

Aude POMMERET

Professor at Université Savoie Mont Blanc

Scientific Advisor at France Stratégie

Associate editor of "European Economic Review"

Co-editor of "Resource and Energy Economics"

Board member of the Mathematical institute for earth planet (<https://impt.math.cnrs.fr/>)

Member of CNE2 (national commission for the evaluation of research and studies on the management of radioactive materials and waste)

Advisory Board member of TSE Energy and Climate Center

Head of EMBS program (www.embs.eu)

Email : aude.pommeret@univ-smb.fr

Born in 1973

French and Swiss citizen,

Married, 3 children.

Positions

Sept. 2006- : Professor at Université de Savoie (France).

Jan. 2018- : Scientific Advisor at France Stratégie (topics: carbon value, abatement costs, sufficiency).

Sept. 2014- 2017: Assistant Professor at the School of Energy and Environment, tenured, City University of Hong Kong, Professor at Université de Savoie (France) *on leave*.

January 2023: Coordinator and lecturer at EAERE European Winter School on Climate Policies, Innovation, and International Competitiveness.

July 2017 : Lecturer at the EAERE-FEEM-VIU European Summer School on Macroeconomics, Growth, and the Environment.

July 2016 : Visiting professor at Université Paris-Dauphine, Université Nanterre-Paris Ouest and Université de Savoie.

July 2015 : Visiting professor at Paris 1-Sorbonne, Université Nanterre-Paris Ouest and AgroParisTech Paris.

2017 : Invited professor at University of Geneva

2006-2014 : Invited professor at HEC Lausanne

2001-2006 : Assistant Professor at Université de Lausanne (Switzerland)

2000-2001 : Extramural fellow at Université Catholique de Louvain, Louvain-la-Neuve (Belgium)

Apr. and Oct. 2002: IMF Institute Visiting scholar, Washington D.C. (USA)

Education

PhD in Economics, Paris I University - Panthéon Sorbonne (France), 2000, « *Irreversible decisions under uncertainty and agents' preferences: the case of energy price uncertainty* ».

Sept. 2000-June 2001: Post-doctoral fellow at IRES University of Louvain

List of research topics

Renewable energy
Climate change
Uncertainty
Irreversibility
Macroeconomics

Working Papers

“Confronting the Carbon Pricing Gap: Second Best Climate Policy” (with Francesco Ricci, U. of Montpellier and Katheline Schubert PSE). *R&R Journal of the Association of Environmental and Resource Economists*

“Abatement capital accumulation and the shadow price of carbon”, (with Boris Le Hir, CGDD and Mathilde Salin, Banque de France and CIRED) *minor revision Annales d’Economie et Statistique*

“Stress Discounting”, (with Christian Gollier, TSE and Frédéric Cherbonnier, TSE).

“Valuing Joint Environmental Amenities with an Irreversible Investment” (with Robert Cairns, McGill University and CESifo).

“Willingness to pay for solar panels and smart grids“ (with Tunç Durmaz, Yildiz Technical University, Ian Ridley, City University of Hong Kong).

“Discounting the uncertain benefits of a mitigation project” (with Frédéric Cherbonnier, TSE).

Publications in refereed academic journals in economics

“Carbon taxes and tariffs, Financial Frictions, and International Spillovers”, (with Stefano Carattini, Giseong Kim, Georgia State University, Georgia State University, Givi Melkadze, Georgia State University), 2024, *European Economic Review*.

“A Rationale for the Right-to-Development Climate Policy Stance?” (with Francesco Ricci, U. of Montpellier and Dorothee Charlier U. Savoie Mont Blanc), *Journal of Environmental Economics and Management*, 2024.

“Chosen energy sufficiency : preference shocks and behavioral biases », (with Miquel Oliu-Barton, PSL, Alice Robinet, France Stratégie, Katheline Schubert, PSE et Mathilde Viennot, France Stratégie), *Economie et Statistique / Economics and Statistics*, 2024.

"Stringency of environmental policy in China: When pollution drives bribery" (with Xiaojun Yu, CUEB Beijing, Lin Zhang CityU HK) *Economic Modelling*, 2022.

"Critical Material for the Energy Transition" (with Francesco Ricci, U. of Montpellier and Katheline Schubert PSE), *European Economic Review*, 2022.

"Energy transition with variable and intermittent renewable electricity generation" (with Katheline Schubert, PSE and CESifo), *Journal of Economic Dynamics and Control*, 2021.

"Childbearing Postponement, its Option Value, and the Biological Clock" (with David de la Croix, Université Catholique de Louvain), *Journal of Economic Theory*, 2021

"Determining an Optimal Water Mix for Hong Kong" (with David von Eiff, City U. of HK) *Environmental Modeling and Assessment*, 2020

«Estimation of Residential Electricity Demand in Hong Kong under Electricity Charge Subsidies», (with Tunç Durmaz and Huseyin Tastan Yildiz U.) *Energy Economics*, 2020

« Smart Grids and Renewable Electricity Generation by Households» (with Prudence Dato, University of Basel and Tunç Durmaz, Yildiz U.) *Energy Economics*, 2019.

« Levelized Cost of Consumed Electricity » (with Tunç Durmaz, Yildiz U.) *Economics of Energy & Environmental Policy*, 2019.

« Intertemporal Emissions Permits Trading Under Uncertainty and Irreversibility » (with Katheline Schubert, PSE and CESifo), 2018, *Environmental and Resource Economics*. Awarded best ERE journal paper at EAERE conference.

« Supplementing domestic mitigation and adaptation with emissions reduction abroad to face climate change » (with Alain Ayong Le Kama, *EconomiX U.of Paris X*), 2016 *Environmental and Resource Economics*.

« Financial Integration, Growth and Volatility » (with Anne Epaulard, IMF) *Pacific Economic Review*, 2016.

« Optimal emission policy under the risk of irreversible pollution » (with Alain Ayong-le-Kama, EQUIPPE, and Fabien Prieur, INRA), *Journal of Public Economic Theory*, Vol 16(6) : 959-980, 2014.

« Technological vs ecological switch and the environmental Kuznets curve » (with Raouf Boucekkine, AMSE and Fabien Prieur, INRA), *American Journal of Agricultural Economics*, *Paper and Proceedings* 95 (2): 252-260, 2013.

« Optimal regime switching and threshold effects: theory and application to a resource extraction problem under irreversibility » (with R. Boucekkine, AMSE and F. Prieur, INRA), *Journal of Economic Dynamics and Control*, 37(12): 2979-2997, 2013.

« On the timing and optimality of capital controls: Public expenditures, debt dynamics and welfare » (with R. Boucekkine, AMSE and F. Prieur, INRA), *International Journal of Economic Theory*, Vol.9(1), p101-112, 2013.

« Double Irreversibility and Environmental Policy Design » (with Fabien Prieur, INRA) *Journal of Public Economic Theory*, Vol 15(2), p.273–291, 2013.

« Energy-saving Technology Adoption under Uncertainty in the Residential Sector », (with Dorothée Charlier and Alejandro Mosino, U. de Savoie) *Annals of Economics and Statistics*, Vol. 103-104, 2011.

« Abatement Technology Adoption under Uncertainty » (with Katheline Schubert, PSE) *Macroeconomic Dynamics*, Vol. 13(4), p. 493-522, 2009.

« Energy saving Technical Progress and Optimal Capital Stock: the Role of Embodiment » (with Raouf Boucekkine, IRES-University of Louvain), *Economic Modelling*, p.429-444, 2004.

« Recursive utility, Growth, and the Welfare Cost of Volatility » (with Anne Epaulard, IMF), *Review of Economic Dynamics*, 6(3), p.672-684, 2003.

« Optimally Eating a Stochastic Cake: a Recursive Utility Approach », (with Anne Epaulard, IMF), *Resource and Energy Economics*, 25(2), p.129-139, 2003.

« Fertility, Volatility, and Growth » (with William Smith, University of Memphis), *Economic Letters*, 87(3), p.347-353, 2005

« Préférences des Agents et Prime de Risque : une Application aux Données Françaises », (with Anne Epaulard, IMF), *Revue d'Economie Politique*, 4, p.611-638, 2001.

Publications in refereed academic journals in other disciplines

« Techno-economic analysis of a food waste valorization process via microalgae cultivation and co-production of plasticizer, lactic acid and animal feed from algal biomass and food waste» (*not the principal author*, with Tsz Him Kwan, Daniel Pleissner, Kin Yan Lau, Joachim Venus and Carol Sze Ki Lin*), *Bioresource Technology*, 198: 292–299, 2015.

Book

« Introduction à la macroéconomie » new updated edition, (with Anne Epaulard, university Paris Dauphine), *forthcoming January 26th 2017*, La Découverte, Repères, Paris.

« Introduction à la macroéconomie », (with Anne Epaulard, IMF), 2002, La Découverte, Repères, Paris.

Contributions to books

“Biodiversity is the New Climate”, in *Climate & Biodiversity: tackling global footprints*, Edward Elgar series *Critical Issues in Environmental Taxation.*, 2024, *forthcoming*.

“Promoting Solar Energy: Accounting for Barriers to the Transition”, in *Peace not Pollution, How going Green Can Tackle Both Climate Change and Toxic Politics*, CEPR, D. Rohner and C. Gollier (Eds), 2023

« Renewables, Energy Storage and Smart grids » (with Prudence Dato, University Savoie Mont Blanc and Tunç Durmaz, Yildiz Technical University) in *Climate and Energy protection in the EU and China*, Springer, 2018.

« Embodied technology adoption under uncertainty » (with Bruno Cruz, IRES-UCL) in *Optimal Control of Age-structured Populations in Economy, Demography, and the Environment*, N. Hritonenko, Y. Yatsenko and R. Boucekkine (Eds), 2010, Taylor & Francis, 2010

« Subsidizing energy saving capital accumulation: a real option approach » » (with Bruno Cruz, IRES-UCL), in "Option Valuation for Energy Issues", K.Ostertag, P.Llerena and A.Richard (Eds), Fraunhofer IRB Verlag, 2004.

« Gestion et valorisation des ressources non renouvelables en incertitude », (with Anne Epaulard, IMF) in "L'environnement, nouvelle dimension de l'analyse économique", K. Schubert and P. Zagamé (Eds.), Vuibert, 1998.

« Stochastic growth and irreversibility » in "Theory and Methods in Macroeconomics », H.Kempf and J-O. Hairault (Eds), Kluwer, 2001.

Consulting reports

2023 : « Sobriété », rapport thématique de la commission Pisani Ferry-Mahfouz
https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/fs-2023-les_incidences_economiques_de_l'action_pour_le_climat-thematique-sobriete.pdf

2022: « Les enjeux de modélisation pour évaluer l'impact macroéconomique de la transition climatique »
<https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/fs-2022-dt-impact-macro-21decembre-final.pdf>

2022: "Conducting socio-economic analysis for very long-term projects: lessons from the counter-expertise of the nuclear waste disposal Cigéo project"
https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/fs-2022-billet_methodologie_ese_projet_cigeo_18oct.pdf

2022: "The abatement costs: the electric system" (Criqui commission)
<https://www.strategie.gouv.fr/publications/couts-dabattement>

2021: "The abatement costs: methodology" (Criqui commission)
<https://www.strategie.gouv.fr/publications/couts-dabattement>

2021: Contre-expertise de l'évaluation socioéconomique du projet de CIGÉO
<https://www.andra.fr/sites/default/files/2021-03/Rapport%20Contre%20expertise%20independante%20CIGEO%20VF.pdf>

2019 "The value of the action for Climate" (Quinet 2 report)
<https://www.strategie.gouv.fr/publications/de-laction-climat>

2018: "Government Policy in favor of ultra-low emission vehicles"
<https://www.strategie.gouv.fr/english-articles/government-policy-favour-ultra-low-emission-vehicles>

Publications in other journals

2024 "The Challenge of the Century and Economics", *comment in Economie et Statistique*

2023 : The Conversation « Sobriété choisie : mirage ou voie possible »,
<https://theconversation.com/la-sobriete-choisie-mirage-ou-voie-possible-217071>

2022 : The Conversation « La planification écologique existe déjà en France... mais doit devenir opérationnelle », with Katheline Schubert, PSE.
<https://theconversation.com/la-planification-ecologique-existe-deja-en-france-mais-doit-devenir-operationnelle-183670>

2014 «A united front can save planet », Youngpost Columns, South China Morning Post,
<http://yp.scmp.com/news/special-reports/article/91672/discover-innovate-united-front-can-save-planet>

2011 « Développement durable : des mesures qui s'évaporent », Tribune dans LeMonde.fr

2006 « L'éthique et l'environnement ne peuvent pas encore être confiés au marché », Le Temps (Suisse).

2004 « L'insoutenable développement de nos économies », Le Temps (Suisse).

2022 « La politique monétaire doit-elle prendre en compte l'évolution du prix des actifs ? », Le Temps (Suisse).

Other Research Activities

2023- : Co-investigator for the targeted project: economic and technical foresight platform of the PEPR "subsoil" (amount co-controlled with BRGM 1.5Mn€)

2021- : Scientific director for IREGE (=Co-Investigator) of the ANR ScarCyclet “Materials scarcity and recycling for the energy transition” (amount controlled 200k€).

2016-2018: Principal Investigator for the GRF project “Implementing environmental policy in a politically-constrained world Second best under uncertainty” funded (HKD 602k) by the Research Grant Council of Hong Kong.

2015-2017: Principal Investigator for the GRF project “Irreversible decisions and thresholds under specific uncertainty- Designing the energy source mix for electricity generation” funded (HKD 311k).by the Research Grant Council of Hong Kong.

2014-2018: Scientific director (= Principal Investigator) for the ANR project (200 K€) “Sustainably reducing energy poverty” linking 4 French universities, research teams in the US and in Canada.

2008-2011: Scientific director (= Principal Investigator) for the PREBAT project on « Greenhouse Gases Emissions Reduction and Energetic Efficiency in Buildings: Economic and Financial Dimensions », linking 5 research teams in economics and one research team in physics. This project is financed (80K€) by the French Ministry of Ecology and Sustainable Development and Planning.

2010-2011: Scientific director for IREGE (=Co-Investigator) of the ANR CLEANER (Challenges for the long term economic ANALysis of Environment and natural Resources) (amount controlled: 40K€).

2011-2014 : Scientific Director for IREGE of ANR UNCERSD (taking into account UNCERTAINTIES for Sustainable Decisions), (amount controlled: 30K€). The objective of this project is to define and use methods that allow taking into account the uncertainties surrounding decisions for cities management.

Research supervision

PhD supervisor (Rowena Mathews) at Université Savoie Mont Blanc, on the subject « Electric vehicle and storage opportunities”, 2021-

PhD supervisor (Youssef El Makhrouf) at Université Savoie Mont Blanc, on the subject « Households Heating and Electricity: Towards a New Economic Model”, 2021-

PhD supervisor (Andrea Rangel) at Université Savoie Mont Blanc, on the subject « Transport inequalities in the energy transition », 2020-2024

PhD supervisor (Michael Owusu) at City University of Hong Kong, on the subject « Energy Consumption, Economic Growth and CO₂ Emissions: Implications for Energy Conservation and Security in Ghana », 2015 -2018. Now **lecturer** at the University of Cape Coast, Ghana.

PhD supervisor (David von Eiff) at City University of Hong Kong, on the subject « Alternative Drinking Water Supply Sources for Hong Kong and Potential Policy Implications », 2015 –2018. Now **post-doctoral fellow** at City University of Hong Kong.

Post-Doc supervision (Tunç Durmaz) at City University of Hong Kong, on the subject «Irreversible decisions and thresholds under specific uncertainty- Designing the energy source mix for electricity generation». 2015-2016. Now **associate professor** at Yildiz University, Turkey.

PhD supervisor (Prudence Dato) at the University of Savoie, on the subject « The Energy Transition », 2013 - 2016. Now **post-doctoral fellow** at the University of Basel, Switzerland.

PhD co-supervisor (Anna Risch) at the University of Savoie, on the subject « Environmental Policies evaluation ». 2009-dec 2013. Now **assistant professor** at the Université de Grenoble, France.

PhD co-supervisor (Dorothee Charlier) at the University of Savoie, on the subject « Impact of environmental policies on the energetic efficiency of residential building ». 2008-nov 2012. Now **assistant professor** at the Université de Montpellier, France.

PhD supervisor (Alejandro Mosino) at the University of Savoie, on the subject « Investment in Non-Renewable Natural Resources and Economic Growth ». 2009-sept 2012. Now **full time professor** at the university of Guanajuato, Mexico

PhD co-supervisor (Bruno Cruz) at IRES (UCL, Belgium), on the subject « Embodied Technological Progress and Public Investment under Uncertainty ». Completed in March 2005. Now **full time researcher** at IPEA (research institute in applied research) Brazil.

PhD and HDR committee member

PhD Baptiste Andrieu, U.Grenoble Alpes (2023) « Modelling energy dependencies: from raw materials to global health ».

PhD Etienne Lorang U. de Montpellier, "Circular economy, recycling and CO2 emissions » (2022), reviewer.

PhD: Nandeeta Neerunjun, U. Aix Marseille (2022) « Intermittent Renewables and Energy transition »

PhD ; Swaroop Rao, U. Savoie Mont Blanc (2022) « Investissement dans le développement durable au Brésil et externalités socio-économiques : trois essais empiriques. »

HDR: Louis-Gaëtan Giraudet, Ecole des Ponts Paris Tech « L'économie de l'efficacité énergétique : applications au secteur du logement » (2022), reviewer.

HDR Clémence Alasseur, U. PSL, "Regulation of Power Markets Under Decarbonization: A Modeling Approach" (2022), reviewer.

PhD Josselin Roman, U.PSL, "« Three Essays in financial economics: climate risk and the transition to low carbon economy" (2021), reviewer.

PhD Sai Bravo Melgarejo U. PPA, "The role of hydrogen in the energy transition", (2021)

HDR Marion Podesta, U. de Perpignan " Markets and the Environnement" (2020), garante.

PhD Kevin Genna (2020), AMSE, « Structural change and the energy transition » rapporteur.

PhD Behrang Shirizadeh (2020), EHESS, « Reaching carbon neutrality in France by 2050: Optimal choice of energy sources, carriers and storage options", rapporteur.

PhD Quentin Hoarau, (2020), Université Paris Saclay, « Out with the pipes, in with the plugs : on the economics of the energy transition in the automobile sector" rapporteur.

PhD Student Alexandre Cornet, PSE, " Three essays on intermittent renewable energy " (2020), reviewer

PhD Student Matthias Berthod, PSE, "Natural resources and strategic behaviors, Three essays on differential games in environmental economics"(2018) , reviewer

PHD Student Margot Hovsepian, Ecole Polytechnique, «Vers des parcours de développement plus durables : trois essais sur le progrès technique et l'environnement» (2017)

PhD student Dean Erwin, on the subject "« Development through structural change and the dynamics of energy consumption » (2016)

PhD student: Adrien Vogt-Schilb , on the subject « Essays on the transition to clean capital » (2015).

PhD student: Moukita Zakaria, on the subject « Territory management as the key for policy decisions under energetic constraints » (2013).

PhD student: Martino Pelli, HEC Lausanne, "Essays in the Macroeconomic Effects of the Environment" (2011)

PhD student: Mohamed Arja, on the subject : « The global cost approach – A study of buildings life-cycle scenarios » (2010)

PhD student: Franck Taillandier, on the subject « The notion of risk as the key to manage buildings » (2009)

Editor and Referee activities

2021- : Co-editor of the academic journal "European Economic Review"

2019-2023 : Section editor of the academic journal " City and environment Interactions"

2017- : Co-editor of the academic journal "Resource and Energy Economics"

Referee for: The Energy Journal, Journal of Environmental Economics and Management, Environmental Science and Policy, Journal of Public Economic Theory, Louvain Economic Review, Journal of Economic Dynamics and Control, Review of Economics Dynamics, Scandinavian Journal of Economics, Oxford Economic Papers, Macroeconomic Dynamics, Annales d'Economie et de Statistique, Mathematical Social Science, Resource and Energy Economics, Environmental and Resource Economics, Economic Theory, Pacific Economic

Review, Energies, Sustainability, European Journal of Public Economics, Journal of Mathematical Economics, International Tax and Public Finance, European Economic Review.

Conferences and other scientific presentations (since 2020)

2024 workshop pre-conference EAERE on circular economy, *keynote*; NTNU Energy transition conference (Trondheim, Norway), Seminar PSAE; workshop DIW Berlin, *invited*; LORDE workshop.

2023 FSR Climate Annual Conference, *invited*; Seminar RSB; CEPR/EAERE webinar; GCET24 conference, *invited*; PSE-ETH workshop, *invited*.

2022: Seminar at Collège de France, Montreal Resource and Environmental Economics Workshop, *invited*, EAERE conference, Seminar University of Luxembourg.

2021: Montreal Resource and Environmental Economics Workshop, *invited*, Seminar FAEE, EAERE conference.

2020: Conference on Sustainable Resource Use and Economic Dynamics, Ascona, Switzerland

Teaching activities

2017- : Head of the EMBS international Master program, in four countries (Italy, Spain, Germany and France).

2017- : Full Professor at Université Savoie Mont Blanc: Environmental economics and externalities (M1), European and Global Economics (M1), Introduction to Financial Economics (B2) and Short-term Macroeconomics (M1), Environmental Economics and Externalities (M1).

2017-2018: Invited professor at University of Geneva, Environmental Economics (B2/3).

2014-2017: Assistant professor at City University of Hong Kong: Energy and Energy-related Environmental Economics (B3), Energy and Energy-related Environmental Policy (B3), Energy and Environmental Economics (Postgraduate). Audience: engineers.

Chair of the “Minor in sustainability” Program. Teaching start-up grant (HKD 84k) for “Engaging students using annotations and peer correction”.

2006-2014 : Full Professor at University of Savoie. Subjects : Macroeconomics (B1-B2-B3-M1-M2 and doctoral program at Lyon 2) and Environmental Economics (M1, M2 and doctoral program). Invited professor in Lausanne: macroeconomics (B2), Business Cycles (M1) and Public finance (B3).

2001-2006 : Assistant professor at Lausanne University. Subjects: Macroeconomics (B2); Business Cycles (M1); Labor economics (B3).

2000-2001 : Course Uncertainty and irreversibility in the Master "Analysis and economic modelling", Paris I-Sorbonne and "Ecole Centrale de Paris".

Administrative responsibilities

Member of the IAE council (2023-)

Research projects reviewer for the French National Research Council (ANR) and the Belgium National Research Council (FNRS)

General Secretary of the FAERE (French Association of Environmental and Resource Economists) 2013-2021 (reelected in 2015). See: <http://faere.fr/fr/>

Elected member of Senate of City University, Hong Kong (2014-2016).

Member of the Advisory Committee to the Dean of SEE (2016-)

Member of the recruitment task force of SEE (2016-)

Member of the outreach committee for SEE (2016-)

Elected member of the French Universities National Council (CNU) 2011-2014.

Head of the second year Master « Research in economics » since September 2007

Head of the Bachelor in Economics and Management since 2013.

Head of the first year Master « Economics and Finance » 2009-13.

Co-director of the environmental economics section in the research department IREGÉ at the University of Savoie.