
ADDRESS

Department of Economics
Schanzeneckstrasse 1
Postfach
3012 Bern
Switzerland

Phone: +41 31 684 4508
Email: ralph.winkler@unibe.ch
Web: www.ralph-winkler.de
Google Scholar ID: [zcJLW0AAAAAJ](https://scholar.google.com/citations?user=zcJLW0AAAAAJ)

CURRENT POSITION

Since 03/2014 Associate Professor at the Department of Economics and the Oeschger Centre for Climate Change Research, University of Bern, Switzerland

Since 03/2014 Co-Director of the Institute of Economics, University of Bern, Switzerland

PREVIOUS ACADEMIC POSITIONS

08/2009– 02/2014 Assistant Professor at the Department of Economics and the Oeschger Centre for Climate Change Research, University of Bern, Switzerland

06/2006 – 07/2009 Post-Doctoral Researcher at the Center of Economic Research at ETH Zurich (CER-ETH), Switzerland

02/2004 – 02/2006 Post-Doctoral Marie Curie Fellow at the School of Politics, International Relations and the Environment (SPIRE), Keele University, UK

07/2003 – 12/2003 Post-Doctoral Researcher at the Interdisciplinary Institute for Environmental Economics, University of Heidelberg, Germany

EDUCATION

06/2000 – 06/2003 University of Heidelberg, Germany
Degree: Ph.D., Economics (Dr. rer. pol., Volkswirtschaftslehre)
Grade: summa cum laude

04/1996 – 12/2000 University of Heidelberg, Germany
Degree: M.A., Economics (Diplom-Volkswirt)
Grade: 1.2 (excellent, best of class)

11/1993 – 02/1999 TUM, Munich, and the University of Heidelberg, Germany
Degree: M.S., Physics (Diplom-Physiker)
Grade: 1.0 (excellent)

1992 High school degree (Abitur), Puchheim near Munich, Germany

RESEARCH VISITS

2023 Grantham Research Institute on Climate Change and the Environment, London School of Economics, UK

2017 Grantham Research Institute on Climate Change and the Environment, London School of Economics, UK

2017 ifo Center for Energy, Climate and Exhaustible Resources, University of Munich, Germany

PERSONAL BACKGROUND

Date and place of birth: 6 June 1973 in Munich, Germany

Marital status: Married, two children

Citizenship: German

RESEARCH INTERESTS*Climate Change and Environmental Policy*

International environmental agreements and non-cooperative climate policy
 Technological and structural change in the mitigation of climate change
 Discounting in long-run decisions

Other Research Interests

Waste management and regulation
 Natural resource management and development
 Endogenous lifetime and growth

RESEARCH GRANTS AND AWARDS

- 06/2000 – 05/2003 Ph.D. fellowship in PhD-program "*Environmental and Resource Economics*", DFG, approx. 40'000 €
- 04/2004 Klaus O. Fleck Award, Chamber of Industry and Commerce (IHK) Rhein-Neckar, Germany
- 02/2004 – 02/2006 Marie Curie Post-doctoral Fellowship: "*Ecological and Economic Valuation of Ecosystem Services – an Integrated Approach*", European Commission, approx. 150'000 €
- 08/2014 – 02/2018 Co-PI of SINERGIA project "*Climate Change Extremes and Adaptation Strategies Considering Uncertainty and Federalism (CCAdapt)*" SNF, own part approx. 170'000 CHF
- 01/2016 – 12/2018 Research Project "*Mehrzweckspeicher als Schlüssel für eine nachhaltige Wasserbewirtschaftung in der Schweiz*" (with Rolf Weingartner), Dr. Alfred Bretscher Fonds, approx. 170'000 CHF
- 10/2017 – 09/2027 Lead author for grant application "*Mercator Professorship in Empirical and Experimental Climate and Environmental Economics*", Mercator Foundation Switzerland, approx. 2.3 mil CHF
- 02/2020 – 01/2024 PI of SNF-project "On the Interactions between Domestic and International Policy and the Prospects for International Climate Cooperation", SNF, approx. 333'500 CHF

REVIEWING SERVICES TO THE ACADEMIC SOCIETY

- Peer-Reviewed Journals (selection) *Econometrica*, *Quarterly Journal of Economics*, *Journal of the European Economic Association*, *European Economic Review*, *International Economic Review*, *Journal of Economic Theory*, *Journal of Public Economics*, *Journal of Health Economics*, *Economic Theory*, *Journal of Economic Dynamics & Control*, *Journal of Environmental Economics & Management*, *American Journal of Agricultural Economics*, *Ecological Economics*, *Environmental & Resource Economics*, *Resource & Energy Economics*, *Land Economics*, *Energy Economics*, *Environment & Development Economics*, *Climatic Change*, *Journal of Public Economic Theory*, *Mathematical Social Sciences*, *Scottish Journal of Political Economy*, *Journal of Institutional and Theoretical Economics*, *Journal of Evolutionary Economics*, *Ecological Economics Reviews*, *Sustainability*
- Conferences with Peer-Review World Congress of Environmental and Resource Economists (2018, 2014), European Association of Environmental and Resource Economists (2023, 2022, 2021, 2020, 2019, 2017, 2016, 2015, 2013, 2012, 2011, 2009)
- Research Funding Bodies National Science Foundation (NSF), USA; Federal Ministry of Education and Research (BMBF), Germany; Swiss National Science Foundation (SNF), Switzerland

MEMBERSHIP IN SCIENTIFIC ORGANIZATIONS

Econometric Society (ES), European Economic Association (EEA), Association of Environmental and Resource Economists (AERE), European Association of Environmental and Resource Economists (EAERE), Schweizerische Gesellschaft für Volkswirtschaft und Statistik (SGVS), Verein für Socialpolitik (Member of the "Ausschuss Umwelt- und Ressourcenökonomik"), Research Fellow of the CESifo Research Network

SUPERVISION

Post-Docs	Dr. Christian Almer (10/2009–03/2013) Dr. Oscar Lecuyer (12/2013–03/2015)
PhDs	Wolfgang Habla (01/2010–10/2014) Sarina Steinmann (01/2012–12/2016) Gala Sipos (05/2015–07/2019) Sarah Spycher (06/2018–02/2023) Anna Schmid (since 02/2020) Marina Glaus (since 02/2023)
Students	78 BA-Theses (Economics) 26 MA-Theses (Economics) 21 MA-Theses (Climate Sciences)

TEACHING

PhD-Level	Climate Economics: Discounting and Intergenerational Equity Strategic Interaction I+II International Climate Policy
Master-Level	Resource Economics Climate Economics: Scientific and Economic Foundations Climate Economics: International Cooperation Economics of Innovation Seminar: Uncertainty in Climate Sciences and Economics Seminar: Environmental and Resource Economics Seminar: Philosophy of Economics
Bachelor-Level	Economic Principles Introduction to Game Theory Introduction to Environmental Economics Economics of Innovation

PUBLICATIONS*Articles in Peer-Reviewed Journals*

1. Strategic delegation in the formation of modest international environmental agreements (with S. SPYCHER). *European Economic Review* **141**: 103963, 2022.
2. Long-term climate treaties with a refunding club (with H. GERSBACH and N. HUMMEL). *Environmental & Resource Economics* **80**: 511–552 2021.
3. Growth and welfare under endogenous lifetime (with M. T. SCHNEIDER). *Scandinavian Journal of Economics* **123**: 1339–1384, 2021.
4. Domestic Pressure and International Climate Cooperation (with A. TAVONI). *Annual Review of Resource Economics* **13**: 225–243, 2021.
5. Sharing a river with downstream externalities (with S. STEINMANN). *GAMES* **10**: 23, 2019.
6. Strategic delegation and international permit markets: Why linking may fail (with W. HABLA). *Journal of Environmental Economics & Management* **92**: 244–250, 2018.
7. Analysing the effectiveness of international environmental policies: The case of the Kyoto Protocol (with C. ALMER). *Journal of Environmental Economics & Management* **82**: 125–151, 2017.
8. Political influence on non-cooperative international climate policy (with W. HABLA). *Journal of Environmental Economics & Management* **66**: 219–234, 2013.
9. Trading off generations: equity, discounting and climate change (with M. T. SCHNEIDER and C. TRAEGER). *European Economic Review* **56**: 1621–1644, 2012.
10. Global refunding and climate change (with H. GERSBACH). *Journal of Economic Dynamics & Control* **36**: 1775–1795, 2012.
11. A note on the optimal control of stocks accumulating with a delay. *Macroeconomic Dynamics* **15**: 565–578, 2011.
12. International emission permit markets with refunding (with H. GERSBACH). *European Economic Review* **55**: 759–773, 2011.
13. Distorted time preferences and time-to-build in the transition to a low-carbon energy industry (with C. HEINZEL). *Environmental & Resource Economics* **49**: 217–241, 2011.
14. Why do ICDPs fail? The relationship between agriculture, hunting and ecotourism in wildlife conservation. *Resource & Energy Economics* **33**: 55–78, 2011.
15. Wasted waste: an evolutionary perspective on industrial by-products (with J. KRONENBERG). *Ecological Economics* **68**: 3026–3033, 2009.
16. Now or never: Environmental protection under hyperbolic discounting. *Economics: The Open-Access, Open-Assessment E-Journal* **3**: 2009–12, 2009.
17. Optimal dynamic scale and structure of a multi-pollution economy (with S. BAUMGÄRTNER and F. JÖST). *Ecological Economics* **68**: 1226–1238, 2009.
18. Optimal compliance with emission constraints. Dynamic characteristics and the choice of technique. *Environmental & Resource Economics* **39**: 411–432, 2008.
19. Numerical solution of optimal control problems with constant control delays (with U. BRANDT-POLLMANN, S. SAGER, U. MOSLENER and J.P. SCHLÖDER). *Computational Economics* **31**: 181–206, 2008.
20. Introduction to the special issue complexity and ecological economics (with K. FARRELL). *Ecological Complexity* **3**: 265–274, 2006.
21. Heterogeneity and time: From neo-Austrian capital theory to ecological economics (with M. FABER). *American Journal of Economics & Sociology* **65**: 803–825, 2006.
22. Valuation of ecosystem goods and services. Part 1: An integrated dynamic approach. *Ecological Economics* **59**: 82–93, 2006.
23. Valuation of ecosystem goods and services. Part 2: Implications of unpredictable novel change. *Ecological Economics* **59**: 94–105, 2006.
24. Does 'better' discounting lead to 'worse' outcomes in long-run decisions? The dilemma of hyperbolic discounting. *Ecological Economics* **57**: 573–582, 2006.
25. Structural change with joint production of consumption and environmental pollution: a neo-Austrian approach. *Structural Change & Economic Dynamics* **16**: 111–135, 2005.

26. Preisambivalenz von Altpapier. Eine ökonomische Konsequenz der deutschen Abfallgesetzgebung 1985–2000 (with S. BAUMGÄRTNER). *Zeitschrift für angewandte Umweltforschung* **15/16**: 239–255, 2003/2004.
27. Markets, technology and environmental regulation: price ambivalence of waste paper in Germany (with S. BAUMGÄRTNER). *Ecological Economics* **47**: 183–195, 2003.
28. COMBO-FISH: A new approach for specific labeling of non-denatured chromatin targets by computer selected DNA oligo-probe combinations (with M. HAUSMANN, G. HILDENBRAND, J. FINSTERLE, A. WEISEL, A. RAPP, S. JANZ and C. CREMER). *Biotechniques* **35**: 564–577, 2003.
29. Labelling quality and chromosome morphology after low temperature FISH analysed by scanning far-field and near-field optical microscopy (with B. PERNER, A. RAPP, M. DURM, C. CREMER, K.-O. GREULICH and M. HAUSMANN). *Journal of Microscopy* **209**: 22–33, 2003.

Current Working Papers and Manuscripts

30. On the relationship between adaptation and mitigation. *CESifo Working Paper Series No. 10371*, April 2023.
31. A market mechanism for sustainable and efficient resource use under uncertainty (with M. QUAAS). *CESifo Working Paper Series No. 6524*, July 2017.
32. The intricacy of adapting to climate change: Flood protection as a local public goods game (with A. BONDAREV, B. HINTERMANN and F. KRYSIAK). *CESifo Working Paper Series No. 6382*, March 2017.

Work in Progress

33. Meet me at the threshold. Asymmetric preferences in a threshold public goods game (with S. SPYCHER)
34. Rational consumer choice? The case of household food waste (with G. SIPOS).
35. Incentives for technology investments in international climate policy (with A. KULAKOVSKAYA).
36. The optimal design of climate policy in the presence of capital tax competition (with W. HABLA and O. SCHENKER).
37. On the macroeconomics of the quality and quantity of life (with MAIK T. SCHNEIDER).
38. Provision of imperfectly substitutable public goods in a federalist state (with A. BONDAREV, B. HINTERMANN and F. KRYSIAK)
39. Strategic delegation in a standard public goods game (with A. TAVONI).
40. On the optimal design of international environmental agreements (with C. P. TRAEGER).

Unpublished Working Papers and Manuscripts

1. Strategic behavior in IEAs: When and why countries joined the Kyoto Protocol (with C. ALMER). *Working Paper No. 10-14*, Department of Economics, University of Bern, November 2010.
2. Optimal control of pollutants with delayed stock accumulation. *CER-ETH Working Paper No. 08/91*, ETH Zurich, July 2008.
3. On the transition from instantaneous to time-lagged capital accumulation. The case of Leontief-type production functions (with U. BRANDT-POLLMANN, U. MOSLENER and J.P. SCHLÖDER). *Discussion Paper No. 05-30*, Centre for European Economic Research (ZEW), Mannheim, April 2005.
4. Intertemporal efficiency and equity under hyperbolic preferences. Ex ante versus ex post procrastination. *Discussion Paper No. 402*, Department of Economics, University of Heidelberg, January 2004.
5. Price ambivalence on the German waste paper market. Stylized facts and a dynamic model (with S. BAUMGÄRTNER). *Manuscript*, University of Heidelberg, April 2002.

Books

1. *Zeitverzögerte Dynamik von Kapital- und Schadstoffbeständen. Eine österreichische Perspektive (Time-lagged accumulation of capital- and pollution stocks. An Austrian perspective)*. Metropolis, Marburg, 2003

Guest Editor of Peer-Reviewed Journals

2. Special Issue: Complexity and Ecological Economics (with K. FARRELL). *Ecological Complexity* **3(4)**, 2006.

Chapters in Books and Volumes

3. Valuation of ecosystem goods and services. Part 1: An integrated dynamic approach. In C. PERRINGS (Editor): *Ecological Economics. Volume III: Ecosystem Services*. Sage, Los Angeles, 2008.
4. Valuation of ecosystem goods and services. Part 2: Implications of unpredictable novel change. In C. PERRINGS (Editor): *Ecological Economics. Volume III: Ecosystem Services*. Sage, Los Angeles, 2008.
5. Structural change under joint production. In: S. BAUMGÄRTNER, M. FABER and J. SCHILLER, *Joint Production & Responsibility in Ecological Economics*. Edward Elgar, Cheltenham, 2006.
6. Waste paper: price ambivalence (with S. BAUMGÄRTNER). In: S. BAUMGÄRTNER, M. FABER and J. SCHILLER, *Joint Production & Responsibility in Ecological Economics*. Edward Elgar, Cheltenham, 2006.
7. Time lags in capital accumulation (with U. BRANDT-POLLMANN, U. MOSLENER and J.P. SCHLÖDER). In: D. AHR, R. FAHRION, M. OSWALD and G. REINELT (Editors), *Operations Research Proceedings*. Springer, Heidelberg, 2004.

PRESENTATIONS*Invited Seminars and Workshop Contributions*

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| 2023 | University of Graz, Austria; Workshop on Environmental & Energy Economics, University of Bern, Switzerland; LSE, UK. |
| 2022 | ETH Zurich, Switzerland. |
| 2021 | Virtual International Seminar in Environmental and Energy Economics (online); ETH Zurich, Switzerland (online); University of Graz, Austria (online), Universidad Carlos III, Madrid. |
| 2020 | International Workshop on Energy, Innovation, and Growth: Theory and Empirics, ETH Zurich, Switzerland (online). |
| 2018 | University of Oslo, Norway; University of Munich (LMU), Germany; Ausschuss Umwelt- und Ressourcenökonomik, Münster, Germany. |
| 2017 | University of Munich (LMU), Germany; LSE, UK; University of Bath, UK. |
| 2016 | University of Gothenburg, Sweden. |
| 2015 | LSE, UK. |
| 2014 | ETH Zürich, Switzerland; University of Graz, Austria; University of Hamburg, Germany. |
| 2013 | Ausschuss Umwelt- und Ressourcenökonomik, ETH Zürich, Switzerland; University of Freiburg, Germany; University of Graz, Austria; Graduate Institute Geneva, Switzerland. |
| 2012 | University of Innsbruck, Austria; University of Münster, Germany; Ausschuss Umwelt- und Ressourcenökonomik, University of Wageningen, The Netherlands. |
| 2011 | Workshop 'Optimal Control and Economics', University of Heidelberg, Germany; Ausschuss Umwelt- und Ressourcenökonomik, University of Linz, Austria. |
| 2010 | University of Basel, Switzerland; NCCR Climate Summer School 'Adaptation and Mitigation: Responses to Climate Change', Grindelwald, Switzerland; University of Munich (LMU), Germany |
| 2009 | University of Leipzig, Germany. Workshop 'Ambiguity, Uncertainty, and Climate Change', UC Berkeley, USA; 7 th Conference on Environment and Resource Economics, Toulouse, France; University of Kiel, Germany; Ausschuss Umwelt- und Ressourcenökonomik, University of Vienna, Austria. |

- 2008 Workshop 'Natural Resource Management and Dynamic Optimization', University of Gerona, Spain.
- 2007 NCCR Workshop 'Uncertainty and Discounting in Integrated Assessment Models', University of Bern, Switzerland; University of Lüneburg, Germany.
- 2006 University of Basel, Switzerland.
- 2005 ETH Zurich, Switzerland. Umweltforschungszentrum Leipzig (UFZ), Germany; Queen's University Belfast, UK.
- 2004 Keele University, UK; University of Kiel, Germany.

Papers at International Conferences with Peer-Review Selection

- 2023 EAERE, Limassol, Cyprus*; Verein für Socialpolitik, Regensburg, Germany*.
- 2022 EAERE, Rimini, Italy; Environmental Protection and Sustainability Forum, Graz, Austria;
- 2021 Verein für Socialpolitik, Regensburg, Germany (online)*.
- 2020 EAERE, Berlin, Germany (online)*; CESifo Area Conference "Energy & Climate Economics", Munich, Germany (online); SURED, Ascona, Switzerland (online)*.
- 2019 EAERE, Manchester, UK.
- 2018 CESifo Area Conference "Energy & Climate Economics", Munich, Germany; WCERE, Gothenburg, Sweden.
- 2017 CESifo Area Conference "Energy & Climate Economics", Munich, Germany.
- 2016 SURED, Banyuls sur mer, France; EAERE, Zurich, Switzerland; EEA, Geneva, Switzerland*.
- 2015 Environmental Protection and Sustainability Forum, Bath, UK; Conference on The Economics of Energy and Climate Change, Toulouse, France*.
- 2014 WCERE, Istanbul, Turkey.
- 2013 EAERE, Toulouse, France; ESEM, Gothenburg, Sweden*; Verein für Socialpolitik, Düsseldorf, Germany*.
- 2012 ASSA/ES North American Winter Meeting, Chicago, USA*; AERE, Ashville, USA*.
- 2011 Environmental Protection and Sustainability Forum, Exeter, UK*; Conference 'Climate Economics and Law', Bern, Switzerland*; EAERE, Rome, Italy*; IIPF, Ann Arbor, USA*; ESEM, Oslo, Norway*.
- 2010 EALE, Paris, France*; Verein für Socialpolitik, Kiel, Germany; WCERE, Montréal, Canada; SURED, Ascona, Switzerland.
- 2009 Verein für Socialpolitik, Magdeburg, Germany; ESEM, Barcelona, Spain; Conference 'The international Dimensions of Climate Policies', Bern, Switzerland.
- 2008 Verein für Socialpolitik, Graz, Austria; ESEM, Milan, Italy*; EEA, Milan, Italy; EAERE, Gothenburg, Sweden; 3rd Atlantic Workshop on Energy and Environmental Economics, A Toxa, Spain*; AFSE, Toulouse, France*; SURED, Ascona, Switzerland.
- 2007 Verein für Socialpolitik, Munich, Germany; EEA, Budapest, Hungary*; EAERE, Thessaloniki, Greece*; ESEE, Leipzig, Germany*.
- 2006 SURED, Ascona, Switzerland.
- 2005 EAERE, Bremen, Germany.
- 2004 EEA, Madrid, Spain; ISEE, Montréal, Canada; EAERE, Budapest, Hungary; SURED, Ascona, Switzerland.
- 2003 German Operations Research Society (GOR), Heidelberg, Germany; Society of Environmental Toxicology and Chemistry (SETAC), Heidelberg, Germany; ESEE, Tenerife, Spain.
- 2002 ISEE, Sousse, Tunisia.

'*' denotes papers presented by co-authors