

EDUCATION

- 09/2008 – 03/2012 Toulouse School of Economics (TSE)
Ph.D. in Economics (Supervisor: Professor Christian Gollier)
summa cum laude (mention très honorable avec félicitations du jury)
Title: “Essays in Environmental Economics and the Role of Risk, Inequality, and Time”
- 09/2007 – 07/2008 Toulouse School of Economics (TSE)
M.Phil. in Advanced Quantitative Methods in Economics (with honors)
Specialization: Environmental and Development Economics, Decision Theory, Finance, Microeconometrics
- 10/2006 – 06/2007 Toulouse School of Economics (TSE)
M.Sc. in Mathematical Economics and Econometrics (with honors)
Specialization: Applied Microeconomics, Microeconometrics, Economic Growth, Development and Environmental Economics
- 04/2001 – 04/2005 Free University Berlin
M.A. in Economics (‘Diplom-Volkswirt’), Grade: A (1.4)
Finance, Risk Management, Econometrics, Development Economics, Latin American Studies, Modern History
- 10/1999 – 03/2001 University of Heidelberg
B.A. in Economics (‘Vordiplom’), Grade: A-

EMPLOYMENT HISTORY

- 01/2023 – present RFF-CMCC European Institute on Economics and the Environment (EIEE), Fondazione Centro Euro-Mediterraneo sui Cambiamenti Climatici
Senior Scientist
- 01/2015 – 12/2022 Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC), Milan
Scientist, ECIP/SEME division. Projects: GEMINA, CD-LINKS, COBHAM
- 01/2015 – 07/2018 Fondazione Eni Enrico Mattei (FEEM), Milan
Senior Researcher, CSI department. Working on various projects related to climate change policies and impact assessment. Co-leading the development of the integrated assessment model WITCH. Projects: LIMITS, ADVANCE, PENNY
- 04/2012 – 12/2014 Fondazione Eni Enrico Mattei (FEEM), Milan
Junior Researcher, Climate Change and Sustainable Development Department
Working on various projects related to climate change policies and impact assessment. The main tasks involved research contributing to optimal policy instruments and measuring the impact of climate change policies on the energy sector, drafting policy-oriented reports and presentations at international conferences. Writing and contributing of research proposals in the field of climate and energy economics.
- 01/2012 – 04/2012 The World Bank, Washington D.C.
Consultant, Department for Social Protection in Africa

Main tasks: developing a statistical method to target poor households in Burkina Faso and Mali. Based on the results, I drafted a policy report that was discussed in interactions with different departments at the World Bank.

- 09/2010 – 08/2011 Toulouse School of Economics (TSE), Toulouse
Junior lecturer, undergraduate and graduate level
- 07/2007 – 09/2007 European Bank for Reconstruction and Development (EBRD), London
Analyst at the Chief Economist Office
The main tasks included drafting parts for the Transition Report 2007, executing independent econometric data analysis. Moreover, I worked on a daily basis responsible for the economic analysis of current policy discussions in Albania and Macedonia.
- 07/2006 – 09/2006 Organization of American States (OAS), Washington D.C.
Consultant for a project on natural gas markets
In consultations with national agencies working on natural gas in Brazil, Mexico, Bolivia, Peru, and the International Technical Cooperation (PTB), I conducted a feasibility study for a multilateral project on the measurement of natural gas flows. Visiting all participating countries, a project outline was designed and presented.
- 09/2005 – 05/2006 German Development Institute (DIE), Bonn and New Delhi
Fellow of the postgraduate course in development cooperation
I participated at numerous professional trainings in policy advisory, economic impact assessment, report writing, conducting negotiations, project management, and presentation techniques. During a consultancy project, we designed and implemented an evaluation of companies with Social and Environmental Responsibility Standards in India and presented the results in New Delhi and Berlin to policy makers.
- 03/2005 – 07/2005 Gesellschaft fuer Internationale Zusammenarbeit (GIZ), Eschborn
Internship in the administrative department for projects in Latin America
In direct interaction with the head of department, I contributed to the development of management tools to monitor the implementation of the department strategy.
- 07/2003 – 02/2005 Berlin Social Science Center (WZB), Berlin
Research assistant at the department of governance and market processes
The main tasks included data research and analysis, assistance at organizing conferences and meetings with policy makers, and general administrative duties.
- 04/2004 – 05/2004 German Institute for Economic Research (DIW), Berlin
Internship in the department on international finance and currencies
Topic: Political Determinants of Currency Crises – Evidence from four Countries
- 03/2003 – 04/2003 Instituto Latinoamericano de Investigaciones Sociales, Quito
Internship, main topic: The consequences of dollarization, Strategies to foster local democratic movements in Ecuador and Peru

OTHER PROFESSIONAL ACTIVITIES

- **Editorial Activity:**
Public Finance Review, Associate Editor (2020 –
Guest lead editor of *Special Issues in Energy Strategy Reviews* (www.sciencedirect.com/journal/energy-strategy-reviews/about/call-for-papers), *Open Research Europe* (<https://open-research-europe.ec.europa.eu/collections/ecemp2022/about>), and *Environmental Research: Energy* (<https://iopscience.iop.org/collections/eren-230823-330>)
- **Scientific evaluation:**
European Commission within the Horizon 2020 Framework (Societal Challenges), *European Research Council (ERC)*

Irish Research Council, Austrian Science Fund, AXA Fellowships, FWO Research Projects, UK Research & Innovation NERC

- **Consulting:**

Asian Development Bank (ADB), The World Bank, European Bank for Reconstruction and Development (EBRD), German International Cooperation (GIZ), German Technical Cooperation (PTB)
Contributing Author for the IPCC Special Report on Global Warming of 1.5°C

- **Organization:**

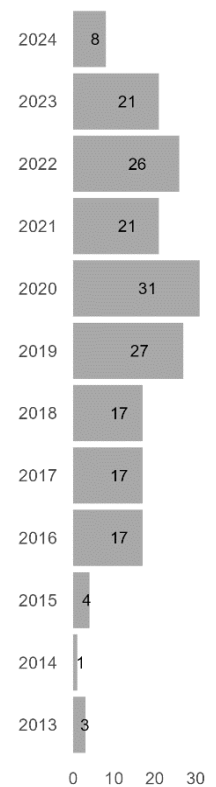
Organizer of a contributed Session on “Population Dynamics and Climate Change” at EAERE 2018
Organizer of the Monthly Research and Modeling meeting at FEEM (2014-2018) and EIEE (2018-2020)
Chair of the organization committee of the European Climate and Energy Modelling Platform (ECEMP) 2022 and 2023 www.ecemf.eu/ecemp

- **Programme Committee Member:**

Annual Conference of the European Association of Environmental and Resource Economists 2020, (online); 2021, Berlin; 2022, Rimini; 2023, Cyprus; 2024, Leuven;

- **Journal refereeing:**

Advances in Climate Change Research, Annals of the New York Academy of Sciences, Climate, Applied Economics Letters, Climate Change Economics, Climatic Change, Cross-Cultural Research, Earth System Science Data, Ecological Economics, Economics Bulletin, Economies, The Economic Journal, Energies, Energy and Climate Change, Energy Economics, Energy Efficiency, The Energy Journal, Energy Policy, Environment and Development Economics, Environmental Impact Assessment Review, Environmental and Resource Economics, Environmental Modeling & Assessment, Environmental Research Letters, Global Sustainability, Global Transitions, International Environmental Agreements: Politics, Law and Economics, International Review of Economics, iScience, Joule, Journal of the Association of Environmental and Resource Economists, Journal of Behavioral and Experimental Economics, Journal of Benefit-Cost Analysis, Journal of Cleaner Production, Journal of Comments and Replications in Economics, Journal of Economic Inequality, Journal of Economic Literature, Journal of Economic Surveys, Journal of Environmental Economics and Management, Journal of Environmental Management, Journal of Economic Behavior & Organization, Journal of Happiness Studies, Journal of Physics: Complexity, Journal of Public Economics, The Lancet Planetary Health, Management Science, Nature, Nature Climate Change, Nature Communications, Nature Energy, Nature Sustainability, One Earth, Palgrave Communications, PLOS ONE, Proceedings of the National Academy of Sciences, Public Finance Review, Resource and Energy Economics, Review of Economic Studies, Review of Environmental Economics and Policy, Science, Science of the Total Environment, Social Choice and Welfare, Sustainability, Structural Change and Economic Dynamics, Technological Forecasting & Social Change



PROJECTS AND PROPOSALS

- SPARCCE (CMCC scientific coordinator, coordinator: IIASA, 7.0 Mio. EUR, 2022)
- PRISMA (Project deputy coordinator, coordinator: CMCC, 5.0 Mio. EUR, 2022)
- CAPABLE (Project coordinator, coordinator: CMCC, 3.0 Mio. EUR, 2021)
- BRIDGE2030 (Proposal coordinator, coordinator: CMCC, not funded, 5.0 Mio. EUR, 2020)
- ECEMF (CMCC scientific coordinator, coordinator: KTH, 5.0 Mio. EUR, 2021-2025)
- NAVIGATE (CMCC scientific coordinator, coordinator: PIK, 7.0 Mio. EUR, 2019-2023)
- PENNY (researcher, coordinator: FEEM, 2.0 Mio. EUR, 2016-2019)
- CD-LINKS (researcher, coordinator: IIASA, 5.2 Mio. EUR, 2015-2019)
- APPRISE (Proposal co-coordinator, not funded, 3.8 Mio. EUR, 2016)
- ADVANCE (researcher, coordinator: PIK, 7.4 Mio. EUR, 2013-2016)
- LIMITS (researcher, coordinator: FEEM, 4.5 Mio. EUR, 2011-2014)

AWARDS

- Finalist for the Decision Analysis Society Publication Award (INFORMS, 2019)
- Best Paper Presented Award 2014, Fondazione Eni Enrico Mattei, for the presentation “Model Uncertainty, Climate Change, and Catastrophes”, with L. Berger and M. Tavoni
- Ph.D. Scholarship for three years (French Ministry of Education, 2007-2010)
- Scholarship for the DIE Development Policy Programme (Ministry for Economic Cooperation, 2006)
- Second runner up M.A. in Economics from the Free University Berlin (SS 2005)

TEACHING EXPERIENCE

- Integrated Assessment Modelling (Università Ca' Foscari Venezia, PhD level, 2018, 2019)
- The Economics of Climate Change, Lecture (EUI Florence/Stanford, Master level, 2013)
- Macroeconomics I&II, Tutorials, (UT1, 1st and 2nd year, in French, 2010)
- Public Economics, Tutorials (UT1, 3rd year, in French, 2010)
- Environmental Economics, Tutorials (TSE, Master level, in English, 2007-2010)
- **Supervision:**
Member of Ph.D. Committee (2 (University of Palermo, Paris School of Economics)), Co-supervision of Master Thesis (2), Co-supervision of Ph.D. thesis (1)
- Lecture at the CIRED Summer School at CIRED on A just transition to net zero emissions societies – contributions from Integrated Assessment Modelling studies (Paris, July 2022, [link](#))
- Co-organizer of the NAVIGATE-ENGAGE Summer School on Integrated Assessment Models (Como, July 2023, [link](#))

RESEARCH VISITS

- Energy and Resources Group, University of California, Berkeley (April-May 2014)
- Max Planck Institute for Tax Law and Public Finance, Munich (March-April 2010)

OUTREACH

- Scientific Expert for the Science Media Center (SMC), since 2019
- Asian Development Bank (ADCB SERD Policy Talk (SPOT) panelist on Employment, 4 November 2022

LANGUAGES

German (native), English (fluent), Spanish (fluent), French (fluent), Italian (fluent)

IT KNOWLEDGE

Expert knowledge: MS Office, R (github.com/JohannesEmm), GAMS.

Intermediate knowledge: Web Design, Stata, Matlab, Python

LEISURE INTERESTS

Piano/Keyboards: (www.the-strangers.it, among others)

Sports: Cycling, Tennis, Tango, Biking Tours, Skiing, Soccer.

Web Development:

- Founder of the music related web community (www.norduserforum.com) (300,000 page views/month)
- Creator of www.good2invest.com, a website about smart socially responsible investing

CONFERENCE PRESENTATIONS AND SEMINARS

- **Invited Presentations:**
Invited keynote speaker at the Chatham House High Level Roundtable: Fighting Poverty and Climate Change as One Goal, November 2023, London, Keynote speaker at IAMC 2022 (December 2022), Università di Siena (November 2022), University Durham (June 2022), Paris School of Economics (June 2021), CMCC Webinar (June 2020), Hamburg University, Hamburg (November 2019), PIK, Potsdam

(October 2019), Beihang University, Beijing (December 2016), Paris School of Economics (February 2016), Politecnico di Milano (May 2015), University Siegen (June 2011), University Toulouse (July 2011), University of Sussex (February 2012), FEEM-Bocconi University (September 2012)

- **Presentations:**

2024

2023 PRISMA project kick-off meeting (February 2023, Milan), CAPABLE project kick-off meeting (March 2023, Milan), NAVIGATE meeting (May 2023), Uncertainty Workshop, Bocconi University (May 2023), CMCC Annual Meeting (Ugento, June 2023), SPARCCL project meeting (September 2023), ECEMP 2023 (online, October 2023), IAMC, Venice (November 2023)

2022 ECEMP project meeting (May 2022), IEW (Freiburg, May 2022), EAERE (Rimini, June 2022), ECEMP 2022 (online, October 2022), IAMC 2022 (Poster, December 2022), IAMC 2022 (plenary keynote)

2021 IEW May 2021 (online), EAERE June 2021 (online), Inequality Workshop (Paris, June 2021), IAMC November 2021 (online)

2020 NAVIGATE Meeting, May 2020; EAERE Berlin/online, June 2020; EMP-E Conference, October 2020;

2019 CD-LINKS meeting, Rio de Janeiro, April 2019; COACCH meeting, Prague, May 2019; CMCC Annual Meeting, Ugento, June 2019; NAVIGATE Kick-Off Meeting, Potsdam, September 2019

2018 COACCH kick-off meeting, Venice, January 2018; IEW Gothenburg, June 2018; WCERE Gothenburg, June 2018; IAMC Meeting, Sevilla, November 2018

2017 1st Conference on Climate Economics, Rimini, April 2017; CTN Glasgow, May 2017; CDLINKS meeting Potsdam, May 2017; EAERE Athens, June 2017; IAMC Recife, December 2017

2016 ADVANCE meeting, Sevilla; ADB Climate Change Economics Workshop, Manila; EAERE Zurich 2016; AWEEE A Toxa, June 2016; SISC 2016, Cagliari; ADVANCE Final Conference, Brussels, September 2016; CDLINKS Meeting and IAMC December 2016, Beijing;

2015 ADVANCE Meeting, UCL London, September 2015; WRIEC 2015, Munich, August 2015; Our Common Future Conference, Paris, July 2015; EAERE 2015, Helsinki, June 2015; ECCA 2015 Conference, Copenhagen, May 2015; Coalition Theory Network Workshop, Venice, March 2015;

2014 Workshop of the Integrated Assessment Modelling Consortium (IAMC), Washington DC, November 2014; 2nd Annual SISC Conference, Venice, September 2014; XX. Climate Change and Integrated Assessment Workshop, Snowmass, CO, July 2014; Fifth Atlantic Workshop on Energy and Environmental Economics, A Toxa, June 2014; International Energy Workshop (IEW), Beijing, June 2014; EquiRisk Workshop at FMSH, Paris, May 2014; IAERE Conference, Milan, March 2014;

2013 FEEM Convention on Climate Change and Sustainable Development, Venice, October 2013; IFO Workshop "Integrated Assessment of International Climate Change Policies", Munich, July 2013; EAERE Annual Conference, Toulouse, June 2013; International Energy Workshop (IEW), Paris, June 2013; AERE Annual Conference, Banff, June 2013; Workshop on "Numerical Climate Coalition Models: A Modelling Comparison Exercise", Venice, 2013;

2012 Workshop on "Coupled Climate – Economic Modelling and Data Analysis", ENS Paris, November 2012; FEEM Convention on Climate Change and Sustainable Development, Venice, October 2012;

2011 18th Annual EAERE Conference, Rome, June 2011; Environmental Protection and Sustainability Forum, Exeter, April 2011;

2010 ASSET 2010 Annual Meeting, Alicante, October 2010; Workshop on Climate Change and Distribution, Oslo, June 2010; 3rd Doctoral Meeting of Montpellier, May 2010

PUBLICATIONS

Articles in peer-reviewed journals:

Emmerling, J., Kornek U., and S. Zuber (2024): **Multidimensional Welfare Indices and the IPCC 6th Assessment Report Scenarios**, *Ecological Economics*, 220 (June 1, 2024): 108182. [10.1016/j.ecolecon.2024.108182](https://doi.org/10.1016/j.ecolecon.2024.108182).

Bastien-Olvera, B. A., Conte M. N., Dong X., Briceno T., Batker D., Emmerling J., Tavoni M., Granella F., and F. C. Moore (2024): **Unequal Climate Impacts on Global Values of Natural Capital**, *Nature*, December 18, 2023, 1–6. [10.1038/s41586-023-06769-z](https://doi.org/10.1038/s41586-023-06769-z).

Andreoni P., Emmerling J., and M. Tavoni (2023): **Inequality Repercussions of Financing Negative Emissions**, *Nature Climate Change*, November 30, 2023. [10.1038/s41558-023-01870-7](https://doi.org/10.1038/s41558-023-01870-7)

- Emmerling, J., Andreoni P., and M. Tavoni (2024): **Global Inequality Consequences of Climate Policies When Accounting for Avoided Climate Impacts**, *Cell Reports Sustainability* 1 (online first: November 29, 2023). [10.1016/j.crsus.2023.100008](https://doi.org/10.1016/j.crsus.2023.100008)
- Dekker M., Daioglou V., Pietzcker R., Rodrigues R., de Boer H., Dalla Longa F., Drouet L., Emmerling J., Fattahi A., Fotiou T., Fragkos P., Fricko O., Gusheva E., Harmsen M., Huppmann D., Kannavou M., Krey V., Lombardi F., Luderer G., Pfenninger S., Tsiropoulos I., Zakeri B., van der Zwaan B., Usher W., and D. van Vuuren (2023): **Identifying Energy Model Fingerprints in Mitigation Scenarios**, *Nature Energy*, November 6, 2023, 1–10. [10.1038/s41560-023-01399-1](https://doi.org/10.1038/s41560-023-01399-1)
- Bistline J., Onda C., Browning M., Emmerling J., Iyer G., Mahajan M., McFarland J., McJeon H., Orvis R., Ralston Fonseca F., Roney C., Sandoval N., Sarmiento L., Weyant J., Woollacott J., and M. Yuanet (2023): **Equity Implications of Net-Zero Emissions: A Multi-Model Analysis of Energy Expenditures Across Income Classes Under Economy-Wide Deep Decarbonization Policies**, *Energy and Climate Change*, October 14, 2023, 100118. [10.1016/j.egycc.2023.100118](https://doi.org/10.1016/j.egycc.2023.100118)
- Dasgupta S., Emmerling J., and S. Shayegh (2023): **Inequality and growth impacts from climate change - insights from South Africa**, *Environmental Research Letters*, 2023. [10.1088/1748-9326/ad0448](https://doi.org/10.1088/1748-9326/ad0448)
- Pezzoli P., Emmerling J., and M. Tavoni (2023): **SRM on the Table: The Role of Geoengineering for the Stability and Effectiveness of Climate Coalitions**, *Climatic Change*, 176(10) (October 5, 2023): 141. [10.1007/s10584-023-03604-2](https://doi.org/10.1007/s10584-023-03604-2)
- Van der Wijst K., Bosello F., Dasgupta S., Drouet L., Emmerling K., Hof A., Leimbach M., Parrago R., Piontek F., and Standardi G. (2023): **New Damage Curves and Multimodel Analysis Suggest Lower Optimal Temperature**, *Nature Climate Change*, March 23, 2023. [10.1038/s41558-023-01636-1](https://doi.org/10.1038/s41558-023-01636-1)
- Colelli F., Emmerling J., Marangoni G., Mistry M., and E. De Cian (2022): **Increased Energy Use for Adaptation Significantly Impacts Mitigation Pathways**, *Nature Communications* 13, no. 1 (August 24, 2022): 4964. [10.1038/s41467-022-32471-1](https://doi.org/10.1038/s41467-022-32471-1)
- Emmerling J., De Cian E., and M. Malpede (2022): **Energy Intensity Convergence and Its Long-Run Minimum**, *Politica Economica*, Vol. 2, August 2022, 229-252. [10.1429/104375](https://doi.org/10.1429/104375)
- Shayegh S., Emmerling J., and M. Tavoni (2022): **International Migration Projections across skill levels in the Shared Socioeconomic Pathways**, *Sustainability* 14, no. 8 (January 2022): 4757. [10.3390/su14084757](https://doi.org/10.3390/su14084757)
- Drouet L., Bosetti V., Padoan S.A., Aleluia Reis L., Bertram C., Dalla Longa F., Després J., Emmerling J., Fosse F., Fragkiadakis K., Frank S., Fricko O., Fujimori S., Harmsen M., Krey V., Oshiro K., Nogueira L., Paroussos L., Piontek F., Riahi K., Rochedo P., Schaeffer R., Takakura J., van der Wijst K., van der Zwaan B., van Vuuren D., Vrontisi Z., Weitzel M., Zakeri B., and M. Tavoni (2021): **Net Zero-Emission Pathways Reduce the Physical and Economic Risks of Climate Change**, *Nature Climate Change*, 29 November 2021, 1–7. [10.1038/s41558-021-01218-z](https://doi.org/10.1038/s41558-021-01218-z)
- Hasegawa, T., Fujimori S., Frank S., Humpenöder F., Bertram C., Després J., Drouet L., Emmerling J., et al. (2021): **Land-Based Implications of Early Climate Actions without Global Net-Negative Emissions**, *Nature Sustainability*, 7 October 2021, 1–8. [10.1038/s41893-021-00772-w](https://doi.org/10.1038/s41893-021-00772-w)
- Pai, S., Emmerling J., Drouet L., Zerriffi H., and J. Jewell (2021): **Meeting Well-below 2°C Target Would Increase Energy Sector Jobs Globally**, *One Earth*, 4, no. 7 (23 July 2021): 1026–36. [10.1016/j.oneear.2021.06.005](https://doi.org/10.1016/j.oneear.2021.06.005)
- Bertram, C., Riahi K., et al. (2021): **Energy System Developments and Investments in the Decisive Decade for the Paris Agreement Goals**, *Environmental Research Letters*, 16, no. 7 (June 2021): 074020. [10.1088/1748-9326/ac09ae](https://doi.org/10.1088/1748-9326/ac09ae)
- Piontek F., Drouet L., Emmerling J., Kompas T., Méjean A., Otto C., Rising J., Soergel B., Taconet N., and M. Tavoni (2021): **Integrated Perspective on Translating Biophysical to Economic Impacts of Climate Change**, *Nature Climate Change*, 17 June 2021. [10.1038/s41558-021-01065-y](https://doi.org/10.1038/s41558-021-01065-y)
- Gazzotti P., Emmerling J., Marangoni G., Castelletti A., van der Wijst K., Hof A., and M. Tavoni (2021): **Persistent Inequality in Economically Optimal Climate Policies**, *Nature Communications* 12, no. 1 (8 June 2021): 3421. [10.1038/s41467-021-23613-y](https://doi.org/10.1038/s41467-021-23613-y)

- Harmsen M., Kriegler E., et al. (2021): **Integrated Assessment Model Diagnostics: Key Indicators and Model Evolution**, *Environmental Research Letters*, April 2021. [10.1088/1748-9326/abf964](https://doi.org/10.1088/1748-9326/abf964)
- Emmerling J., Navarro P., and M. R. Sisco (2021): **Subjective Well-Being at the Macro Level - Empirics and Future Scenarios**, *Social Indicators Research*, 157, 899–928. [10.1007/s11205-021-02670-2](https://doi.org/10.1007/s11205-021-02670-2).
- Emmerling, J. and M. Tavoni (2021): **Representing Inequalities in Integrated Assessment Modeling of Climate Change**, *One Earth*, 4, no. 2 (19 February 2021): 177–80, [10.1016/j.oneear.2021.01.013](https://doi.org/10.1016/j.oneear.2021.01.013).
- Keppo, I., Butnar I., Bauer N., Caspani M., Edelenbosch O., Emmerling J., Fragkos P., Guivarch C., Harmsen M., Lefèvre L., Le Gallic T., Leimbach M., McDowall W., Mercure J.-F., Schaeffer R., Trutnevyte E., and F. Wagner (2021): **Exploring the Possibility Space: Taking Stock of the Diverse Capabilities and Gaps in Integrated Assessment Models**, *Environmental Research Letters*, 2021, [10.1088/1748-9326/abe5d8](https://doi.org/10.1088/1748-9326/abe5d8).
- Fofrich, R.A., Tong D., Calvin K.V., de Boer H.S., Emmerling J., Fricko O., Fujimori S., Luderer G., Rogelj J., and Steven J. Davis (2020): **Early Retirement of Power Plants in Climate Mitigation Scenarios**, *Environmental Research Letters*, 2020, 15 (August 27, 2020), [10.1088/1748-9326/ab96d3](https://doi.org/10.1088/1748-9326/ab96d3).
- Berger L. and J. Emmerling (2020): **Welfare as Equity Equivalents**, *Journal of Economic Surveys*, Vol. 34, No. 4, 727–752, [10.1111/joes.12368](https://doi.org/10.1111/joes.12368) (Working Paper version: www.feem.it/getpage.aspx?id=9013)
- Malik A., Bertram C., Despres J., Emmerling J., Fujimori S., Garg A., Kriegler E., Luderer G., Mathur R., Roelfsema M., Shekhar S., Vishwanathan S., and Z. Vrontisi (2020): **Reducing Stranded Assets through early action in the Indian power sector**, *Environmental Research Letters*. Online first, [10.1088/1748-9326/ab8033](https://doi.org/10.1088/1748-9326/ab8033)
- Roelfsema M., van Soest H.L., Harmsen M., van Vuuren D.P., Bertram C., den Elzen M., Höhne N., Iacobuta G., Krey V., Kriegler E., Luderer G., Riahi K., Ueckerdt F., Després J., Drouet L., Emmerling J., Frank S., Fricko O., Gidden M., Humpenöder F., Huppmann D., Fujimori S., Fragkiadakis K., Gi K., Keramidas K., Köberle A.C., Reis L.A., Rochedo P., Schaeffer R., Oshiro K., Vrontisi Z., Chen W., Iyer G.C., Edmonds J., Kannavou M., Jiang K., Mathur R., Safonov G., and S.S. Vishwanathan (2020): **Taking Stock of National Climate Policies to Evaluate Implementation of the Paris Agreement**, *Nature Communications*, 11, no. 1 (29 April 2020): 1–12. [10.1038/s41467-020-15414-6](https://doi.org/10.1038/s41467-020-15414-6)
- Antonelli C., Coromaldi M., Dasgupta S., Emmerling J., and S. Shayegh (2020): **Climate Impacts on Nutrition and Labor Supply Disentangled – an Analysis for Rural Areas of Uganda**, *Environment and Development Economics*, 1–26. [10.1017/S1355770X20000017](https://doi.org/10.1017/S1355770X20000017)
- Jewell J., Emmerling J., Vinichenko V., Bertram C., Berger L., Daly H.E., Keppo I., Krey V., Gernaat D., Fragkiadakis K., McCollum D., Paroussas L., Riahi K., Tavoni M., and D. van Vuuren (2020): **Reply to: Why Fossil Fuel Producer Subsidies Matter**, *Nature (Matters Arising)*, 578, no. 7793 (February 2020): E5–7. [10.1038/s41586-019-1921-9](https://doi.org/10.1038/s41586-019-1921-9)
- Emmerling, J., Kornek U., Bosetti V., and K. Lessmann (2021): **Climate Thresholds and Heterogeneous Regions: Implications for Coalition Formation**, *The Review of International Organizations*, 16, 293–316, January 16, 2020. [10.1007/s11558-019-09370-0](https://doi.org/10.1007/s11558-019-09370-0)
- Emmerling J., Drouet L., van der Wijst K., Van Vuuren D., Bosetti V., and M. Tavoni (2019): **The role of the discount rate for emission pathways and negative emissions**, *Environmental Research Letters*, 14 (August 20, 2019): 1–11. [10.1088/1748-9326/ab3cc9](https://doi.org/10.1088/1748-9326/ab3cc9)
- Fujimori, S., Hasegawa T., Krey V., Riahi K., Bertram C., Bodirsky B.L., Bosetti V., Callen J., Després J., Doelman J., Drouet L., Emmerling J., Frank S., Fricko O., Havlik P., Humpenöder F., Koopman J., van Meijl H., Ochi Y., Popp A., Schmitz A., Takahashi K., and D. van Vuuren (2019): **A Multi-Model Assessment of Food Security Implications of Climate Change Mitigation**, *Nature Sustainability*, Vol. 2, No. 5 (May 13, 2019): 386–96. [10.1038/s41893-019-0286-2](https://doi.org/10.1038/s41893-019-0286-2)
- van den Berg N. J., van Soest H. L., Hof A. F., den Elzen M. G. J., van Vuuren D. P., Chen W., Drouet L., Emmerling J., Fujimori S., Höhne N., Koberle A. C., McCollum D., Schaeffer R., Shekhar S., Vishwanathan S. S., Vrontisi Z., and K. Blok (2019): **Implications of Various Effort-Sharing Approaches for National Carbon Budgets and Emission Pathways**, *Climatic Change*, February 14, 2019. [10.1007/s10584-019-02368-y](https://doi.org/10.1007/s10584-019-02368-y)
- Anthoff D. and J. Emmerling (2019): **Inequality and the Social Cost of Carbon**, *Journal of the Association of Environmental and Resource Economists*, Vol. 6, No. 2 (March 2019), 29–59. [10.1086/701900](https://doi.org/10.1086/701900)

- Emmerling J. and M. Tavoni (2018): **Exploration of the Interactions between Mitigation and Solar Radiation Management in Cooperative and Non-Cooperative International Governance Settings**, *Global Environmental Change*, Vol. 53 (November 1, 2018), 244–51. [10.1016/j.gloenvcha.2018.10.006](https://doi.org/10.1016/j.gloenvcha.2018.10.006)
- Reis, L.A., Drouet L., van Dingenen R., and J. Emmerling (2018): **Future Global Air Quality Indices under Different Socioeconomic and Climate Assumptions**, *Sustainability*, 10, 3645. [10.3390/su10103645](https://doi.org/10.3390/su10103645)
- Manoussi V., Xepapadeas A., and J. Emmerling (2018): **Climate Engineering under Deep Uncertainty**, *Journal of Economic Dynamics and Control*, Vol. 94, September 2018, 207-224. [10.1016/j.jedc.2018.06.003](https://doi.org/10.1016/j.jedc.2018.06.003)
- Emmerling J. (2018): **Sharing of Climate Risks across World Regions**, *Climate Change Economics*, Vol. 9, Issue 3, 1-19. [10.1142/S2010007818500070](https://doi.org/10.1142/S2010007818500070)
- McCollum D., Wilson C., Bevione M., Carrara S., Edelenbosch O.Y., Emmerling J., Guivarch C., Karkatsoulis P., Keppo I., Krey V., Lin Z., Ó Broin E., Paroussos L., Pettifor H., Ramea K., Riahi K., Sano F., Rodriguez B.S., and D. van Vuuren (2018): **Interaction of consumer preferences and climate policies in the global transition to low-carbon vehicles**, *Nature Energy*, Vol. 3, August 2018, 664-473. [10.1038/s41560-018-0195-z](https://doi.org/10.1038/s41560-018-0195-z)
- Luderer G., Vrontisi Z., Bertram C., Edelenbosch O., Pietzcker R., Rogelj J., Sytze De Boer H., Drouet L., Emmerling J., Fricko O., Fujimori S., Havlík P., Iyer G., Kimon Keramidias, Alban Kitous, Pehl M., Krey V., Riahi K., Saveyn B., Tavoni M., van Vuuren D., and E. Kriegler (2018): **Residual fossil CO₂ emissions in 1.5–2 °C pathways**, *Nature Climate Change*, Vol. 8, 626–633. [10.1038/s41558-018-0198-6](https://doi.org/10.1038/s41558-018-0198-6)
- McCollum D., Zhou W., Bertram C., de Boer H.S., Bosetti V., Busch S., Despres J., Drouet L., Emmerling J., Fay M., Fricko O., Fujimori S., Gidden M., Harmsen M., Huppmann D., Iyer G., Krey V., Kriegler E., Nicolas C., Pachauri S., Parkinson S., Pobleto-Cazenave M., Rafaj P., Rao N., Rozenberg J., Schmitz A., Schoepp W., van Vuuren D., and K. Riahi (2018): **Energy investment needs for fulfilling the Paris Agreement and achieving the Sustainable Development Goals**, *Nature Energy*, Vol. 3, July 2018, 589-599. [10.1038/s41560-018-0179-z](https://doi.org/10.1038/s41560-018-0179-z)
- Vinca A., Emmerling J., and M. Tavoni (2018): **Bearing the Cost of Stored Carbon Leakage**, *Frontiers in Energy Research*, Vol. 6, Art. 40, 1-11. [10.3389/fenrg.2018.00040](https://doi.org/10.3389/fenrg.2018.00040)
- Rogelj J., Popp A., Calvin K., Luderer G., Emmerling J., Gernaat D., Fujimori S., Strefler J., Hasegawa T., Marangoni G., Krey V., Kriegler E., Riahi K., van Vuuren D., Doelman J., Drouet L., Edmonds J., Fricko O., Harmsen M., Havlík P., Humpenöder F., Stehfest E., and M. Tavoni (2018): **Scenarios towards limiting global-mean temperature increase below 1.5°C**, *Nature Climate Change*, Vol. 8(3), March 2018, 325-332. [10.1038/s41558-018-0091-3](https://doi.org/10.1038/s41558-018-0091-3)
- Jewell J., McCollum D., Emmerling J., Bertram C., Gernaat D., Krey V., Paroussos L., Berger L., Fragkiadakis K., Keppo I., Failali N., Tavoni M., van Vuuren D., Vinichenko V., and K. Riahi (2018): **Limited climate benefits from fuel subsidy removal except in energy exporting regions**, *Nature*, 554, No. 7691 (February 2018), 229-233. [10.1038/nature25467](https://doi.org/10.1038/nature25467)
- Emmerling J. (2018): **Discounting and intragenerational equity**, *Environment and Development Economics*, Vol. 23, Issue 1 (February 2018), 19-36. [10.1017/S1355770X17000365](https://doi.org/10.1017/S1355770X17000365)
- Emmerling J. and M. Tavoni (2018): **Climate Engineering and Abatement: A ‘flat’ Relationship Under Uncertainty**, *Environmental and Resource Economics*, Vol. 69, No. 2 (February 2018), 395-415. [10.1007/s10640-016-0104-5](https://doi.org/10.1007/s10640-016-0104-5)
- Emmerling J., Groom B., and T. Wettingfeld (2017): **Discounting and the representative median agent**, *Economics Letters*, Vol. 161, December 2017, 78-81. [10.1016/j.econlet.2017.09.031](https://doi.org/10.1016/j.econlet.2017.09.031)
- Emmerling J. and S. Qari (2017): **Car ownership and hedonic adaptation**, *Journal of Economic Psychology*, Vol. 61, August 2017, 29-38. [10.1016/j.joep.2017.02.014](https://doi.org/10.1016/j.joep.2017.02.014)
- Edelenbosch O., van Vuuren D., Bertram C., Carrara S., Emmerling J., Daly H., Kitous, A. McCollum, D., and N. Saadi Failali (2017): **Transport fuel demand responses to fuel price and income projections: Comparison of integrated assessment models**, *Transportation Research Part D: Transport and Environment*, Vol. 55, August 2017, 310-321. [10.1016/j.trd.2017.03.005](https://doi.org/10.1016/j.trd.2017.03.005)
- van Vuuren D., Riahi K., Calvin K., Dellink R., Emmerling J., Fujimori, S., KC S., Kriegler E., and B. O’Neill (2017): **The Shared Socio-economic Pathways: Trajectories for human development and global environmental change**, *Global Environmental Change*, Vol. 42, January 2017, 148-152. [10.1016/j.gloenvcha.2016.10.009](https://doi.org/10.1016/j.gloenvcha.2016.10.009)

Riahi K., van Vuuren D., Kriegler E., Edmonds J., O'Neill B., Fujimori S., Bauer N., Calvin K., Dellink R., Fricko O., Lutz W., Popp A., Crespo Cuaresma J., KC S., Leimbach M., Jiang L., Kram T., Rao S., Emmerling J., Ebi K., Hasegawa T., Havlik P., Humpenöder F., Aleluia Da Silva L., Smith S., Stehfest E., Bosetti V., Eom J., Gernaat D., Masui T., Rogelj J., Strefler S., Drouet L., Krey V., Luderer G., Harmsen M., Takahashi K., Baumstark L., Doelman J., Kainuma M., Klimont Z., Marangoni G., Lotze-Campen H., Obersteiner M., Tabeau A., and M. Tavoni (2017), **The Shared Socioeconomic Pathways and their Energy, Land Use, and Greenhouse Gas Emissions Implications: An Overview**, *Global Environmental Change*, Vol. 42, January 2017, 153-168. [10.1016/j.gloenvcha.2016.05.009](https://doi.org/10.1016/j.gloenvcha.2016.05.009)

Bauer N., Calvin K., Emmerling J., Fricko O., Fujimori S., Hilaire J., Eom J., Krey V., Kriegler E., Mouratiadou I., Sytze de Boer H., van den Berg M., Carrara S., Daioglou V., Drouet L., Edmonds J., Gernaat D., Havlik P., Johnson N., Klein D., Kyle P., Marangoni G., Masui T., Pietzcker R., Strubegger M., Wise M., Riahi K., van Vuuren D. (2017): **Shared Socio-Economic Pathways of the Energy Sector – Quantifying the Narratives**, *Global Environmental Change*, Vol. 42, January 2017, 316-330. [10.1016/j.gloenvcha.2016.07.006](https://doi.org/10.1016/j.gloenvcha.2016.07.006)

Kriegler E., Bauer B., Popp A., Humpenöder F., Leimbach M., Strefler J., Baumstark L., Bodirsky B.-L., Hilaire J., Klein D., Mouratiadou I., Weindl I., Bertram C., Dietrich J.-P., Luderer G., Pehl M., Pietzcker R., Piontek F., Lotze-Campen H., Biewald A., Bonsch M., Giannousakis A., Kreidenweis U., Müller C., Rolinski S., Schultes A., Schwanitz J., Stevanovic M., Calvin K., Emmerling J., Fujimori S., and O. Edenhofer (2017): **Fossil-fueled development (SSP5): an energy and resource intensive scenario for the 21st century**, *Global Environmental Change*, Vol. 42, January 2017, 297-315. [10.1016/j.gloenvcha.2016.05.015](https://doi.org/10.1016/j.gloenvcha.2016.05.015)

Berger L., Emmerling J., and M. Tavoni (2017): **Managing Catastrophic Climate Risks Under Model Uncertainty Aversion**, *Management Science*, Vol. 63, No. 3, 749-765. [10.1287/mnsc.2015.2365](https://doi.org/10.1287/mnsc.2015.2365)

Drouet L. and J. Emmerling (2016): **Climate policy under socio-economic scenario uncertainty**, *Environmental Modelling & Software*, Vol. 79, May 2016, 334-342. [10.1016/j.envsoft.2016.02.010](https://doi.org/10.1016/j.envsoft.2016.02.010)

Lessmann, K., Kornek U., Bosetti V., Dellink R., Emmerling J., Eyckmans J., Nagashima M., Weikard H.-P., and Z. Yang (2015): **The Stability and Effectiveness of Climate Coalitions: A Comparative Analysis of Multiple Integrated Assessment Models**, *Environmental and Resource Economics*, Vol. 62, No. 4, 811–36. [10.1007/s10640-015-9886-0](https://doi.org/10.1007/s10640-015-9886-0)

Other publications:

Emmerling, J., Aleluia L., Drouet L., Raitzer D., and M. Pradhananga (2023): **Assessing the Implications of a Global Net-Zero Transition for Developing Asia - Insights from Integrated Assessment Modeling**, ADB Economic Working Paper NO. 709, December 2023, Asian Development Bank, [10.22617/WPS230587-2](https://doi.org/10.22617/WPS230587-2)

Emmerling, Johannes and Daniele Malerba (2022): **Modelling the interaction between climate mitigation and income inequality: the use of Integrated Assessment Models and the case of India**, in: Anita Breuer et al. (eds): *Governing the Interlinkages between the SDGs - Approaches, Opportunities and Challenges*, Routledge Publishing, December 23, 2022, ISBN 9781032184692. <https://www.routledge.com/Governing-the-Interlinkages-between-the-SDGs-Approaches-Opportunities/Breuer-Malerba-Srigiri-Balasubramanian/p/book/9781032184692>

Anthoff D., Dennig F., and J. Emmerling (2021): **On Differentiated Carbon Prices and Discount Rates**, CESifo Working Paper no. 9243. Munich: August 2021. https://www.cesifo.org/DocDL/cesifo1_wp9243.pdf

Emmerling, J., Furceri D., Libano Monteiro F., Loungani P., Ostry J.D., Pizzuto P., and M. Tavoni (2021): **Will the Economic Impact of COVID-19 Persist? Prognosis from 21st Century Pandemics**, IMF Working Paper WP/21/119, Washington, D.C: IMF, 20 April 2021. <https://www.imf.org/en/Publications/WP/Issues/2021/04/30/Will-the-Economic-Impact-of-COVID-19-Persist-Prognosis-from-21st-Century-Pandemics-50288>

Emmerling J., Fragkiadakis K., Fragkos P., Gulde R., Kriegler E., Mercure J.-F., van Ruijven B., Simsek Y., Tavoni M., and C. Wilson (2020): **Impacts of COVID-19 and recovery packages on climate change mitigation - First results from the NAVIGATE project**, Policy brief, [link](#)

Tavoni M., Bosetti V., Shayegh S., Drouet L., Emmerling J., Fuss S., Goeschl T., Guivarch C., Lontzek T., Manoussi V., Moreno-Cruz J., Muri H., Quaas M., and W. Rickels (2017): **Challenges and opportunities for integrated modeling of climate engineering**, FEEM Nota di lavoro 038.2017, [link](#).

Reis L.A., Emmerling J., Tavoni M., and D. Raitzer (2016): **The Economics of Greenhouse Gas Mitigation in Developing Asia**, ADB Economics Working Paper Series No. 504, December 2016, Asian Development Bank, Mandaluyong City, Philippines. www.adb.org/publications/economics-greenhouse-gas-mitigation-developing-asia

Emmerling J. and M. Tavoni (2016): **Geoengineering and Climate Change Mitigation: Trade-offs and Synergies as Foreseen by Integrated Assessment Models**, in: "Climate Justice and Geoengineering" (edited by Christopher J. Preston), Rowman and Littlefield International (RLI), London, September 2016, www.rowmaninternational.com/books/climate-justice-and-geoengineering, ISBN: 978-1-78348-636-6

Emmerling J., Drouet L., Aleluia Reis L., Bevione M., Berger L., Bosetti V., Carrara S., De Cian E., De Maere D'Aertrycke G., Longden T., Malpede M., Marangoni G., Sferra F., Tavoni M., Witajewski-Baltvilks J., Havlik P. (2016): **The WITCH 2016 Model - Documentation and Implementation of the Shared Socioeconomic Pathways**, FEEM Nota di Lavoro 42.2016. Fondazione Eni Enrico Mattei, 2016. <http://www.feem.it/getpage.aspx?id=8521>

Emmerling J. (2015): **What keeps you from acting rationally?**, blog article on COBHAM, www.cobham-erc.eu/acting-rationally, September 2015.

Emmerling J. (2015): **Uncertainty and Natural Resources - Prudence facing Doomsday**, 2015, FEEM Nota di Lavoro 049.2015, <http://www.feem.it/getpage.aspx?id=7503>

Emmerling J. (2015): **Climate Policy Negotiations – Insights from Game Theory**, in: CTN - From theory to application, 8, September 2015, available at: www.coalitiontheory.net/content/climate-policy-negotiations-%E2%80%93-insights-game-theory

Emmerling J. and M. Tavoni (2013): **Is Geoengineering a Viable Option for Dealing with Climate Change?**, April 17, 2013, Review of Environment, Energy and Economics ([link](#)) and VoxEU.org

Emmerling J. (2012): **Targeting cash transfers in Mali – A proxy means test approach**, The World Bank, 2012, Washington, D.C., www.researchgate.net/publication/326368912.

Emmerling, J. (2011): **Essays in Environmental Economics and the Role of Risk, Inequality, and Time**, Ph.D. thesis, Toulouse School of Economics. <http://www.theses.fr/2011TOU10042>.

Country reports on Albania and FYR Macedonia (with P. Sanfey), in: Transition Report 2007: People in transition, European Bank for Reconstruction and Development, 2007, pp.94-97 & 130-133, [link](#).

Chahoud T., Emmerling J., Kolb D., Kubina I., Repinski G., and C. Schlaeger (2007): **Corporate Social and Environmental Responsibility in India – Assessing the Global Compact's Role**, DIE Study No. 26, Bonn, ISBN: 978-3-88985-336-3. www.die-gdi.de/uploads/media/Studies_26.pdf

Emmerling J. (2006): Metrology for the Natural Gas Sector – Triangular approaches for Latin America, Washington D.C., [link](#).

Emmerling J. (2005): The natural resource curse – an economic policy and political economic analysis, Free University Berlin, Master's Thesis (in German), [link](#).

Emmerling J. (2004): Political Determinants of Currency Crises – Evidence from four Countries, DIW, Berlin, [link](#).

Emmerling J. (2003): Die Auswirkungen der Dollarisierung auf den produktiven Sektor, ILDIS Report, Quito, [link1/link2](#).