CURRICULUM VITAE

Dr. Stefan Behringer

CITIZENSHIP: German

STATUS: Married to Nicole Behringer LL.M.

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POSITIONS:

2021-	Member Value of Information Group, Universität Bielefeld.
2017-2020	Lecturer, Department of Economics, Institut d'études politiques (Sciences Po); Covid-19.
2013-2017	Member of the Chair for Managerial Economics, University Duisburg-Essen.
2012-2013	Acting Professor of Economics, Wirtschaftstheorie II, Universität Heidelberg.
2010-2011	Acting Professor of Economics, Wirtschaftstheorie III, Universität Bonn.
2009-2010	Acting Professor of Economics, (Lehrstuhlvertreter), Mikroökonomie, Johannes Gutenberg-Universität Mainz.
2004-2009	Assistant Professor, interdisciplinary Project on Electronic Commerce and Internet Economics, Goethe Universität Frankfurt.

GRADUATE STUDIES:

1998-2004	Doctorate „Essays in Applied Microeconomic Theory“ Universität Mannheim (Prof. Hellwig).
2000	Institut d'Economie Industrielle, IDEI , Université des Sciences Sociales Toulouse.
1996-1998	The London School of Economics and Political Science, London. M.Sc. Economics.
1995-1996	Universität Hamburg and Groupement de Recherche en Économie Quantitative d'Aix-Marseille (GREQAM) Université Aix-Marseille. MA. Law & Economics.

UNDERGRADUATE STUDIES:

1992-1995	BA. Philosophy, Politics, & Economics, University of York, first class honours.

PROFESSIONAL EXPERIENCE:

2025	Programme Committee, 8th International Conference on the Dynamics of Information Systems, London. https://dis2025.ujep.cz/
2015-2017	Co-Chair Harvesting Streams, Viennese Workshops on Optimal Control and Dynamic Games.
2015	Lecturer at the International Summer School on Economic Growth and Governance of Natural Resources, Department of Optimal Control, Lomonosov Moscow State University.
2013	Organization of the International Workshop “Renewable resources, Sustainability, and Search”, Heidelberg, with DFG Grant for Cooperation with the Russian Federation.
2003-2004	Universität Mannheim, Economic Theory Chair, Coordinator for Mikroökonomie.
1998	The London School of Economics, Teacher Economics Summer School.
1997-1998	The London School of Economics, Suntory-Toyota Centre for Economics, STICERD.
1997-1998	Deutsche Morgan Grenfell, London.

HONOURS and SCHOLARSHIPS:

2023	Sachmittelantrag DFG “Value of Shannon’s Information” (declined)
2013	Cooperation Grant of DFG, Bonn with Russian Federation, with Thorsten Upmann.
2009	NET Institute Grant, New York with Lapo Filistrucchi.

1998-2001	Doctoral Scholarship of DFG, Bonn.
2000	Marie-Curie Fellowship of the European Community.
1996-1998	Graduate Studentship, The London School of Economics.
1998	Best Thesis Award, Universität Hamburg.
1993-1994	Scholarship from University of York.

REFEREEING: As partly documented on Publons https://publons.com/researcher/3820118/stefan-behringer/ as well as for DIS 2025 London, the IIASA YSS Programme, and the Springer Series: Dynamic Modelling and Econometrics in Economics and Finance, and others. External PhD Referee: Olena Senyuta, CERGE Prague, and DFG German Science Foundation.

PRESENTATIONS:

2026	École Nationale des Ponts et Chaussées, (Ponts ParisTech) CERMICS, Paris, Entropy Group Université de Caen, DIS26 Prag (Programme Committee), Oligo 26, Pisa (scheduled).
2025	The 8th International Conference on the Dynamics of Information Systems (DIS 2025).
2024	MaxEnt24 Ghent University.
2023	MaxEnt23 Max-Planck Institut für Plasmaphysik TU Munich, Garching, OR23 Hamburg.
2022	Viennese Workshop on Optimal Control and Dynamic Games, MaxEnt22, IHP Paris (co-author)
2021	Oligo 21 Maastricht, EURO 2021, Athens, (all virtual); Covid-19.
2018	International Conference dedicated to 110th anniversary of Lev Pontryagin, Steklov, Moscow.
2017	Oligo Workshop Moscow, 1st Scienvir International Conference Iasi, VfS Meeting Vienna.
2016	Paris School of Economics; EAERE Zurich; VII Workshop on Institutions, Individual Behaviour, and Economic Outcomes, Alghero, Workshop "Heterogeneous Dynamic Models of Economic Systems", Vienna.
2015	Paris Environmental and Energy Economics Seminar; GERAD Seminar HEC Montreal, Natural Resource Economics Seminar McGill University Montreal; MPI Bonn; French Symposium on Games, Paris; World Conference on Natural Resource Modelling 2015 Bordeaux; 13th Viennese Workshop on Optimal Control and Dynamic Games, Vienna; International Workshop "Natural Resources, Environment, and Economic Growth, St. Petersburg, Russia; CERGE Seminar Prague.
2014	7th ICT Conference at Paris Tech; 5th GERAD Workshop "Game Theory in Energy, Resources, and the Environment", Saint-Nicolas la Chapelle; Workshop "Industrial Organization", Alberobello, LUISS Faculty Seminar, Rome; UECE Lisbon Meetings; Workshop "Antitrust for Platform and Network Markets", Paris-Nanterre, Business Economics & Strategy Seminar, Tel Aviv.
2013	4th SEARLE Conference on Internet Search and Innovation, Northwestern, Chicago. International Conference Mathematical Control Theory and Mechanics, Suzdal, Russia; SIRE Conference on "Finance and Commodities", St. Andrews, Scotland; International Workshop "Natural Resources, Environment, Urban Economics, International Trade, and Industrial Organization, St. Petersburg, Russia; Workshop "Heterogeneous Dynamic Models of Economic Systems", Vienna. Workshop "Renewable resources, Sustainability, and Search", Heidelberg; Sustainable Economic Development Seminar, Ecole Polytechnique, Paris.
2012	11th Journées Louis-André Gérard-Varet, Marseille; CRESSE, Crete; EARIE, Rome; LERNA; "The Economics of Irreversible Choices", Brescia, IIASA Conference, Vienna; U Bielefeld; Ecole Polytechnique, Theory Thursdays.
2011	CEME/NSF Decentralization Conference, Ohio State University, University of Michigan; MPI Bonn; DICE Düsseldorf; Ecole Polytechnique, IO Seminar; Paris School of Economics, Paris; RWTH Aachen, VWL Forschungsseminar.
2010	CEME/NSF Decentralization Conference, UC Dublin; NET Institute Conf., NYU, New York.
2009	5th Conference on the Economics of the Software and Internet Industries, IDEI, Toulouse.
2008	6th ZEW Conference: The Economics of Information, Mannheim.
2007	Econometric Society, Budapest; 5th Workshop on Media Economics, Bologna.
2006	Competition Policy on Two-sided Markets, IDEI, Toulouse; Public Economic Theory, Hanoi; European Economic Association, Vienna; Econometric Society, Vienna.

TEACHING:

Autumn 2018-	Microeconomics: Information, Design, and Institutions, SciencesPo.
Spring 2017	Game Theory and Applications, SciencesPo.
WS 2012/13	Einführung in die Volkswirtschaftslehre (Bachelor), Seminars: Theory and Policy of Telecommunication Industries, Incentives in Public Decision Making, Antitrust and Regulation und Asymmetric Information (Master) Universität Heidelberg.
SS 2012	Industrieökonomie, (Bachelor), Game Theory, (Master) Universität Heidelberg.
WS 2010/11	Mikroökonomik A, Universität Bonn.
WS 2009/10	Mikroökonomie II, Industrieökonomie, (Bachelor) Mikroökonomie III, Game Theory and Applications, (Diploma/Master) Universität Mainz. Seminar: Theory and Policy of Telecommunication Industries.
SS 2009	Mikroökonomie I, (Bachelor) Universität Mainz.
WS 2004/05	TA for Game Theory, Seminar on Two-sided Markets (Master), Universität Frankfurt.

REFERENCES and EVALUATIONS: available on demand.

PUBLICATIONS:

Anita, S., Behringer, S., Mosneagu, A.-M., & Upmann, T. (2019): Optimal Harvesting of a Spatially Distributed Renewable Resource with Endogenous Pricing", *Mathematical Modelling of Natural Phenomena*, 14, 101, p.1-13.

Anita, S., Behringer, S., Mosneagu, A.-M., & Upmann, T. (2017): "Cournotian Dynamics of Spatially Distributed Renewable Resources", arXiv:1706.05930 [math.OC], http://arxiv.org/abs/1706.05930.

Arbex, M., Behringer, S. & Trudeau, C. (2017): "Optimal tax policy under heterogeneous environmental preferences, *Economics Letters*, 157, p.79-82.

Baranes, E., Behringer, S. & Poudou, J.-C. (2017): "Mobile Access Charges and Collusion under Asymmetry", *Annals of Economics and Statistics / Annales de l'INSEE*, No. 127 September, p.33-60.

Stefan Behringer & Roman V. Belavkin (2026): "The Value of Information in Bayesian Environments", in Moosaei, H., Belavkin, R., Pardalos, P.M. (eds) Dynamics of Information Systems: DIS 2025. Lecture Notes in Computer Science, vol 15940. Springer, Cham.

Stefan Behringer & Roman V. Belavkin (2025): "The Value of Information in Economic Contexts", *Physical Science Forum*, 12(1), 6.

Behringer, S. & Belyakov, A. (2016): "A Survey on Maintenance, Replacement, and Chains of Machines in Management", International Young Scientists School "Modelling and Optimization of Complex Systems", *Mat. Inst. Steklova*, p. 17-23.

Behringer, S. (2021): "Multiplicative Normal Noise and Nonconcavity in the Value of Information", *Theoretical Economics Letters*, Vol 11, p.116-124.

Behringer, S. (2016): "Product Repositioning in the UK Newspaper Industry", *Theoretical Economics Letters*, Vol. 6, p.986-999. DOI: 10.4236/tel.2016.65099

Behringer, S. & Filistrucchi, L. (2015): "Areeda-Turner in Two-Sided Markets", *Review of Industrial Organization,* Vol. 46, p.287-306.

Behringer, S. & Filistrucchi, L. (2015): "Hotelling Competition and Differentiation with more than two Newspapers", *Information Economics and Policy*, Vol. 30, p.36-49.

Behringer, S. (2014): "Price Competition between Platforms: The Case of eBay vs. Yahoo! Auctions", in *The Analysis of Competition Policy and Sectoral Regulation*, CRESSE, eds. Peitz, M. and Spiegel, Y. World Scientific.

Behringer, S. & Upmann, T. (2014): "Optimal Harvesting of a Spatial Renewable Resource", *Journal of Economic Dynamics and Control*, Vol. 42, p.105-120.

Behringer, S. (2013): "Network Effects, Spillovers, and Market Structure", *The Manchester School*, Vol. 82, No. 2, p.143-159.

Behringer, S. (2012): "Asymmetric Equilibria and Competitive Access Pricing in the Telecommunication Industry", *Int. J. Management and Network Economics*, Vol. 2, No.3, p.257-281.

Behringer, S. (2009): "Entry, access pricing, and welfare in the telecommunications industry", *Economics Letters*, 101, p.185-188.

Upmann, T. & Behringer, S. (2020): "Harvesting a Remote Renewable Resource", *Theoretical Ecology*, 13, p.459-480.

WORK IN PROGRESS:

Hard Constraints, Convex Duality, and the Endogenous Cost of Information The rational inattention literature employs two formulations of information costs: a hard constraint bounding mutual information by a Shannon capacity, and a soft constraint penalising mutual information by a linear entropy penalty. We establish the structural relationship between these formulations via convex duality theory and develop its consequences. First, the hard-constraint value function, the Stratonovich/Shannon Value of Information (VoI), is the primitive object of rate distortion theory. The soft-constraint objective is its Fenchel conjugate, recoverable without parametric restriction, and the marginal cost of information is identified endogenously as the slope of the VoI; the linear entropy penalty is therefore a special case, not a maintained assumption. Second, the VoI generically depends on the full posterior distribution; it collapses to a function of posterior variance alone if and only if utility is quadratic, the prior is Gaussian, and optimal signals preserve conjugacy, three jointly necessary conditions. Third, the optimal signal distribution takes an exponential form and generates a class of convex risk measures; in a portfolio application, tail risk substantially amplifies information value relative to a mean-variance equivalent benchmark, a distinction that variance-based analysis cannot detect. Previously: **Information Costs and Risk: A Unified Framework**. (submitted)

Value of Information Based Risk Measures: Theory and Applications. We introduce a novel class of risk measures derived following the Value of Information (VoI) framework of Stratonovich (1975/2020) that explicitly incorporates information acquisition costs. The VoI risk measure generalizes the classical entropic risk measure by capturing aversion to both risk and uncertainty, with information capacity as an endogenous choice. We prove that this measure can be expressed as an expected entropic risk measure and establish that it is coherent in the extended sense of Rockafellar (2007). The measure satisfies monotonicity, convexity, and closedness, though it fails positive homogeneity due to its information-theoretic structure. We demonstrate how the VoI risk measure emerges as the Legendre-Fenchel transform of the value function, providing a geometric interpretation of the information-utility trade-off. Applications to CARA and CRRA utility functions reveal distinctive properties, including a remarkable invariance property for logarithmic utility with exponential priors. Our framework provides a foundation for risk assessment in settings with costly information acquisition and bounded rationality.

Value of Information in Bayesian Environments. (with Roman V. Belavkin, Middlesex University London). The Value of Information (VoI) framework, developed by Ruslan Stratonovich, bridges Claude Shannon's information theory with economics, particularly utility and decision theory. This paper revisits the VoI concept in the Boolean utility setting of hypothesis testing and then extends the discrete Bayesian VoI framework to more general decision contexts with arbitrary utility matrices. We also provide a method to compute a robust VoI estimate that is independent of input distributions.

The Value of Information and Circular Settings. (with Roman V. Belavkin, Middlesex University) We present a universal concept for the Value of Information (VoI) based on Claude Shannon's information and work of Ruslan Stratonovich that has desirable properties for Bayesian decision theory and demand analysis. The Shannon/Stratonovich VoI concept is compared to the concept of Hartley VoI and applied to an epitome economic application of a circular setting generalizing an example of Stratonovich and allowing for a network structure and an investigation of various economic transport cost. arXiv 2023 https://arxiv.org/abs/2303.16126

Value of Information in Zero-sum Games. By the Minimax Theorem of von Neumann and Morgenstern, Zero-Sum games are known to have a value, the expected value to one of the players when both play an optimal strategy. In the following we model Zero-Sum games being played by rationally inattentive players, i.e. each player faces a hard information/entropy constraint as in Sims. The resulting game reveals an enlarged set of optimal randomized mixed strategies and can be shown to have an Informational Value which is a measure of the informational robustness of the game. In an example the randomized equilibria (which do not exist when information constraints are slack) are derived, the geometric properties of the Value of information investigated and the Informational Value calculated. New 29.09.2023

Expanding Multi-Market Monopoly and Nonconcavity in the Value of Information. In this paper I investigate a Bayesian inverse problem in the specific setting of a price setting monopolist facing a randomly growing demand in multiple possibly interconnected markets. Investigating the Value of Information of a signal to the monopolist in a fully dynamic discrete model employing the Kalman-Bucy-Stratonovich filter, we find that it may be non-monotonic in the variance of the signal. In the classical static settings of the Value of Information literature this relationship may be convex or concave, but is always monotonic. The existence of the non-monotonicity depends critically on the exogenous growth rate of the system. arXiv 2021 https://arxiv.org/abs/2111.00839.

Direct Provision of a Public Good with Many Agents. The literature on the private provision of public goods suggests a proportional relationship between incentives to free-ride and group size. However recent empirical research and casual observation of modern information technologies suggests otherwise. This paper purports a solution to the apparent paradox within a mechanism design framework tailored to modular developments within these technologies and provides a positive limit result as the number of agents gets large.

Public Good Provision with Many Agents and a k_n-Success Technology. (With Yukio Koriyama, Ecole Polytechnique). In this paper, we consider a class of public good provision problems in which the production function takes the form of k_n-success technology, an extension of the direct provision technology considered in Behringer (2013). These models are suitable to describe the free-rider problems in which there are a large number of agents who are both users and beneficiaries of a public good at the same time, e.g. open-source software or social networks. We provide results on asymptotic efficiency which connect a negative result of Mailath and Postlewaite (1990) and a positive result of Hellwig (2003), as well as a set of simple examples which allow us welfare comparisons with the standard technologies.

Price Wars in Two-Sided Markets: The case of the UK Quality Newspaper Industry (joint with Lapo Filistrucchi, Tilburg University). This paper investigates the price war in the UK quality newspaper industry in the 1990s. We show that the empirical evidence is in accordance with a substantial change in the optimal finance mix of newspapers as advertising becomes the dominant source of newspaper revenue. The evidence brought forward at the time is not sufficient to establish a case of predatory pricing as it has neglected the critical two-sidedness of firms and necessitates further study.

Frankfurt am Main, 22.04.2026