

Curriculum Vitæ

Dustin Lazarovici

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Université de Lausanne
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Employment

- 2017-present Graduate assistant (assitant diplômé). Department of Philosophy, Université de Lausanne (UNIL), Switzerland. Director: Michael Esfeld.
- 2016-2017 Post-Doctoral fellow. Department of Philosophy, Université de Lausanne (UNIL), Switzerland. Supported by a Feodor Lynen Research Fellowship of the Alexander von Humboldt Foundation. Director: Michael Esfeld.

Education

- 2017-present PhD student. Department of Philosophy, Université de Lausanne (UNIL), Switzerland. Project: Typicality as a way of reasoning in science and metaphysics. Supervisor: Michael Esfeld.
- 2015 Dr. rer. nat. (*summa cum laude*), Mathematics, LMU Munich
Title of dissertation: "Mean field limits for charged particles". Supervisor: Detlef Dürr.
- 2011 Diploma (with distinction), Mathematics, LMU Munich
- 2011 Diploma (with distinction), Physics, LMU Munich

Research Interests

- Philosophy of Physics: Relativity and Nonlocality, Ontology of Quantum Mechanics, Foundations of Statistical Mechanics, Arrow of Time
- Philosophy of Science: Laws of Nature, Probabilistic and Non-Causal Reasoning
- Metaphysics: Space and Time, Primitive Ontology, Modality

Grants and Scholarships

- 2016–2017 Feodor Lynen Research Fellowship of the Humboldt Foundation
- 2015 Research Grant by the Cogito Foundation.
Project: „The fundamental ontology of the natural world“. Director: Michael Esfeld
- 2012–2015 PhD Scholarship, Studienstiftung des deutschen Volkes
(German Academic Scholarship Foundation)
- 2011–2012 Young Researcher Scholarship of the Parmenides Foundation
- 2005–2011 Scholarship of the Studienstiftung des deutschen Volkes

Academic Stays and International Experience

- April 2012 Rutgers University, NJ. COST short-term scientific mission. Host: Sheldon Goldstein
- 2007-2008 McGill University, Montreal, Canada. Visiting Student

Publications

Books

- Detlef Dürr and Dustin Lazarovici: *Verständliche Quantenmechanik. Drei mögliche Weltbilder der Quantenphysik.* (Textbook on foundations of quantum mechanics in German.) Forthcoming from Springer-Spektrum.
- Contributions to: Michael Esfeld and Dirk-André Deckert: *A minimalist ontology of the natural world.* Routledge Studies in the Philosophy of Mathematics and Physics. Forthcoming from Routledge.

Peer-Reviewed Journal Articles

- “Against Fields,” *European Journal for Philosophy of Science* (2017). DOI: 10.1007/s13194-017-0179-z
- Michael Esfeld, Dustin Lazarovici, Vincent Lam, and Mario Hubert: “The Physics and Metaphysics of Primitive Stuff,” *British Journal for the Philosophy of Science* 68 (2017), pp. 131-168. DOI: 10.1093/bjps/axv026
- Dustin Lazarovici and Peter Pickl: “A mean-field limit for the Vlasov-Poisson system,” *Archive for Rational Mechanics and Analysis* 225(3) (2017), pp. 1201-1231. DOI:10.1007/s00205-017-1125-0
- “The Vlasov-Poisson dynamics as the mean-field limit of extended charges,” *Communications in Mathematical Physics* 347(1) (2016), pp. 271-289. DOI: 10.1007/s00220-016-2583-1
- Andrea Oldofredi, Dustin Lazarovici, Dirk-André Deckert and Michael Esfeld: “From the universe to subsystems: Why quantum mechanics appears more stochastic than classical mechanics,” *Fluctuations and Noise Letters* 15:03 (2016). DOI: 10.1142/S0219477516400022
- Dustin Lazarovici and Paula Reichert: “Typicality, Irreversibility and the Status of Macroscopic Laws,” *Erkenntnis* 80 (2015), pp. 689-716. DOI: 10.1007/s10670-014-9668-z
- “A relativistic retrocausal model violating Bell’s inequality,” *Proceedings of the Royal Society A* 471 (2015). DOI: 10.1098/rspa.2014.0454
- Michael Esfeld, Dustin Lazarovici, Mario Hubert, and Detlef Dürr: “The ontology of Bohmian mechanics,” *The British Journal for the Philosophy of Science* 65(4) (2014), pp. 773-796. DOI: 10.1093/bjps/axt019

Articles in Books and Conference Proceedings

- “Relativistic Interactions and the Structure of Time,” in: A. von Müller, T. Filk (eds.), *Re-Thinking Time at the Interface of Physics and Philosophy.* On thinking Vol. 4, Springer (2015).
- “Lost in Translation: A Comment on ‘Noncommutative Causality in Algebraic Quantum Field Theory,’” in: Galavotti et.al. (eds.), *New Directions in the Philosophy of Science. The Philosophy of Science in a European Perspective,* Vol. 5, Springer (2014).
- Detlef Dürr and Dustin Lazarovici: “Quantenphysik ohne Quantenphilosophie,” in: M. Esfeld (ed.), *Philosophie der Physik.* Suhrkamp, Berlin (2012), pp. 110-134.
- Detlef Dürr and Dustin Lazarovici: “Der Dialog des Demokrit,” in: J. Nida-Rümelin and E. Özmen (eds.), *Welt der Gründe. Proceedings des XXII. Deutschen Kongresses für Philosophie,* Meiner Verlag (2012), pp. 1207-1217.

Preprints and Other Publications

- “A particle approximation for the relativistic Vlasov-Maxwell dynamics.” (2016) Preprint: arXiv:1602.07251
- “Time Evolution in the external field problem of Quantum Electrodynamics.” Diploma thesis, LMU München (2011). Online version: arXiv:1310.1778

Book Reviews

- Review of Shan Gao’s *The Meaning of the Wave Function.* Forthcoming in: *International Studies in the Philosophy of Science*

Works in Progress

- Structural Spacetime Monism
- Arrow of Time without a Past Hypothesis (with Paula Reichert)
- Reconciling Nonlocality and Relativity: Bohmian Models
- Typicality and the Metaphysics of Laws
- Who's afraid of action-at-a-distance? (with Mario Hubert)

Teaching Experience

Graduate courses taught

Seminar: Foundations of Mathematics for teacher trainees. LMU Munich, 2012 – 2014

Teaching Assistant with participation in teaching

Philosophy, Epistemology and History of Science. EPFL / UNIL Lausanne, 2016 – present

Invited Lectures

School: Fundamental Problems of Quantum Physics. ICTS Bangalore, 2016 (4 lectures)

Guest Lecture “The De-Broglie Bohm Theory.” Advanced Philosophy of Physics, MCMP Munich, 2014 (1 lecture)

Guest Lecture “The De-Broglie Bohm Theory.” Advanced Philosophy of Physics, MCMP Munich, 2013 (1 lecture)

Teacher Training: Mathematical Foundations of Quantum Mechanics. MFO Oberwolfach, 2012 (3 lectures)

Short Courses and Workshops taught

Working group: “Primitive Ontology of Matter and Laws.” 5th International Summer School in Philosophy of Physics. Saig, 2017

Working group: “Typicality as the foundation of probabilities in physics.” 2nd International Summer School in Philosophy of Physics. Saig, 2014

Discussion group: “Bell’s Theorem.” Summer School Foundations of Quantum Mechanics. Sesto, 2014

Working group: “Entropy and the Arrow of Time.” Summer School Physics and Philosophy of Time. Saig, 2013

Teaching Assistant

Seminar: The ontology of physics. LMU Munich, 2015

Analysis I. LMU Munich, 2011

Tutoring

Various undergraduate courses in mathematics. LMU Munich, 2005-2011

Selected Talks

Against Fields

EPSA 17, Exeter, 2017

ECAP9, Munich, 2017

BSPS Annual Meeting, Edinburgh, 2017

Spacetime is One Whole – Priority Monism meets Structural Realism

SMS 3rd Annual Conference, New York, 2017

Tübingen Master Class with Jonathan Schaffer, Tübingen, 2017

The 91st Joint Session of the Aristotelian Society, Edinburgh, 2017

Thermodynamic Arrow without a Past Hypothesis

Conference: The Second Law, MCMP Munich, 2017

Relativity, Nonlocality and the Consequences
SILFS 2017, Bologna, 2017

A mean field limit for the Vlasov-Maxwell system
Autumn School Mathematical Foundations of Physics, LMU Munich, 2016

The wave function in a relativistic world
4th international summer school in philosophy of physics, Saig, 2016

Mean field limits for charged particles
Seminar Applied Analysis, Marseille, 2016

A Time-symmetric Relativistic Model Violating Bell's Inequality
Conference: Free Will and Retrocausality in a Quantum World, Cambridge, 2014
Workshop: Is quantum theory exact? Laboratori Nazionali di Frascati, 2014

Are 'macroscopic laws' laws? - Typicality as the basis for statistical reasoning in physics
Workshop: Reduction and Emergence in Physics, MCMP & CAS, Munich, 2013

What are Quantum States?
Workshop: The metaphysics of contemporary physics, Lausanne, 2012

Commenting

Commentator for Neil Dewar "Algebraic Structuralism"
SMS 3rd Annual Conference, New York, 2017

Commentator for Gabor Hofer-Szabo "Noncommutative Causality in Algebraic Quantum Field Theory"
Workshop: The metaphysics of contemporary physics, Lausanne, 2012

Service to the Profession

Public Lectures

Das mathematische Kontinuum und die Paradoxien des Zenon. Mathematik am Samstag, LMU Munich, 2012

Selection Committee

Selection Seminar of the German Academic Scholarship Foundation. (2012, 2014, 2015, 2017)

Journal Referee

Communication in Mathematical Physics
Erkenntnis
European Journal for Philosophy of Science
Fluctuations and Noise Letters
Foundations of Physics
Journal of Physics A
Philosophy of Science

Further Services

Session chair. Joint Session of the Aristotelian Society, Edinburgh, 2017
Roundtable discussion chair. The Autumn School Mathematical Foundations of Physics, LMU Munich, 2016
IT-Devices Manager. Workshop Mathematical Foundations of Physics. LMU, Munich, 2013-2014

Professional Affiliations

The Aristotelian Society
The British Society for the Philosophy of Science (BSPS)
European Philosophy of Science Association (EPSA)

Languages

German (native speaker)

English (near native)

Romanian (fluent in speaking)

French (very good command)

Italian (basic skills)