies, Electronics and Applied Mathematics). Nicolas Gillis’s research focused on a recent data analysis technique called ”nonnegative matrix factorization”, with contributions ranging from theoretical aspects (complexity analysis) and algorithmic developments (faster optimization techniques) to applications to text and image analysis (such as segmentation of satellite hyperspectral images). Unfortunately, Nicolas Gillis could not attend the prize presentation since he has a post-doctoral position at Waterloo University (Canada).

The SWIFT index is SWIFT

by Luc Bauwens

The SWIFT index is a new economic indicator of economic activity. It is an early indicator that can be used to forecast GDP growth at the global, regional, and national levels. It is a fact-based indicator, contrary to most indicators that are sentiment based.

SWIFT (Society for Worldwide Interbank Financial Telecommunication) is a cooperative of more than 10,000 financial institutions and corporations in 212 countries through which the financial world conducts its business operations with speed and safety. Every day, millions of standardized, confidential, financial messages transit via SWIFT. The flow of some of these messages, such as the customer payment (MT103) messages, is significantly correlated with the level of economic activity, and forms the basis of the SWIFT index. These flows are fact based, as they result from actual transactions.

The role of CORE’s econometrics team, led by Luc Bauwens, with the help of Jeroen Rombouts, in the development of the SWIFT index has been to validate the index as a basis for forecasting GDP growth. To this end, the team has developed mixed frequency (monthly-quarterly) econometric models. With such models, the GDP growth rate for a given quarter in a given country (or group) is forecasted using GDP growth of the previous quarter plus the growth of the (seasonally adjusted) corresponding SWIFT index of the months of the quarter to be predicted. The forecasts are produced using the most recently available “in-quarter” information, in addition to lagged GDP growth information from the previous quarter. The graph and data below is the information sheet published by SWIFT in July 2012. On the graph, the red curve shows the evolution of the GDP annual growth rate for the OECD group of countries. The last red value indicates that the growth rate between the end of the first quarter of 2011 and 2012 is estimated by the OECD to be 1.8 percent. The dashed curve shows the forecasts of the CORE-SWIFT model and clearly indicates that a growth slowdown is expected for the second and third quarters of 2012 (1.4 and 1.1 percent). Notice that the OECD estimate of the growth rate for Q2 of 2012 will be available in the last days of August. Information is available at http://www.swift.com/swiftindex.

Anyone may register to get free access to the currently available index data history and corresponding forecasts of GDP growth for the world and OECD level aggregates. SWIFT plans to extend the index and forecasts to other regions and countries in the next few months.
New Post-doc fellows

Vladimir Shikhman obtained his diploma in mathematics and economics in 2006 at RWTH Aachen University, Germany. He conducted his undergraduate studies in mathematics and computer science at Chelyabinsk State Pedagogical University, Russia. In 2011, he finished his PhD at RWTH Aachen University, Germany under the supervision of Hubertus Th. Jongen in optimization theory. His research interest is on nonsmooth structures arising in the context of optimization. Bilevel programming, generalized Nash equilibria problems, nonlinear complementarity problems and generalized semi-infinite programming are the present focus of his work. He is interested principally in the topological issues, such as the structure of the feasible set, critical point theory in the sense of Morse, strong stability of minimizers and parametric aspects. Transversality theory and the singularity theory come into play and are extensively used. Moreover, nonsmooth versions of implicit function theorems and of Sard’s lemma are examined within the scope of nonsmooth analysis. Vladimir Shikhman conducted monthly post-doc research visits to Technion University, Israel and to the Center for Mathematical Modeling, Chile. In 2012, his book "Topological Aspects of Nonsmooth Optimization" was published by Springer. At CORE Vladimir Shikhman intends to focus on algorithmic issues in nonsmooth optimization, especially on the obstacles arising from the unavoidable appearance of singularities.

Claudio Telha received a B.S. degree Computer Science from University of Chile in 2006 and B.S. and M.S. degrees in Applied Math from University of Chile in 2005 and 2007. In February 2012, he obtained a PhD. degree in Operations Research at the Massachusetts Institute of Technology (MIT), under the supervision of Andres S. Schulz. Before joining CORE, he had a brief postdoctoral stay at the University of Chile. He has broad interest in theoretical aspects of operations research, algorithms and complexity, and combinatorial optimization. In his thesis, he focused on the problem of finding efficient algorithms for certain geometric problems. He also studied the complexity of certain inventory management problems that involve the synchronization of periodic activities. At CORE, he will be working mainly on the design of on-line algorithms for Combinatorial Optimization problems.

Yukai Yang obtained the PhD degree in Economics with a dissertation entitled "Modelling Nonlinear Vector Economic Time Series" from CReATES, Department of Economics and Business, Aarhus University in 2012, under the supervision of Prof. Timo Teräsvirta. He also holds a cand.polit with a dissertation entitled "Bayesian Analysis of the Cointegrated VAR model" from the University of Copenhagen, under the supervision of Prof. Søren Johansen, and a BSc in Computer Science from Shanghai Jiao Tong University. He started to work as a Post-doctoral researcher at CORE in April 2012. His research interests include nonlinear time series econometrics, smooth transition models, high-dimensional analysis, cointegration, long memory, financial econometrics, Bayesian statistics, MCMC and related computational methods. During his stay at CORE, he has joined the CLIPPER project and is collaborating with Prof. Sébastien Van Bellegem and Prof. Mathieu Van Vyve. He also works with Prof. Luc Bauwens on nonlinear vector time series. In addition to continuing his research, he is supervising graduate students, and will teach the course "Advanced Econometrics II".
**Sophie Béreau** is Assistant Professor of Finance at the Université catholique de Louvain - Louvain School of Management. She completed a PhD in Economics at the Université Paris Ouest and the Macroeconomics unit from CREST research center, for which she was awarded the Fondation Banque de France Prize for the Best PhD in Monetary, Financial and Banking Economics in 2011. Her research focuses on exchange rate and asset price dynamics, financial integration process and its macro implications, systemic risk modelling, and behavioural finance. To address those issues, she relies on financial econometrics and more specifically on nonlinear modelling both in time series and macro panel data contexts. As a research fellow at CORE, she will be part of the Econometrics group which brings together all potential collaborators in Econometrics coming from various departments and faculties to exchange ideas and foster collaborations in the different fields of Econometrics. [https://sites.google.com/site/sophiebereau/](https://sites.google.com/site/sophiebereau/)

**Koen Decancq** is Assistant Professor at the Herman Deleeck Centre for Social Policy at the University of Antwerp. His current research interests focus on (1) the measurement of multidimensional inequality and poverty; (2) setting weights in multidimensional indices of well-being; (3) comparisons of correlation structures between multivariate distributions using the copula function; (4) the driving forces of changing income distributions such as changing assortativeness between spouses’ earnings and demographic changes and (5) the evaluation of taxation and social policy using microsimulation techniques. In particular, he’s interested in how to measure inequality and poverty in a multidimensional framework when individuals have different preferences (in line with the research of the PORESP group at CORE).

**Claire Dujardin** is Researcher at IWEPS (Institut Wallon d’Evaluation, de Prospective et de Statistiques), a scientific public institution which is charged with the production and diffusion of statistics for Wallonia, the realization and coordination of applied research in the fields of economics, social and political sciences and geography, and strategic counselling to the Walloon Government. Claire holds a PhD in Geography from UCL (2006) and, after 4 years spent at CORE as a FNRS Postdoctoral Researcher, she joined IWEPS in March 2012. Her current research interests stand at the crossroads between geography, economics and social sciences and focus on various themes such as social and spatial inequalities in health, housing, education (more particularly education-to-work transitions) and in the evaluation of public policies. She’s particularly interested in the interactions between individuals and their residential and social environment (neighborhood effects). Her approach is essentially empirical, with particular interest in identification issues, and expertise in spatial analysis and econometrics.

**Mikael Petitjean** is Associate Professor of Finance at the Louvain School of Management. He teaches ethics in finance, equity and fixed income, portfolio management, and econometrics at UCL Mons. He is also adjunct professor of finance at IESEG School of Management where he teaches financial modeling. He completed a Ph.D. in management science from the University of Namur (FUNDP) in 2006. Before completing his Ph.D. thesis, he gained experience in the banking sector as a fixed-income analyst and trader. He has been granted two globally-recognized professional designations: the Financial Risk Manager (FRM) certification delivered by the Global Association of Risk Professionals and the Chartered Alternative Investment Analyst (CAIA) certification delivered by the CAIA Association. Over the last few years, he has been working on issues related to volatility, liquidity, ethics and financial regulation. In May 2012, together with two co-authors, he was awarded the Prize for the best 2010 paper published in Finance. For more information: [www.mpetitjean.com](http://www.mpetitjean.com).

**Jan Johannes** is Assistant Professor of mathematical statistics at Université catholique de Louvain - Institut de statistique, biostatistique et sciences actuarielles. He completed a Ph.D. in mathematics from Humboldt-Universität zu Berlin in 2002. After one year as postdoctoral fellow at GREMAQ and IDEI, Université 1 in Toulouse, he spent 6 years as assistant professor at Institut für Angewandte Mathematik, Ruprecht-Karls Universität Heidelberg. The focus of his research is nonparametric and semiparametric inference in the context of ill-posed statistical inverse problems and spatio-temporal models with a particular emphasis on minimax-optimality and adaptation. One of his special interests is nonparametric instrumental regression which is widely used to analyze economic relationships in the presence of endogeneity. The study of nonparametric inference as well as hypothesis testing and estimation leads naturally to the analysis of statistically ill-posed inverse problems. His research takes both the frequentist point of view as well as nonparametric Bayesian approaches. His research typically assumes independent and identically distributed observations, however; spatio-temporal dependence is one of his particular interests. As a research fellow at CORE, he will be part of the Econometrics group.
Focus on our new Research Associate

**Dimitri Paolini** is Associate Professor at DiSEA-Università di Sassari (Italy). Dimitri holds a PhD in Economics from UCL (2001) and, after a few years spent at CREPP-Liège, as a Postdoctoral Researcher, and at Università degli Studi “G. D’Annunzio” as an Assistant Professor, he joined Università di Sassari in 2005. His current research interests are: microeconomics, education/labour economics, and industrial organization. For more information: https://sites.google.com/site/dimitripaolini/

CORE welcomes 3 PhD students from the European Doctorate in Economics - Erasmus Mundus (EDEEM) Program

**Aditi Dimri** completed her Master’s in Economics in 2009 at Bielefeld University, Germany and Université Paris 1 Sorbonne under the Erasmus Mundus Scholarship Program. Since then she has been working in India on various development and policy issues. Her general research interests are in the field of development economics along with experimental and behavioural economics. In September 2012, she will be starting her PhD as an EDE-EM (European Doctorate in Economics Erasmus Mundus) Fellow under the joint supervision of Prof. François Maniquet (CORE), and Prof. François Bourguignon (EHESS, Paris). At CORE, she will work on the theoretical and empirical aspects of multidimensional poverty measurement with a special focus on using agents’ preferences, and subsequently investigating any policy or other implications.

**Manuel Förster** graduated from Bielefeld University, Germany, in 2011 (Mathematics of Economics). He joined the EDE-EM (European Doctorate in Economics – Erasmus Mundus) program in September 2011 and will spend two years of his Ph.D. programme at University of Paris 1 – Panthéon-Sorbonne, France, and one year at CORE.

Manuel’s main fields of interest are Game Theory and Network Theory. He has started his work on Models of Influence in Social Networks in Paris under the supervision of Agnieszka Rusinowska and Michel Grabisch. For the second year, he joined CORE in September and is working with Vincent Vannetelbosch (CORE). He plans to continue his work on Models of Influence with the focus on dynamic aspects of influence.

**Andrew Pua** has just finished his first year of PhD studies at the Universiteit van Amsterdam. While studying the incidental parameter problem, he has been working on the analytical computation of projected scores for commonly applied panel data models. Since in real-life applications, one is always working with misspecified models, these scores are helpful in determining how much consistency, efficiency and test performance are affected by certain types of misspecifications.

At CORE, he plans to continue this line of work by using flexible functional forms to capture the dependence of initial conditions on unobserved heterogeneity. He also plans to work on estimating more realistic panel data models that allow for full heterogeneity in the intercept and the slope parameters without resorting to a random coefficient panel data model. This project will build on recent work on the statistics of high-dimensional data.
## Agenda from September to December

### Econometrics

**September 24, 2012** *(joint with Economic Theory Seminar)*
Marcel FAFCHAMPS, Oxford University  
Networks and manufacturing firms in Africa: Initial results from a randomised experiment.

**October 1, 2012** *(joint with Trade & Economic Geography Seminar)*
Julie LE GALLO, Université de Franche Comté  
Exploring scan methods to test spatial dependence with an application to housing prices in Madrid

**October 8, 2012** *(joint with Economic Theory Seminar)*
Francesco LIPPI, University of Sassari & EIEF

**October 18, 2012** *(joint ECORE-KUL Seminar)*
Torben ANDERSEN, Kellogg Northwestern University

**October 22, 2012** *(joint CORE-ISBA Seminar)*
Christophe ANDRIEUX, Bristol University

**November 5, 2012** *(joint with LSM Finance)*
Remco C.J. ZWINKELS, Erasmus School of Economics

**November 12, 2012**
Clément DE CHAISEMARTIN, Paris School of Economics  
Late with defiers. Late is everywhere?

**November 19, 2012**  
Annick LARUELLE, Ikerbasque  
Games and perceptions.

**November 26, 2012**
TBA

**December 3, 2012**
Yuga TAKAHASHI, University of Mannheim  

### Economic Theory

**September 24, 2012** *(joint with Econometrics Seminar)*
Marcel FAFCHAMPS, Oxford University  
Networks and manufacturing firms in Africa: Initial results from a randomised experiment.

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Games and perceptions.

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Francesco LIPPI, University of Sassari & EIEF

**November 5, 2012**
Nagore IRIBERRI, Universitat Pompeu Fabra

**December 10, 2012** *(joint with Trade & Economic Geography Seminar)*
Jens SUEDEKUM, University of Duisburg-Essen

### Mathematical Programming

**October 2, 2012**
James SAUNDERSON, MIT  
Polynomial-sized semidefinite representations of derivative relaxations of spectrahedral cones.

**October 9, 2012**
Hans-Jacob LÜTHI, ETH Zurich  
Optimization at work: market design for emission trading schemes.

**October 23, 2012**
Victor PODINOVSKI, University of Warwick

### Trade & Economic Geography

**October 1, 2012** *(joint with Econometrics Seminar)*
Julie LE GALLO, Université de Franche Comté  
Exploring scan methods to test spatial dependence with an application to housing prices in Madrid

**December 10, 2012** *(joint with Economic Theory Seminar)*
Jens SUEDEKUM, University of Duisburg-Essen

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They visited us for a few days or a few weeks between May and August 2012:

- Peter Addo, Université Paris 1  
- Jorge Amaya, Universidad de Chile  
- Vardan Bagdasaryan, Università Cattolica di Milano  
- Sudipto Bhattacharya, London School of Economics  
- Olivier Donni, Université Cergy Pontoise  
- Christian Gollier, Toulouse School of Economics  
- Jayanth Jayaraman, University of South Carolina  
- Marie-Louise Leroux, Université du Québec  
- Philippe Mongin, CNRS, HEC Paris  
- Juan Moreno-Ternero, Universidad Pablo de Olavide  
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- Margarita Samartin, Universitat Carlos III de Madrid  
- Maria Jose Verdecho, Polytechnic University of Valencia  
- Cindy Wang, Beijing Normal University  
- Ying Wei, Jinan University
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Discussion Papers

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<td>Game theory</td>
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<td>Dehez, P. Incomplete-markets economies: the seminal work of Diamond, Drèze and Radner.</td>
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<td>Trade, transport &amp; economic geography</td>
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Books

Gestion publique - Théorie et pratique
by Jean Hindriks
(Preface: Christian Gollier)
de boeck, 2012

This book is about public management from an economic perspective. The objective is to show that efficiency and transparency should be core values in the public sector. The key message is that rather than cutbacks we should promote quality in the public sector. The central tenet is that public management is deeply different from private management. The book describes the principles and difficulties that govern public management. The theoretical part covers issues such as changing incentives, measuring public performance, promoting public efficiency and public accountability, developing specific forms of competition and coordination. The practical part includes case studies dealing with schools, higher education, pensions, federalism and local governments.
Publications

Books

**Intermediate Public Economics**  
*by Jean Hindriks and Gareth D. Myles*  
Shangai, Truth & Wisdom Press, 2011

A comprehensive and accessible text that covers the core topics of public economics as well as recent developments in political economy, information, games, multiple jurisdictions, and intertemporal issues.

**Equality of Opportunity**  
*by Marc Fleurbaey and François Maniquet*  
World Scientific, 2012

This book is a collection of articles written by the two authors on the topic of equality of opportunity. The authors propose defining "equality of opportunity" as the combination of the ethical principles of compensation and responsibility. The principle of compensation requires that external resources be used to compensate low-skilled agents. The principle of responsibility requires that external resources be allocated without regard to inequalities due to differences in preferences. The articles present different ways of combining the two principles in different economic contexts.

The book contains a foreword by Eric S. Maskin, Nobel Prize Laureate.

**Economic Geography and the Unequal Development of Regions**  
*by Jean-Claude Prager and Jacques-François Thisse*  
Routledge, 2012

Behind the mystery of economic growth stands another mystery: why do some places fare better than others? Casual evidence shows that sizable differences exist at very different spatial scales (countries, regions and cities). This book aims to discuss the main economic reasons for the existence of peaks and troughs in the spatial distribution of wealth and people, with a special emphasis on the role of large cities and regional agglomerations in the process of economic development.
On the 26th of May 2012, CORE PhD student Claudia Hupkaü got married to Spaniard Toni Roldán in the Catalan Emporda, close to the Costa Brava. Many fellow CORE members joined her to celebrate this happy day. We wish them all the best for their marriage!

From left to right:
Vladislav Nora, Ines Valente Russinho, Salome Gvetadze and her friend Tjitze, Mikel Bedayo and his friend Marina, François Maniquet, Claudia Hupkaü, Abdelrahaman Aly, Margherita Negri, Marion Leturcq and Stéphane Bouché.

Congratulations to Jean Hindriks & Ewa for their wedding on July 7, 2012.

Welcome to Joaquim born on May 22, 2012

happy parents: Francisco Santana Ferra & Laetitia

Parfois, dans la vie, il faut savoir lutter, non seulement sans peur mais aussi sans espoir.

Nella vita talvolta è necessario sapere lottare, non solo senza paura, ma anche senza speranza.

Interdum in vita pugnare necesse est non solum sine pavor sed etiam sine spe.

Sometimes in life, you have to know how to fight, not only fearlessly but also without much hope.

Sandro Pertini
CORE is offering research fellowships in economics, operations research and econometrics, starting September 1st, 2013. More information will be available soon on the CORE’s website. Please check it regularly: http://www.uclouvain.be/en-16851.html

The CORE Newsletter is sent every 3 or 4 months. If you want to be removed from the mailing list, just send an email to Sylvie.mauroy@uclouvain.be

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