CURRICULUM VITAE

June 2023

Last name	**BARTHÉLÉMY**
First name	**Fabrice**
Birth date	17th April 1970
Nationality	French
Civil status	Married (two children)

Academic Positions

2013 –	**Full professor** (Professeur), Université de Versailles St-Quentin-en-Yvelines, Paris-Saclay UMI-SOURCE (Unité Mixte Internationale Soutenabilité et Résilience) Université de Versailles Saint-Quentin-en-Yvelines
1997 – 2013	**Associate Professor** (Maître de Conférences), Université de Cergy-Pontoise, THEMA
1996 – 1997	**Assistant Professor** (ATER), Université de Cergy-Pontoise, THEMA
1993 – 1996	**Doctoral Research Fellow** (Allocataire de recherche), Université d'Aix-Marseille 2, GREQAM

Research Affiliations

2013 –	**CEMOTEV** research center, Université de Versailles Saint-Quentin-en-Yvelines
	THEMA research center, associate member, Université de Cergy-Pontoise `https://thema.u-cergy.fr/membres/membres-associes/barthelemy`

Education

2013, April	**Ranked first** at the **Full Professor** French National Competitive Exam (in economy). (*Concours d'agrégation pour les professeurs des universités*, in French)
2009, Nov.	**Post-doctoral degree**, French degree required to advise doctoral students. (*Habilitation à diriger des recherches*, in French)
1997, January	**PhD in Economy**: "Stationarity and persistence: macroeconomic times series decomposition in trend and cycle", GREQAM, supervized by Michel Lubrano, research director at the CNRS.
1993, June	**Teacher in Economy** at the secondary school. (Validation of the French National Competitive Exam after one year of practicing)
1992, Sept.	**Postgraduate Diploma** in "Mathematical Economics and Econometrics", GREQAM. (DEA in French, fifth year of university studies).

Courses Taught

Econometrics Methods applied to Finance: Graduate Level (Master 2), 1999 – 2013

Econometrics: Undergraduate III
Graduate Level (Master 2 and Master 1)

Data Mining: Graduate Level (Master 1 and Master 2)
Bachelor Cycle II and III – ESSEC Business School, 2001 – 2010

Statistical Analysis: Undergraduate III
Bachelor Cycle I – ESSEC Business School, 2000 – 2007 and 2018 –
Bachelor Cycle II – ESSEC Business School, 2018 – , in English
Mastère Spécialisé ® Techniques Financières, ESSEC Business School, 2018 – , in English
Bachelor Cycle I – ESCP-Europe Business School, 1999 – 2010

Macroeconomics: Undergraduate I and II

Microeconomics: Undergraduate I

Gauss Sotfware: Graduate Level (Master 2)

Administrative Positions

At the University of Versailles St-Quentin

- Director of the L3 Undergraduate Program in Economy (2014 –).
- Elected member of the Social Sciences UFR Council (2013 –).
- In charge of the relationships between the CEMOTEV Research Center and the "Paris-Saclay" Groups of Research (2014 – 2018).

At the University of Cergy-Pontoise

- Director of the Undergraduate Program in Econometrics, Master 1 (1998 – 2009)
- Supervisor of the stages in the Econometrics Graduate Program, Master 1 (1998 – 2011)
- Co-creator of the Econometrics Graduate Program, Master 2 (2004)
- Director of the Graduate Program in Econometrics, Master 2 (2004 – 2006)
- Member of the Economics UFR Council (2008 – 2013).
- Member of the THEMA Research Center Council (2007 – 2011).
- Professor in charge of the codification of the diploma (in the APOGEE software) in link with administrative collaborators (1997 – 2001).
- Member of the Observatory of the "Vie Étudiante" (2005 – 2011).
- Member of the orientation active team for the 1st year Undergraduate Program in economy (2011 – 2013).
- Member of the Computer Ressources Direction Council (1997 – 2002).

At the ESSEC Business School

- Supervisor of stages for students in Bachelor Cycles 1 and 2 (2002 – 2007).

At the ESCP-Europe Business School

- Supervisor of Data Mining Applied Studies in Bachelor Cycle 1 (1999 – 2010).

Scientific Activity

PhD Student

Charles-Olivier Amédée-Manesme, (December 2009 – 2013):

"Real Estate Finance: Portfolio Management, Risk and Derivatives", thesis defended at the University of Cergy-Pontoise (original french title: "Finance immobilière : management de portefeuille, risque et dérivés")

Student Position: Full Professor at the Laval University, Québec, Canada. Department of Finance, Insurance and Real Estate (*Finance, Assurance et Immobilier* in french).

Prices

- **Best Paper Prize** awarded by the American Real Estate Society (ARES), for the article written with Michel Baroni and Mahdi Mokrane, and presented at the European Real Estate Society (ERES) Conference, June 2006, Weimar (Germany): "Optimal Holding Period in Real Estate Portfolio".
- **Doctoral Prize - Best Paper** awarded by the American Real Estate Society (ARES), for the article written with and presented by Charles-Olivier Amédée-Manesme, at the American Real Estate Society (ARES) Conference, April 2011, Seattle (United States): "A Model to Compute Value at Risk for Direct Real Estate Investments".
- **Poster Prize - Best Paper** awarded by the European Real Estate Society (ERES), for the article written with and presented by Charles-Olivier Amédée-Manesme at the ERES Conference, June 2011, Rotterdam (Netherlands): "A Model to Compute Value at Risk for Direct Real Estate Investments".

Visiting Positions

- Invited Professor, at the Laval University, Québec, Canada, in the department of Finance, Insurance and Real Estate: May 2015 and September 2017.
- Invited Professor, at the National University of Ireland, Galway. Invitation financed by EGIDE, Programme Ulysses 2008, partenariat Hubert Curien (PHC) franco-irlandais (partenariat with Mathieu Martin and Ashley Piggins).

Participation to thesis and french HdR defenses

1. Thesis of An Nguyen, "Essays on Environments and Child Development: Evidence from Vietnam", defended in March 2023, à the University of Paris-Saclay (**président**).
2. Thesis of Ibrahima Soumare, "Éléments du risque de crédit en présence de phénomènes de contagion", defended in December 2022, at the University of Cergy-Pontoise (**president**).
3. Thesis of Louis Chauveau, "Imperfection des processus de choix sociaux : Études des conflits électoraux", defended in November 2016, at the University of Cergy-Pontoise (**rapporteur**).
4. Thesis of Zineb Abidi "Essais sur la coopération fiscale", defended in December 2015, at the University of Caen Normandie (**president**).
5. Thesis of Noëlvia Sedoarisoa "Les impacts des nuisances sonores aériennes : dépréciation immobilière et inégalité sociale ?", defended in September 2015, at the University of Cergy-Pontoise (**rapporteur**).
6. HdR of Sébastien Courtin, "Comportements individuels et collectifs : Études des procédures de vote et du pouvoir des différents membres dans un jeu politique", defended in November 2012 2014, at the University of Cergy-Pontoise (**member of the jury**).
7. Thesis of Stéphanie Attelan, "Stratégies d'investissement et méthodologie de la valorisation dans le secteur immobilier", defended in June 2014, at the University of Cergy-Pontoise (**rapporteur**).
8. Thesis of Patrick Lecomte, "Produits dérivés et actifs immobiliers : étude de faisabilité des méthodes de couverture factorielle", defended in September 2012, at the University of Nanterre (**rapporteur**).
9. Thesis of Marc Langenbach, "Systematic and unsystematic risk in European office markets", defended in September 2009, at the University of Paris Dauphine (**president**).

Research Contracts

- “Foreign buyers and their impact on the Montreal housing market”. Canadian Research Contract form the “Conseil de recherches en sciences humaines” (CRSH). The three other researchers are François Des Rosiers, Claude Fluet and Charles-Olivier Amédéee-Manesme (members of the University of Laval, Québec). Grant: 159,700 Canadian dollars split over 6 years, from 2016 – 2017 to 2021 – 2022.
- “Administrer, Gouverner”, French Research Contract, ANR, SOLITER project “Négocier la solidarité territoriale dans les intercommunalités”, 2009 – 2011. Work in common with Mathieu Martin for the team in Cergy. Grant: 5,000 euros.
- “L’impact des politiques de rénovation à Paris : application au quartier de la Goutte d’Or”, contract with the la Chambre des Dépôts et Consignation (CDC). Rapport delivered in 2004 (with Alessandra Michelangeli and Alain Trannoy). Grant: 45,000 euros.
- “Appreciation returns”, Individual Contract with AEW Europe, 2008. Analyse of Real Estate Indices developed by the Investment Property Databank Company (IPD) in a forecasting framework (as these indices are used to build Real Estate Derivatives). Grant: 12,000 euros.
- “Diversification internationale, coûts de transactions et choix de portefeuille à la suite de l’UME”, for the “fondation Banque de France pour la Recherche”. Rapport delivered in 1999 (with Agnès Benassy-Quéré, Mondher Bellalah, Makram Bellalah, Madhi Mokrane and Jean-Luc Prigent). `http://www.banque-france.fr/gb/fondation/papers/b.htm`.
- “Étude théorique sur la constitution d’un échantillon”, (1999), contract with l’Agence de l’Eau du Bassin Seine Normandie (with Alain Trannoy, THEMA). Grant: 4 600 euros.
- “Étude du prix de l’eau sur le bassin Seine Normandie”, (1998), contract with l’Agence de l’Eau du Bassin Seine Normandie (with Marc Fleurbaey and Alain Trannoy, THEMA). Grant: 6 000 euros.

Articles Published in Refereed Journals [1]

[1] "Proper use of the modified Sharpe ratios in performance measurement: rearranging the Cornish Fisher expansion", (2022), *Annals of Operations Research*, 313(2), 691 – 712 (with Charles-Olivier Amédée-Manesme).

[2] "Dummy Players and the Quota in Weighted Voting Games", (2021), *Group Decision and Negotiation*, 30(1), 43 – 61 (with Dominique Lepelley, Mathieu Martin and Hatem Smaoui).

[3] "Un nouveau paradigme de la dynamique des rendements immobiliers parisiens", (2020), *Revue Économique*, 2020/7, 279 – 294, (with Charles-Olivier Amédée-Manesme and Michel Baroni).

[4] "Computation of the corrected Cornish-Fisher expansion using the response surface methodology: application to VaR and CVaR", (2019), *Annals of Operations Research*, 281(1-2), 423-453, (with Charles-Olivier Amédée-Manesme and Didier Maillard).

[5] "Mixed-asset portfolio allocation under mean-reverting asset returns", (2019), *Annals of Operations Research*, 281(1-2), 65 – 98, (with Charles-Olivier Amédée-Manesme, Philippe Bertrand and Jean-Luc Prigent).

[6] "The 2016 Election: Like 1888 but not 1876 or 2000", (2019), *PS: Political Science & Politics*, 52, 20 – 24, (iwth Mathieu Martin and Ashley Piggins).

[7] "Ex-ante real estate Value at Risk calculation method", (2018), *Annals of Operations Research*, 262(2), 257 – 285, (with Charles-Olivier Amédée-Manesme).

[8] "Market heterogeneity, investment risk and portfolio allocation: applying quantile regression to the Paris apartment market", (2017) , *International Journal of Housing Markets and Analysis*, 10(5), 641 – 661,(with Charles-Olivier Amédée-Manesme, Michel Baroni and François des Rosiers).

[9] "Market heterogeneity and the determinants of Paris apartment prices: a quantile regression approach", (2017), *Urban Studies*, 54(14), 3260 – 3280, (with Charles-Olivier Amédée-Manesme, Michel Baroni and François des Rosiers).

[10] "Real estate investment: market volatility and optimal holding period under risk aversion", (2016), *Economic Modelling*, 59, 543 – 555, (with Charles-Olivier Amédée-Manesme and Jean-Luc Prigent).

[11] "Cornish-Fisher expansion for commercial real estate Value at Risk", (2015), *Journal of Real Estate Finance and Economics*, 50(4), 439 – 464, (with Charles-Olivier Amédée-Manesme and Donald Keenan).

[12] "The impact of lease structures on the optimal holding period for a commercial real estate portfolio", (2015), *Journal of Property Investment and Finance*, 33(2), 121 – 139, (with Charles-Olivier Amédée-Manesme, Michel Baroni and Mahdi Mokrane).

[13] "Referendum paradox and the U.S presidential elections", (2014), *Electoral Studies*, 34, 111 – 118, (with Mathieu Martin and Ashley Piggins).

[14] "On the likelihood of dummy players in weighted majority games", (2013), *Social Choice and Welfare*, 41(2), 263 – 279, (with Dominique Lepelley and Mathieu Martin).

[15] "Combining monte-carlo simulations and options to manage risk of real estate portfolios", (2013), *Journal of Property Investment and Finance*, 31(4), 360 – 389, (with Charles-Olivier Amédée-Manesme, Michel Baroni and Étienne Dupuy).

1. The order of the co-author names was always been the alphabetical one.

[16] "A repeat sales index robust to small datasets", (2011), *Journal of Property Investment and Finance*, 29(1), 35 – 48, (with Michel Baroni and Mahdi Mokrane).

[17] "A comparison between the methods of apportionment using power indices: the case of the U.S. presidential elections", (2011), *Annales d'Économie et de Statistique*, 101/102, 87– 106, (with Mathieu Martin).

[18] "Analyse spatiale du vote dans le cas d'intercommunalité dans le département du Val d'Oise", (2011), *Économie Publique*, 26-27(1-2), 129 – 168, (with Mathieu Martin).

[19] "What discount rate should bankruptcy judges use? Estimates from Canadian reorganization data", (2009), *International Review of Law and Economics*, 29(1), 67 – 72, (with Timothy Fisher and Jocelyn Martel).

[20] "Optimal time to sell in real estate portfolio management", (2009), *Journal of Real Estate Finance and Economics*, 38(1), 59 – 87, (with Jean-Luc Prigent).

[21] "La loi LRU a-t-elle modifié la distribution du pouvoir au sein des universités françaises ?", (2009), *Revue Économique*, 60(6), 1469 – 1482, (with Alain Béraud and Mathieu Martin).

[22] "Is it possible to construct derivatives for the Paris residential market ?", (2008), *Journal of Real Estate Finance and Economics*, 37(3), 233 – 264, (with Michel Baroni and Mahdi Mokrane).

[23] "Un nouvel indice de risque immobilier pour le marché résidentiel parisien", (2008), *Revue Économique*, 59(1), 99 – 118, (with Michel Baroni and Mahdi Mokrane).

[24] "La rénovation de la Goutte d'Or est-elle un succès ? Un diagnostic à l'aide d'indices de prix immobiliers", (2007), *Économie et Prévision*, 180/181(4-5), 107 – 126, (with Alessandra Michelangeli and Alain Trannoy).

[25] "Optimal holding period of a real estate portfolio", (2007), *Journal of Property Investment and Finance*, 25(6), 603 – 625, (with Michel Baroni and Mahdi Mokrane).

[26] "Monte carlo simulations versus DCF in real estate portfolio valuation", (2007), *Property Management*, 25(5), 462 – 486, (with Michel Baroni and Mahdi Mokrane).

[27] "A PCA repeat sales index for Paris to forecast apartment prices", (2007), *Journal of Real Estate Research*, 29(2), 137 – 158, (with Michel Baroni and Mahdi Mokrane).

[28] "Loi relative aux libertés et responsabilités des universités (loi LRU), élection du président et conseil d'administration : une analyse en termes de pouvoir", (2008), *Revue d'Économie Politique*, 59(1), 99 – 118, (with Alain Béraud and Mathieu Martin).

[29] "Critères pour une meilleure répartition des sièges au sein des structures intercommunales : une application au cas du Val d'Oise", (2007), *Revue Économique*, 58(2), 399 – 425, (with Mathieu Martin).

[30] "Real estate prices: a Paris repeat sales residential index", (2005), *Journal of Real Estate Literature*, 13(3), 303 – 321, (with Michel Baroni and Mahdi Mokrane).

[31] "Tests de racines unitaires multiples et saisonnalité", (1997), *Revue Économique*, 48(3), 673 – 683.

[32] "Unit roots tests and SARIMA models", (1996), *Economics Letters*, 50, 147 – 154, (with Michel Lubrano).

Other Articles

Book Chapters

[33] "Dummy players and the quota in weighted voting games : some further results", (2021), In "Evaluating Voting Systems with Probability Models, Essays by and in honor of William Gehrlein and Dominique Lepelley" (Chapter 13, pp. 299 – 315). Diss, M. et Merlin, V. (editors). Springer, Berlin (with Mathieu Martin).

[34] "Stratégies optimales d'allocation de portefeuilles internationaux avec contraintes", (2000), 13 – 30, In *Gestion des Risques dans un Cadre International : Réflexions théoriques et tests empiriques*, Economica, ISBN: 9782717841299 (with Makram Bellalah, Mahdi Mokrane and Jean-Luc Prigent).

Professional Articles

[35] "The size of the house of representatives, not the American people, can determine the outcome of presidential elections ", (2014), *LSE Research Online*, URL– `http://eprints.lse.ac.uk/58861/` (with Mathieu Martin and Ashley Piggins).

[36] "La rénovation de la Goutte d'Or : une goutte d'eau pour le marché immobilier parisien ?", (2006), *Études Foncières*, 121, mai-juin, (with Alessandra Michelangeli and Alain Trannoy).

Articles submitted

[37] "L'abattement fiscal de 20% des logements loués est-il justifié ?", submitted to *Revue Économique*, (with Charles-Olivier Amédée-Manesme).

[38] "Navigating Small Datasets: The Efficacy of the Factorial Index over the Repeat Sales Index", submitted to *Annals of Operations Research* (with Charles-Olivier Amédée-Manesme).

Unpublished Articles

Real Estate Finance and Economics

[39] "Real Estate Portfolio Management: Optimization under Risk Aversion", (2011), *THEMA Working Paper*, n° 2011–12, (with Jean-Luc Prigent). Presented at the American Real Estate Society Conference, April 2010, Naples (United States), .

[40] "La loi Carrez : une loi pour corriger les arrondis ?", (2006), *Notes de synthèses IDEP*, (with Alessandra Michelangeli and Alain Trannoy). Presented at the JMA, May 2007, Fribourg (Swiss).

[41] "Which capital growth Index for Paris?", (2003), *THEMA Working Paper*, n° 2004–04, and *ESSEC Working Paper*, n° 2003–02, (with Michel Baroni and Mahdi Mokrane). Presented at the European Real Estate Society Conference, June 2003, Helsinki (Finland).

[42] "Comparisons of real estate indices for Paris: can we detect the so-called bubble?", (2002), (with Michel Baroni and Mahdi Mokrane). Presented at the AREUEA International Conference, June 2003, Krakow (Poland).

[43] "Volatility, monte carlo simulations and option pricing models in real estate", (2001), (with Michel Baroni and Mahdi Mokrane). Presented at the European Real Estate Society Conference, June 2001, Alicante (Spain).

[44] "Indice de l'immobilier physique et facteurs systématiques de risques", (2001), *THEMA Working Paper*, n° 2001–23, (with Michel Baroni and Mahdi Mokrane).

Voting Games and Power Indices

[45] "Fair apportionment in the italian senate: which reform should be implemented ?", (2011), *THEMA Working Paper*, n° 2011–16, (with Gabriele Esposito, Mathieu Martin and Vincent Merlin).

[46] "Some conjectures on the two main power indices", (2011), *THEMA Working Paper*, n° 2011–14, (with Mathieu Martin and Bertrand Tchantcho).

[47] "Italian senate apportionment: is the 2007 proposal fair?", (2008), *THEMA Working Paper*, n° 2008–28, (with Gabriele Esposito and Mathieu Martin).

[48] "Configurations study for the Banzhaf and Shapley-Shubik indices of power", (2007), *THEMA Working Paper*, n° 2007–07, (with Mathieu Martin).

[49] "On the performance of the Shapley Shubik and Banzhaf power indices for the allocations of mandates", (2007), *THEMA Working Paper*, n° 2007–25, (with Mathieu Martin and Vincent Merlin).

Miscellaneous

[50] "Estimates of creditors' discount rates in count-supervised reorganization decisions", (2004), *THEMA Working Paper*, n° 2004–16, (with Timothy Fisher and Jocelyn Martel). Presented at the AFFI Conference, May 2004, Cergy (France).

[51] "Comparaison de tests de racine unitaire MA : tests LBI et tests basés sur des écritures non linéaires", (1998). Presented at the 7^{th} Journées du Sésame, September 1997, Ecully (France).

[52] "Properties of the ADF unit Root tests for models with trend and cycles", (1996), *GREQAM Working Paper*, n° 96–13, (with Michel Lubrano).

[53] "Properties of unit root tests for models with trend and cycles", (1996), *GREQAM* , n° 96–01 (with Michel Lubrano).

Conferences [2]

Real Estate Finance and Economics

I am joining the European Real Estate Society (ERES) and the American Real Estate Society (ARES):

ERES in June: 2018 in Reading – 2017 in Delft – 2016 in Regensbourg – 2014 in Bucarest – 2013 in Vienna – 2012 in Edimburg – 2011 in Rotterdam – 2010 in Milan – 2009 in Stockholm – 2007 in London – 2006 in Weimar – 2005 in Dublin – 2004 in Milan – 2003 in Helsinki – 2002 in Glasgow – 2001 in Alicante.

ARES in April: 2018 in Bonita Springs, FL – 2017 in San Diego, CA – 2016 in Denver, CO - 2015 in Fort-Myers, FL – 2014 in San Diego, CA – 2013 in Kona, Hawaii – 2012 in St Petersbourg, FL – 2011 in Seattle, WA – 2010 in Naples, FL – 2008 in Captiva Island, FL – 2007 in San Francisco, CA.

The other Conferences or Workshops:

— IFC, in Paris (France), March, 2017 and 2015.

— AFFI Conference, June 2015 at the ESSEC Business School in Cergy (France) and in June 2004 at the UCP, in Cergy (France).

— AREUEA Conference, January 2012, in Chicago (United States).

— ENHR Conference, July 2009, in Prague (Czech republic).

— Workshop in the honor of John Clapp, November 2008, in Maastricht (Netherlands).

— Annual Maastricht-Cambridge-MIT International Real Estate Finance & Economics Symposium, October 2007 , in Boston (United States).

— AREUEA International Conference, June 2003, Krakow (Poland).

— EEA Conference, August 2007, Budapest (Hungary) and in August 2002, in Venice (Italy).

— AREUEA Workshop, August 2003, in Skye (Scotland).

— "Rencontres du Logement" Workshop , in Marseilles : the 2^{th}, March 2008 and the 1^{rst}, October 2006.

— AFSE Conference, September 2003 and September 2001, in Paris (France).

Voting Games and Power Indices

— PET Conference, June 2009, in Galway (Irland).

— SCW Conference, June 2008 in Montreal (Canada).

— JMA Conference, May 2007, in Fribourg (Swiss).

Econometrics

— SESAME Workshop: 8^{th}, September 1998 in Montpellier (France) – 7^{th}, September 1997 in Ecully (France) – 6^{th}, September 1996 in Toulon (France).

— ESEM Conference, August 1996, in Istanbul (Turquey).

2. La signification des sigles utilisés est donnée en fin de section.

— ESRC Econometric Study Group, July 1996, in Bristol (England).

— Jeunes Économètres Conference, May 1995, in Lille (France).

— Workshop of Statistics, May 1995 in Jouy-en-Josas (France).

— European Summer School in Mathematical Economy and Econometrics, in Marseilles (France), July 1995 and July 1994.

- **Notations**

AFFI: Association Française de Finance (French Finance Association)
AFSE: Association Française de Science Economique (French Economic Association)
ARES: American Real Estate Society
AREUEA: American Real Estate and Urban Economics Association
EEA: European Economic Association
ENHR: European Network for Housing Research
ERES: European Real Estate Society
ESEM: Econometric Society European Meeting
IFC: International Finance Conference
JMA: Journées de Microéconomie Appliquée (Applied Microeconomy Congress)
PET: Public Economic Theory
SCW: Social Choice and Welfare