Pieter Thyssen

My Worldline

Center for the Philosophy
of Science and Society
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'₾ PhilPeople Profile
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"C'est la dissymétrie qui crée le phénomène" - Pierre Curie

Primary Academic Positions

- 2021–2024 **Postdoctoral researcher** (Chargé de Recherches FNRS) at the Center for the Philosophy of Science and Society, *UCLouvain*, Belgium.
- 2020–2021 **Project coordinator** at the Institute for the Future, *KU Leuven*, Belgium.
- 2013–2014 **Postdoctoral researcher** at the Department of Chemistry, KU Leuven, Belgium.

Academic Research Stays and Visiting Positions

- Jan 2024 **Visiting Scholar** at the *Department of History and Philosophy of Science* at Cambridge University during the Lent term to collaborate with Prof. Hasok Chang on the isotope controversy between Paneth, Hevesy and Fajans, *scheduled*, Cambridge, UK.
- Oct 2023 **Visiting Scholar** at the *Department of Philosophy* at Durham University for the Michaelmas term to collaborate with Prof. Robin Hendry on natural kind essentialism, *scheduled*, Durham, UK.
- Jul 2023 **Visiting Scholar** at the *Philosophy of the Sciences Group* at the Universidad de Buenos Aires to collaborate with Prof. Olimpia Lombardi on ontological pluralism, *scheduled*, Buenos Aires, Argentina.
- Aug 2022 **Visiting Scholar** at Coburg University to collaborate with Prof. Klaus Ruthenberg on the historical role of Friedrich Paneth in the isotope controversy, Coburg, Germany.
- Jun 2017 **Visiting Scholar** at the *Department for the Philosophy of Physics* at Oxford University to collaborate with Prof. Harvey Brown on temporal becoming in an eternalist block universe, Oxford, UK.
- Sep 2008 **Visiting Scholar** at the *Chemical Heritage Foundation* (CHF) to perform historical research in the Othmer Library on the accommodation of the rare-earth elements in the periodic table, Philadelphia, Pennsylvania.

Education

2014–2020 PhD in Philosophy of Physics, KU Leuven, Belgium.

Supervisor: S. Wenmackers

Committee: G. Ramsay, J. Heylen, V. Gijsbers

Title: The Block Universe: A Philosophical Investigation in Four Dimensions

2009–2013 PhD in Chemistry, KU Leuven, Belgium.

Supervisors: K. Binnemans, A. Ceulemans

Committee: P. Geerlings, M. Hendrickx, J. Indekeu, O. Lombardi, C. Maes

Title: Symmetry and Symmetry Breaking in the Periodic Table: Towards a Group-Theoretical Classification of the Chemical Elements

2007–2009 **MSc in Chemistry**, *KU Leuven*, Belgium.

Supervisors: K. Binnemans, G. Vanpaemel Committee: A. Ceulemans, M. Hendrickx

Title: A Historical Analysis from 1869 to the Present of the Position of the Rare Earths in the Periodic Table

2004–2007 BA in Chemistry, KU Leuven, Belgium.

Contact Details of Referees

(1) Prof. dr. S. Wenmackers, Center for Logic and Philosophy Science, KU Leuven, Belgium.

Address: Institute of Philosophy, Kardinaal Mercierplein 2, box 3200, 3000 Leuven

Phone: +32 (0) 16 37 69 29

E-mail: sylvia.wenmackers@kuleuven.be

(2) Em. prof. dr. A. Ceulemans, Quantum Chemistry and Physical Chemistry, KU Leuven, Belgium.

Address: Department of Chemistry, Celestijnenlaan 200F, box 2404, 3001 Leuven

Phone: +32 (0) 16 32 73 63

E-mail: arnout.ceulemans@kuleuven.be

(3) **Prof. dr. O. Lombardi**, *Philosophy of the Sciences Group, Universidad de Buenos Aires*, Argentina. Address: Facultad de Filosofía y Letras, Puan 480, C1420 CABA, Argentina

E-mail: olimpiafilo@gmail.com

Research Interests

- History of Discovery of radioactivity and isotopy; Soddy, Aston and Paneth; particle physics and the eightfold Physics way; history of quantum mechanics; Heisenberg.
- History of Mendeleev and the periodic table; 19th century atomism vs. anti-atomism; rare-earth elements;

Chemistry concepts of acidity; the discovery of chemical elements.

- Foundations Ontologies of time; direction of time; temporal becoming; Rietdijk-Putnam-Maxwell argument;
 - of Physics foundations of special relativity; time travel; retrocausation; symmetry and symmetry breaking.
- Foundations Group theory of the periodic table; Madelung rule and period doubling; concepts of chemical element;
- of Chemistry natural kinds; microstructural essentialism; reduction of chemistry to physics vs. emergence.
- Metaphysics Metaphysics of laws; anti-Humeanism; Platonism; free will.

Organisation of Scientific Conferences

2018 **2nd Leuven-Buenos Aires Workshop on the Philosophy of Physics and Chemistry**, 22–23 July, 2018, KU Leuven (Belgium), Co-organizer.

https://hiw.kuleuven.be/clps/events/agenda/2nd-leuven-bueonos-aires-workshop

- 2017 The Theoretical Minimum: Einstein's Block Universe (Lecture Series on the Philosophy of Physics), 6 days, KU Leuven (Belgium), Co-organizer. https://www.theoretischminimum.be
- 2016 1st Leuven-Buenos Aires Workshop on the Philosophy of Physics and Chemistry, 26–27 July, 2016, KU Leuven (Belgium), Co-organizer.

https://hiw.kuleuven.be/claw/events/agenda/workshop-philosophy-of-physics

- 2012 **16th ISPC Summer Symposium of the International Society for the Philosophy of Chemistry**, *7–11 August*, *2012*, KU Leuven (Belgium), Co-organizer.
 - https://sites.google.com/site/ispc2012/home
- 2012 **Lecture Series for the International Year of Chemistry:** Lecture by P. W. Atkins (Oxford University, UK) on "The Limits of Science", 7 *November, 2012*, KU Leuven (Belgium), Co-organizer.
- 2011 **Res Metallica Symposium:** The Periodic Table of Mendeleev, *4 May, 2011*, KU Leuven (Belgium), Co-organizer.

With lectures from P. W. Atkins (Oxford University, UK) and E. R. Scerri (UCLA, Los Angeles, USA)

Organisation of Summer Schools

- 2020 **Quantum: The Foundations and Philosophy of Quantum Mechanics**, 6–11 July, 2020, Kalamaki (Crete), Organizer.
- 2019 Aspects of Modern Physics: Philosophy of Special Relativity and Quantum Mechanics, *26 May–2 June, 2019*, Kalamaki (Crete), Co-organizer.
- 2018 Einstein's Block Universe: Time, Time Travel, Free Will and Nonlocality, 16–23 June, 2018, Kalamaki (Crete), Co-organizer.

Fellowships and Other Grants

- 2021–2024 **Postdoctoral Research Fellowship** from the (Fonds de la Recherche Scientifique, FNRS).
- 2016–2019 **FWO** Research Project from the *Research Foundation Flanders* (Fonds Wetenschappelijk Onderzoek, FWO), to perform research on Time, Causality, and Probability in Physics, €500.000.
- 2009–2013 **PhD Fellowship** from the *Research Foundation Flanders* (Fonds Wetenschappelijk Onderzoek, FWO).
 - 2008 **Travel Grant** from the *Royal Flemish Society of Chemistry* (Koninklijke Vlaamse Chemische Vereniging, KVCV) to attend the 12th ISPC Summer Symposium of the *International Society for the Philosophy of Chemistry* at Coburg, Germany, €500.
 - 2008 **Short Term Fellowship** from the *Chemical Heritage Foundation* (CHF) to use the Othmer Library, Philadelphia, Pennsylvania, for historical research on the position of the rare earth elements in the periodic table, \$2500.

Honours and Awards

- 2016 **First Jury Prize** at the YouReCa Science Slam, organized by the KU Leuven, for my pitch on time travel paradoxes.
- 2016 **Public Prize** at the YouReCa Science Slam, organized by the KU Leuven, for my pitch on time travel paradoxes.
- 2015 **Public Prize** at a Science Slam, organized by the KU Leuven and Radio 1, for my pitch on the grandfather paradox.
- 2014 Finalist of FameLab Benelux, arguably the world's leading science communication competition.
- 2012–2013 Certificate of Best Assistant at the KU Leuven, Department of Chemistry.
 - 2010 **Poster Prize** at the GOA midterm meeting on *Multicentre Quantum Chemistry*, La Foresta, Vaalbeek, Belgium.

Membership in Editorial Boards

- 2021–2023 Deputy Editor for Foundations of Chemistry, Springer Journal.
- 2008–2018 Deputy Editor for Foundations of Chemistry, Springer Journal.
- 2008–2018 Book Review Editor for Foundations of Chemistry, Springer Journal.
- 2007–2011 Member of the Editorial Staff of *Mens & Molecule* (MeMo), an independent scientific journal for chemists and biotechnologists in Flemish speaking Belgium.

Membership in Program Committees

- Jul 2015 Member of the Scientific Committee for the 19th ISPC Summer Symposium of the International Society for the Philosophy of Chemistry, Federal University of Rio de Janeiro (UFRJ), Brazil, 28–30 July 2015.
- Aug 2013 Member of the Scientific Committee for the 17th ISPC Summer Symposium of the International Society for the Philosophy of Chemistry, Universidad de la República, Montevideo, Uruguay, 31 July 3 August 2013.
- Aug 2012 Member of the Local Organizing Committee and the Scientific Committee for the *16th ISPC Summer Symposium of the International Society for the Philosophy of Chemistry*, KU Leuven, Belgium, 7–10 August 2012.
- Aug 2006 Member of the Local Committee for the 6th International Conference on the History of Chemistry, KU Leuven, Belgium, 28 August 1 September 2006.

Membership in Working Groups

- 2017–Present Member of the Academic Support Team of the *Institute for the Future*, a research incubator for transdisciplinary research at the KU Leuven, Belgium.
 - 2014–2018 Member of the Working Group for Public Relations and Communication of the Institute of Philosophy at the KU Leuven, Belgium.
 - 2014–2018 Member of the Working Group of *Pop-up Science*, an initiative of the Faculty of Sciences of the KU Leuven, Belgium.
 - 2007–2009 Member of the Sub-Commission for the Evaluation of Education of the Permanent Teaching Committee (POC Chemie) at the KU Leuven, Belgium.
 - 2007–2008 Treasurer and Secretary of the Historical Section of the Royal Flemish Society of Chemistry (Koninklijke Vlaamse Chemische Vereniging, Sectie Historiek, KVCV, Belgium.
 - 2006–2011 Member of the Working Group of the Science Café Leuven, an initiative of the Faculty of Sciences of the KU Leuven, Belgium.
 - 2006–2011 Member of the Working Group of the Youth Section of the Royal Flemish Society of Chemistry (Koninklijke Vlaamse Chemische Vereniging, Sectie Jong KVCV), Belgium.
 - 2006 Member of the Working Group of the project *Mendeleev Code*, organized by the Section Education & Schooling of the Royal Flemish Society of Chemistry (Koninklijke Vlaamse Chemische Vereniging, Sectie Onderwijs & Opleidingen, KVCV), Belgium.
 - 2005 Member of the Coordinating Advisory Council for Education (Overkoepelende OnderwijsRaad, OOR) of Sciences at the KU Leuven, Faculty of Sciences, Belgium.

Professional Service: Refereeing

Journals Synthese, Journal for General Philosophy of Science, Foundations of Chemistry, Foundations of Physics, Hyle, ChemTexts, Queios, Journal of Chemical Education, Sigma, Fontiers Chemistry, Algemeen Nederlands Tijdschrift voor Wijsbegeerte.

Teaching Experience

Transdisciplinary research

KU Leuven Coronavirus Pandemic Preparedness, Winter 2020, Spring 2021.

Philosophy

UCLouvain Philosophy of Science, Spring 2022.

KU Leuven **Epistemology**, Spring 2019.

Philosophy and the Contemporary World, Winter 2019.

Free Will (Workshop), Winter 2017, 2018.

Philosophy of Physics

KU Leuven Philosophy of Quantum Mechanics (Workshop), Spring 2018.

Philosophy of Statistical Mechanics (Workshop), Spring 2018.

Philosophy of Time Travel (Workshop), Winter 2017.

Philosophy of Special Relativity (Workshop), Autumn 2017.

Philosophy of Physics (Workshop), Spring 2017, 2018.

Philosophy of Time, Winter 2015.

Philosophy of Quantum Mechanics (Reading Group), Spring 2015.

Chemistry

KU Leuven History and Philosophy of the Periodic Table, Winter 2009, 2010, 2011, 2012.

General Chemistry (Exercises), Winter 2013.

Inorganic Chemistry (Exercises), Winter 2009, 2010, 2011, 2012.

Synthesis and Characterization of Chemical Compounds (Lab Exercises), Winter 2009, 2010, 2011, 2012.

Public Speaking

KU Leuven Presentation Skills (Workshop), Winter 2017, Spring 2018, 2019.

Supervision of Students

2018–2019 **Sara Blanco**, Free Will in the Block Universe: Determinateness versus Determinism, ReMa Thesis, Philosophy.

2017–2018 Sara Blanco, Locality in the Everettian Universe, Ma Thesis, Philosophy.

 $2016-2017 \quad \textbf{Mahua Agrawal}, \ \textit{Conceptualising Time Against the Backdrop of Quantum Mechanics}, \ \text{Ma Thesis}, \\$

Philosophy.

Computer Skills

Advanced LATEX, Keynote, Pages, Numbers, Endnote

Intermediate Microsoft Windows, Word, PowerPoint, Excel

Basic Origin, HTML, Tableau

Languages

Dutch Mothertongue

French Mothertongue

English Fluent Spoken and written

Other Interests

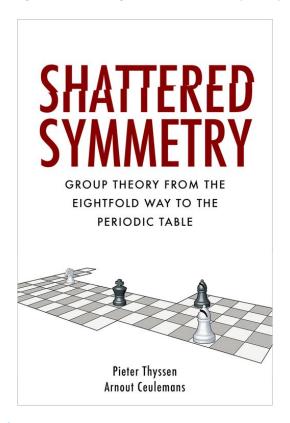
Aspiring time traveller, pianist, classical music lover, composer, amateur astronomer, hiker, (Arabica) coffee addict, cook, rare book collector, periodic table fan, blogger, science communicator, orchard restorator.

Publications

Books

(1) Shattered Symmetry: Group Theory from the Eightfold Way to the Periodic Table, Oxford University Press: New York, 2017 (with Arnout Ceulemans).

https://global.oup.com/academic/product/shattered-symmetry-9780190611392



Edited Books

(1) Wald, Positivism and Chemistry, Königshausen and Neumann: Würzburg, 2023 (with Klaus Ruthenberg), forthcoming.

Articles

- (7) Identical or Distinct? The Paneth–Fajans Debate on the Nature of Isotopes, Centaurus, to be submitted.
- (6) Four Degrees of Temporal Becoming, Erkenntnis, under review.
- (5) **Cross-Temporal Necessitation?**, Australasian Journal of Philosophy, under review.
- (4) Are Acids Natural Kinds?, Foundations of Chemistry, forthcoming.
- (3) **Degrees of Freedom** (with Sylvia Wenmackers), *Synthese*, 2021, 198 (11), 10207–10235, doi:10.1007/s11229-020-02714-z.
- (2) Particular Symmetries: Group Theory of the Periodic System (with Arnout Ceulemans), Substantia: An International Journal of the History of Chemistry, 2020, 4 (1), 7–22, doi:10.13128/Substantia-671.
- (1) **Conventionality and Reality**, *Foundations of Physics*, 2019, 49 (12), 1336–1354, doi:10.1007/s10701-019-00294-8.

Book Chapters

- (4) Mendeleev's Periodic Table and the 19th Century Debates on Atomism, In Wald, Positivism and Chemistry, Edited by Klaus Ruthenberg and Pieter Thyssen, Würzburg: Königshausen and Neumann, 2023 (forthcoming).
- (3) **The 'Chemical Mechanics' of the Periodic Table**, In *Mendeleev to Oganesson: A Multidisci- plinary Perspective on the Periodic Table*, Edited by Guillermo Restrepo and Eric Scerri, New York:
 Oxford University Press, 2018, 104–121 (with Arnout Ceulemans).
- (2) Mendeleev and the Rare-Earth Crisis, In *Philosophy of Chemistry: Synthesis of a New Discipline, Boston Studies in the Philosophy of Science*, Edited by Lee McIntyre and Eric Scerri, Boston Studies in the Philosophy of Science, Volume 2, Berlin: Springer-Verlag, 2014, 155–192 (with Koen Binnemans).
- (1) Accommodation of the Rare Earths in the Periodic Table: A Historical Analysis, In *Handbook on the Physics and Chemistry of Rare Earths*, Edited by K. A. Gschneidner Jr., J.-C. G. Bünzli and V. K. Pecharsky, Volume 41, Chapter 248, Elsevier BV. Academic Press, Burlington, 2011, 1–93 (with Koen Binnemans).

Book Reviews

- (5) Review of Giunta, C. J., Mainz, V. V. and Girolami; G. S., editors, "150 Years of the Periodic Table: A Commemorative Symposium." Springer, Cham, Switzerland (2021), In Foundations of Chemistry, forthcoming.
- (4) Review of Scerri, E. R. and Ghibaudi, E., editors, "What Is A Chemical Element? A Collection of Essays by Chemists, Philosophers, Historians, and Educators." Oxford University Press, New York (2020), In *International Studies in the Philosophy of Science*, forthcoming.
- (3) **Review of Van Lubeck, H. "Chemie in een Notendop."** Uitgeverij Bert Bakker, Amsterdam (2009), In *Studium: Tijdschrift voor Wetenschaps- en Universiteitsgeschiedenis*, 3 (2010): 111–112.
- (2) **Review of Fruton, Joseph S. "Fermentation: Vital or Chemical Process?"** History of Science and Medicine Library, volume 1, Brill, Leiden-Boston (2006), In *Ambix: Journal for the Society for the History of Alchemy and Chemistry*, 55, 3 (2008): 305–306.
- (1) Review of Jacobs, Davy, editor, "The Sage and the Fool, The Alchemist in Word and Image." Uitgeverij Van de Wiele, Brugge (2008), In *Mens & Molecule*, 4, 3 (2008): 23.

Popular Scientific Publications

- (29) The Fall of the Periodic Kingdom, Karakter, (2017).
- (28) **Setting Course to Atlantis** (On the Discovery of Elements 113, 115, 117 and 118), *Eos*, 33, 3 (2016): 28-33.
- (28) The Mysterious Element 61 (Elementorum Etymologia), Mens & Molecule, 5, 5 (2010): 32.
- (27) Sir William Ramsay's Noble Quest (Elementorum Etymologia), Mens & Molecule, 5, 4 (2010):
- (26) Elements named after Scientists (Elementorum Etymologia), Mens & Molecule, 5, 3 (2010): 34.
- (25) **Hooray, it is a Boy: Copernicium** (Elementorum Etymologia), *Mens & Molecule*, 5, 2 (2010):
- (24) The Satanic Elements (Elementorum Etymologia), Mens & Molecule, 6, 1 (2010): 32.
- (23) From Europium to Americium: A Journey through the Kingdom of the Elements (Elementorum Etymologia), Mens & Molecule, 5, 7 (2009): 29.
- (22) **Elements Named after their Chemical Properties** (Elementorum Etymologia), *Mens & Molecule*, 5, 6 (2009): 28.
- (21) **The Colourful Kingdom of the Elements** (Elementorum Etymologia), *Mens & Molecule*, 5, 5 (2009): 32.
- (20) **The Astronomical Element System** (Elementorum Etymologia), *Mens & Molecule*, 5, 4 (2009): 31.

- (19) **Hennig Brandt and the Bearer of Light** (Elementorum Etymologia), *Mens & Molecule*, 5, 3 (2009): 33.
- (18) **Basilius Valentinus and the Discovery of Antimony** (Elementorum Etymologia), *Mens & Molecule*, 5, 2 (2009): 27.
- (17) The Seven Metals of Antiquity (Elementorum Etymologia), Mens & Molecule, 5, 1 (2009): 32.
- (16) Jubileo Anno 2009 (Calendarium Historicum), Mens & Molecule, 4, 10 (2008): 32.
- (15) **Axel Fredrik Cronstedt and the Discovery of the Devil's Elements** (Calendarium Historicum), *Mens & Molecule*, 4, 9 (2008): 33.
- (14) **The Raman Effect: 80 Years Old but Still Very Revolutionary** (Calendarium Historicum), *Mens & Molecule*, 4, 8 (2008): 35.
- (13) From Chaos to Order: The Karlsruhe Conference (Calendarium Historicum), *Mens & Molecule*, 4, 7 (2008): 26.
- (12) The Marriage of Pierre and Marie Curie: Kindred Spirits in the Laboratory (Calendarium Historicum), *Mens & Molecule*, 4, 6 (2008): 24.
- (11) **The Isolation of the Alkaline Earth Metals: A Bicentenary** (Calendarium Historicum), *Mens & Molecule*, 4, 5 (2008): 24.
- (10) The Republic has no need of Scientists (Calendarium Historicum), Mens & Molecule, 4, 4 (2008): 33.
- (9) **Gallium: Mendeleev's Prophetic Prediction** (Calendarium Historicum), *Mens & Molecule*, 4, 3 (2008): 22.
- (8) The Sage and the Fool: The Alchemist in Word and Image (Calendarium Historicum), Mens & Molecule, 4, 3 (2008): 23.
- (7) The Wöhler Myth (Calendarium Historicum), Mens & Molecule, 4, 2 (2008): 47.
- (6) First Issue of a Series of Important Historical Events (Calendarium Historicum), Mens & Molecule, 4, 1 (2008): 23.
- (5) **Elements from Mendeleev's Life: A Biographical Sketch** (dedicated to the 100th anniversary of the death of Dmitrii Ivanovich Mendeleev), Published by KVCV (2007).
- (4) **The Mendeleev Code**, C_2W , 103, 17 (2007): 55–56.
- (3) The Mendeleev Code: Mendeleev Definitely Deciphers the Code, Hidden Behind the Elements, Mens & Molecule, 3, 4 (2007): 41.
- (2) The Mendeleev Code: How Mendeleev Laid the Foundations for the Periodic System on a Snowy Winter Day, Mens & Molecule, 3, 3 (2007): 25.
- (1) The Periodic System of the Elements: A Historical Review of the Events of February the 17th 1869, which led to the Discovery of the Periodic System, (2006).

Blog Posts

- (11) Who's in Charge?, The Life of Psi, (2015).
- (10) It's About Time! KU Leuven Introduces a Mind-Boggling Course on the Nature of Time, *The Life of Psi*, (2015).
- (9) A Time Travel Trilogy: The Jinni from Somewhere in Time, The Life of Psi, (2015).
- (8) Let it Snow!, The Life of Psi, (2015).
- (7) A Time Travel Trilogy: The Grandfather Paradox, The Life of Psi, (2014).
- (6) A Time Travel Trilogy: Einstein's Portal to the Future, The Life of Psi, (2014).
- (5) A Six-Pack of Tips and Tricks on Science Communication, The Life of Psi, (2014).
- (4) Beam me up, Scotty! How to Build a Quantum Teleportation Device, KU Leuven Blogt, (2014).
- (3) Beam me up, Scotty! How to Build a Quantum Teleportation Device, *The Life of Psi*, (2014).

- (2) Bertlmann's Socks and the Nature of Reality, The Life of Psi, (2014).
- (1) Schrödinger's Cat and the Measurement Problem, The Life of Psi, (2014).

Talks (110)

2023 (3)

- 24 Jul **Natural Kind Pluralism**, 17th CLMPST International Congress on Logic, Methodology and Philosophy of Science and Technology, Buenos Aires, Argentina, forthcoming.
- 18 Jul **Natural Kind Pluralism**, 27th ISPC Summer Symposium of the International Society for the Philosophy of Chemistry, Buenos Aires, Argentina, forthcoming.
- 7 Mar Invited Speaker: Are Acids Natural Kinds?, Centenary Workshop on the Bifurcation of Acidity: Protonism versus Electronism, Coburg University, Germany.

2022 (6)

- 2 Dec Cross-Temporal Necessitation? A Platonist Reply to Leininger, Work in Progress Seminar, UCLouvain, Belgium.
- 18 Nov **Keynote Talk: Einstein's Block Universe**, *IMEC PhD Day*, Leuven, Belgium.
 - 27 Oct **Invited Speaker: Time Travel in Einstein's Block Universe**, *Domein de Renesse*, Malle, Belgium.
 - 14 Sep Cross-Temporal Necessitation? A Platonist Reply to Leininger, *Talk for the Philosophy of the Sciences Group*, Buenos Aires, Argentina.
 - 6 Sep Cross-Temporal Necessitation? A Reply to Leininger, Society for the Metaphysics of Science, 7th Annual Conference, Bristol, UK.
 - 19 Aug Identical or Distinct? The Paneth-Fajans Debate on the Nature of Isotopes, 26th ISPC Summer Symposium of the International Society for the Philosophy of Chemistry, Lille, France.

2021 (8)

- 17 Dec **Conventionality and Reality in Special Relativity**, *Metaphysics of Science Seminar*, UCLouvain, Belgium.
- 14 Jul Particular Symmetries: The Group-Theoretical Nature of Chemical Elements, 24th ISPC Summer Symposium of the International Society for the Philosophy of Chemistry, Buenos Aires, Argentina.
 - 7 Jul **Group-Theoretical Analogy: From Elementary Particles to Chemical Elements**, *British Society for the Philosophy of Science Annual Conference*, University of Kent, UK.
 - 2 Jun How to Build a Time Machine? Survival Tips for Future Time Travellers, *Paridaens*, Leuven, Belgium.
- 19 Apr A Brief Introduction to Black Holes, House for Philosophy, Leuven, Belgium.
- 19 Apr The Birth and Death of Stars, House for Philosophy, Leuven, Belgium.
- 11 Apr A Brief Introduction to Black Holes, House for Philosophy, Leuven, Belgium.
- 11 Apr The Birth and Death of Stars, House for Philosophy, Leuven, Belgium.

2020 (8)

03 Dec Particular Symmetries: The Group-Theoretical Nature of Chemical Elements, 6th Panhellenic Conference in Philosophy of Science, Athens, Greece.

- 19 Nov **Stakeholder Involvement in Academic Research**, *Iedereen Betrokken*, Jonge Academie, online webinar
- 13 Oct Quantum Entanglement and Nonlocality, Urania Observatory, Hove, Belgium.
- 22 Jul Degrees of Freedom, Online Free Will Conference.
- 20 Feb Tips and Tricks for Killer Presentations, Institute for the Future, KU Leuven, Belgium.
- 12 Jan How to Build a Time Machine? Survival Tips for Future Time Travellers, *Urania Observatory*, Hove, Belgium.
- 10 Jan The Measurement Problem in Quantum Mechanics, Junior College, Ghent, Belgium.
- 7 Jan The Measurement Problem in Quantum Mechanics, Junior College, Kortrijk, Belgium.

2019 (9)

- 14 Dec **Keynote Talk: Mendeleev's Nightmare**, *Christmas Lecture*, KU Leuven, Belgium.
 - 5 Nov The Measurement Problem in Quantum Mechanics, Urania Observatory, Hove, Belgium.
 - 12 Okt How to Build a Time Machine? Survival Tips for Future Time Travellers, *Kinderuniversiteit*, KU Leuven, Belgium.
 - 25 Aug Invited Speaker: Accommodating the Rare Earths in the Periodic Table: A Puzzling History, TAN19, Special Symposium on the International Year of the Periodic Table, Wilhelmshaven, Germany.
 - 29 Jul **Degrees of Freedom**, *Identity Workshop*, Paris, France.
 - 6 May The Periodic Table and the Quest for the Philosopher's Stone of Quantum Alchemy, Jong KVCV, UGent, Belgium.
 - 3 Apr La Place des Terres Rares dans le Tableau Périodique, Mémosciences, UCLouvain, Belgium.
 - 22 Mar Tips and Tricks for Killer Presentations, Institute for the Future, KU Leuven, Belgium.
 - 20 Mar The Periodic Table and the Quest for the Philosopher's Stone of Quantum Alchemy, *Alkimia*, UCLL, Hasselt, Belgium.

2018 (15)

- 12 Dec The Periodic Table and the Quest for the Philosopher's Stone of Quantum Alchemy, *Jong KVCV*, KU Leuven, Belgium.
- 8 Dec The Freedom of Will: Illusion or Reality?, House for Philosophy, Leuven, Belgium.
- 1 Dec The Freedom of Will: Illusion or Reality?, House for Philosophy, Leuven, Belgium.
- 30 Sep **How to Build a Time Machine? Survival Tips for Future Time Travellers**, SuperNova, Antwerp, Belgium.
- 29 Sep How to Build a Time Machine? Survival Tips for Future Time Travellers, SuperNova, Antwerp, Belgium.
- 23 Jul **Relativistic Temporal Becoming**, 2nd Leuven-Buenos Aires Workshop on the Philosophy of Physics and Chemistry, KU Leuven, Belgium.
- 27 May How to Build a Time Machine? Survival Tips for Future Time Travellers, Sound of Science, Edegem, Belgium.
- 15 May **Conventionality and Reality**, Fifth International Conference on the Nature and Ontology of Spacetime, Albena, Bulgaria.
 - 4 May Conventionality and Reality, CLPS Meeting, KU Leuven, Belgium.
 - 5 May **Time Travel and Free Will in Einstein's Block Universe**, *The Theoretical Minimum*, Leuven, Belgium.

- 21 Apr **The Measurement Problem and Quantum Nonlocality**, *The Theoretical Minimum*, Leuven, Belgium.
- 24 Mar Statistical Mechanics and the Arrow of Time, The Theoretical Minimum, Leuven, Belgium.
- 22 Mar Tips and Tricks for Killer Presentations, Institute for the Future, KU Leuven, Belgium.
- 5 Mar Accommodating the Rare Earths in the Periodic Table, UCLL, Hasselt, Belgium.
- 24 Jan Why You Cannot Buy a Time Machine on Bol.com, Universiteit van Vlaanderen, Leuven, Belgium.

2017 (13)

- 9 Dec Time Travel, Paradoxes and the Freedom of Will, The Theoretical Minimum, Leuven, Belgium.
- 25 Nov **Time Travel and Free Will in Einstein's Block Universe**, *The Theoretical Minimum*, Leuven, Belgium.
- 18 Nov **Time Travel and Free Will in Einstein's Block Universe**, *The Theoretical Minimum*, Leuven, Belgium.
- 14 Nov Tips and Tricks for Killer Presentations, KU Leuven, Belgium.
- 9 Nov Time According to Einstein, Urania Observatory, Hove, Belgium.
- 21 Oct **The Rietdijk-Putnam Argument: Pros and Contras**, *The Theoretical Minimum*, Leuven, Belgium.
- 3 Jun How to Build a Time Machine? Survival Tips for Future Time Travellers, Vestrock University, Hulst, Netherlands.
- 6 May The Measurement Problem and Non-Locality in Einstein's Block Universe, The Theoretical Minimum, Leuven, Belgium.
- 6 May **Time Travel and Free Will in Einstein's Block Universe**, *The Theoretical Minimum*, Leuven, Belgium.
- 27 Mar Survival Tips for Future Time Travellers, Research Roulette, Docville, Leuven, Belgium.
- 9 Mar Accommodating the Rare Earths in the Periodic Table, UCLL, Hasselt, Belgium.
- 4 Mar The Measurement Problem and Non-Locality in Einstein's Block Universe, *The Theoretical Minimum*, Leuven, Belgium.
- 4 Mar **Time Travel and Free Will in Einstein's Block Universe**, *The Theoretical Minimum*, Leuven, Belgium.

2016 (7)

- 8 Dec Keynote Talk: The Periodic Table and the Quest for the Philosopher's Stone of Quantum Alchemy, 20th Sigma Aldrich Symposium, Blankenberge, Belgium.
- 20 Oct **Albert Einstein, My Favourite Philosopher**, *Speaker's Corner*, Institute of Philosophy, KU Leuven, Belgium.
- 18 Oct How to Avoid Nonlocality: Retrocausality and Many Worlds, *CLAW Meeting*, Institute of Philosophy, KU Leuven, Belgium.
- 27 Jul **Peaceful Coexistence**, Leuven-Buenos Aires Workshop on the Philosophy of Physics and Chemistry, KU Leuven, Belgium.
- 4 May Survival Tips for Future Time Travellers, Dag voor de Leuvense Leerkrachten, Leuven, Belgium.
- 14 Apr Survival Tips for Future Time Travellers, Institute of Philosophy, KU Leuven, Belgium.
- 17 Feb **Survival Tips for Future Time Travellers**, *The YouReCa Challenge, a science slam organized by the KU Leuven*, Leuven, Belgium.

2015 (7)

- 3 Dec Reaching into the Past: Or How to Slay Wheeler's Smoky Dragon in Delayed-Choice Experiments, Fifth Meeting on the Foundations of Quantum Physics (Skype conference), Buenos Aires, Argentina.
- 11 Oct **The Grandfather Paradox**, *Science Slam*, KU Leuven, Leuven, Belgium.
- 21 Jul Reaching into the Past: Or How to Slay Wheeler's Smoky Dragon in Delayed-Choice Experiments, 3rd International Summer School in Philosophy of Physics, Saig (Black Forest), Germany.
- 18 Jun Reaching into the Past: Towards a Retrocausal Formulation of Quantum Mechanics, Philosophy of Physics Group, University of Oxford, United Kingdom.
- 20 May Reaching into the Past: Or How to Slay Wheeler's Smoky Dragon in Delayed-Choice Experiments, Leuven-Bristol Workshop, Institute of Philosophy, KU Leuven, Belgium.
- 7 May **On How to Become your own Mother and other Time Travel Paradoxes**, Institute of Philosophy, KU Leuven, Belgium.
- 27 Mar On How to Become your own Mother and other Time Travel Paradoxes, 5th HIW Graduate Student Conference, Institute of Philosophy, KU Leuven, Belgium.

2014 (6)

- 7–9 Jul **The Position of Chemistry within Heisenberg's Concept of Closed Theories**, 18th ISPC Summer Symposium of the International Society for the Philosophy of Chemistry, London School of Economic (LSE), London, United Kingdom.
 - 2 Jul **A Six-Pack of Tips and Tricks on Science Communication** (Pecha Kucha), *Let's Talk Science: Science Communication Summer School*, University of Brussels, Belgium.
- 22 May **Beam me up, Scotty! How to Build a Quantum Teleportation Device** (3-minute pitch), FameLab Benelux Final, Science Center NEMO, Amsterdam, The Netherlands.
- 10–13 Apr **Of Plato and Heisenberg and How to Represent the World in Terms of Broken Symmetries**, *CRF International Conference, Understanding Matter: Philosophical Perspectives*, Orto Botanico di Palermo, Palermo, Sicily.
 - 27 Mar **Quantum Immortality** (3-minute pitch), *FameLab Benelux Heat*, Wageningen University, The Netherlands.
 - 20 Mar The Problematic Accommodation of the Rare-Earth Elements in the Periodic Table from 1869 to 1913, Mini Symposium on Controversial Elements: The Rare Earths and Uranium in the 19th and 20th Century, organized by the Dutch Royal Society of Chemistry (KNCV), Museum Boerhaave, Leiden, The Netherlands.

2013 (5)

- 31 Jul **Group Structural Realism: An Attempt to Represent the World in Terms of Broken Symme**-3 Aug **tries**, 17th ISPC Summer Symposium of the International Society for the Philosophy of Chemistry, Universidad de la República, Montevideo, Uruguay.
 - 29 Jul **Group Theory and the Periodic System: The Quest for the Chiral Bishop**, Universidad de Buenos Aires, Argentina.
- 17 Apr Buridan's Donkey and Everett's Many-Worlds Interpretation: The Importance of Symmetry-Breaking in Science, KU Leuven, Belgium.
- 15 Apr Symmetry and Symmetry Breaking in the Periodic Table: The Quest for the Chiral Bishop and the Rules of Atomic Chess, Ghent University, Belgium.
- 26 Mar Hidden Symmetries in the Periodic Table: The Quest for the Chiral Bishop, KU Leuven, Belgium.

2012 (2)

- 14–16 Aug Group Theory and the Periodic System: Symmetry-Induced Classifications in Quantum Mechanics, 3rd International Conference on the Periodic Table, Center of Conventions of the Provincial Municipality of Cusco, Peru.
- 7–10 Aug Symmetry Breaking and Everett's Many-World Hypothesis, 16th ISPC Summer Symposium of the International Society for the Philosophy of Chemistry, KU Leuven, Belgium.

2011 (3)

- 16 Nov Mendeleev's Periodic Table and the 19th Century Debates on Atomism, 4th Journée Franco-Belge d'Histoire de la Chimie, devoted to the bicentenary of Avogadro's hypothesis, Palais des Académies, Brussels, Belgium.
- 9–11 Aug A Group Theoretical Analysis of the Periodic System of Elements, 15th ISPC Summer Symposium of the International Society for the Philosophy of Chemistry, Universidad de los Andes, Bogota, Colombia.
 - 11 Jan The Periodic System of Elements: A Quest for its Hidden Symmetry, KU Leuven, Belgium.

2010 (2)

- 6 Oct The Periodic System of Elements: A Historical Overview and Contemporary Problems, Centrum Nascholing Onderwijs (CNO), University of Antwerp, Belgium.
- 8 Jan **The Replication Method: Resolving a Nineteenth Century Priority Dispute**, *Postgraduate Workshop in the History of Alchemy and Chemistry*, organized by the Society for the History of Alchemy and Chemistry (SHAC), Department of History and Philosophy of Science, University of Cambridge, United Kingdom.

2009 (5)

- 16–17 Oct Mendeleev's Periodic Table and the 19th Century Debates on Atomism, Workshop on Wald, Positivism, and Chemistry, hosted by the Wald-Foundation, in association with the International Society for the Philosophy of Chemistry (ISPC), Prague-Pruhonice, Czech Republic.
 - 7 Oct The Problematic Accommodation of the Rare-Earth Elements in the Periodic Table: A Historical Analysis from 1869 till now, National Committee for Logic, History, and Philosophy of Sciences, Brussels, Belgium.
 - 20 Aug Mendeleev's Philosophical Concept of Chemical Elements in 1869: The Rare Earth Influence, 13th ISPC Summer Symposium of the International Society for the Philosophy of Chemistry, Philadelphia, Chemical Heritage Foundation (CHF), Pennsylvania.
 - 2–5 Aug

 Chemical Order in Transit: Comparative Studies of the Response to the Periodic Law in Various Countries from the Late 1870 to the Early 20th Century: The Reception of Mendeleev's System in Belgium, 7th International Conference on the History of Chemistry, Consumers and Experts: The Uses of Chemistry (and Alchemy), organized by the Working Party (WP) on the History of Chemistry of the European Association for Chemical and Molecular Sciences (EuCheMS), Sopron, Hungary.
- 26–31 Jul The Problematic Accommodation of the Rare Earth Elements in the Periodic Table from 1869 to 1913, XXIII International Congress of History of Science and Technology (ICHST): Ideas and Instruments in Social Context, organized by the Council of the International Union for the History and Philosophy of Science (IUHPS), Budapest, Hungary.

2008 (4)

11 Oct Lavoisier's Experimentum Crucis: Antoine Laurent Lavoisier and the Chemical Revolution, Dag van het Chemieonderwijs, Technopolis, Mechelen, Belgium.

- 3–6 Aug Accommodating the Transition Elements in the Periodic Table: Troubles with Triads, 12th ISPC Summer Symposium of the International Society for the Philosophy of Chemistry, presented with Brigitte Van Tiggelen, Coburg, Germany.
 - 26 Feb Hidden Periodicity: The History of the Development of the Periodic System of the Elements, Catholic Academy of Kempen, Department Public Health Service and Chemistry, Belgium.
 - 26 Feb **Elements from Mendeleev's Life: An (Auto)biographical Sketch**, Catholic Academy of Kempen, Department Public Health Service and Chemistry, Belgium.

2007 (6)

- 4 Dec Elements from Mendeleev's Life: An (Auto)biographical Sketch, Ghent University, Belgium.
- 22 Nov Hidden Periodicity: The History of the Development of the Periodic System of the Elements, University of Antwerp, Belgium.
- 19 Nov Elements from Mendeleev's Life: An (Auto)biographical Sketch, KU Leuven, Belgium.
- 13 Oct The Mendeleev Code: Hidden Periodicity: The History of the Development of the Periodic System of the Elements, *Dag van het Chemieonderwijs*, Technopolis, Mechelen, Belgium.
- 13 Oct The Mendeleev Code: Elements from Mendeleev's Life: An (Auto)biographical Sketch, Dag van het Chemieonderwijs, Technopolis, Mechelen, Belgium.
- 30 Mar Elements from Mendeleev's Life: A biographical Sketch, *Incentive Awards 2006*, Royal Flemish Academy of Belgium for Science and Arts, Brussels, Belgium.

2006 (1)

29 Aug **The Periodic System of the Elements**, Bouwstenen voor het Actueel Chemieonderwijs, KU Leuven, Belgium.

Conferences, Summer Schools & Competitions

Attended Conferences

2017

- 13–15 Mar The Foundation of Reality: Fundamentality, Space and Time, Corpus Christi College, Oxford, UK. 2015
- 30–31 Jan *Quantum Computation, Quantum Information and the Exact Sciences*, Munich Center for Mathematical Philosophy (MCMP), Ludwig Maximilians Universität, Munich, Germany.

2014

- 10–11 Jul Annual Conference of the British Society for the Philosophy of Science (BSPS), Fitzwilliam College, University of Cambridge, UK.
- 19–22 Jun *Quantum [Un]Speakables II, 50 Years of Bell's Theorem*, a celebration of John Bell, his theorem, and its consequences, Faculty of Physics, University of Vienna, Austria.

2013

- 30 Nov *Irreversibility in Axiomatic Thermodynamics*, Cambridge-London-Oxford Conference on the Philosophy of Physics, Trinity College, University of Cambridge, UK.
- 28–29 Nov Relativity meets Quantum Theory, Cambridge-London-Oxford Conference on the Philosophy of Physics, Center for Philosophy of Natural and Social Sciences, London School of Economics (LSE), UK.

2010

9–11 Aug 14th ISPC Summer Symposium of the International Society for the Philosophy of Chemistry, University College, Oxford University, UK.

Summer Schools

2017

17-22 Jul Space, Time, and Matter: New Directions in the Philosophy of Physics: 5th International Summer School in Philosophy of Physics, Saig (Black Forest), Germany.

2016

- 18–25 Sep *The Timaeus of Plato*: Summer school by Gerard Bodifée with the aim of reading and discussing Plato's Timaeus, Apollonas, Naxos, Greece.
 - 5–8 Sep *Many-Worlds Interpretations, Quantum Mechanics, Metaphysics and Cosmology*: XIX International Summer School in Philosophy of Physics, Urbino, Italy.
- 16–23 Jul *The Meaning of the Wavefunction*: 4th International Summer School in Philosophy of Physics, Saig (Black Forest), Germany.

2015

- 20–25 Jul *The Ontology of Physics*: 3rd International Summer School in Philosophy of Physics, Saig (Black Forest), Germany.
- 9–11 Apr Philosophy of Physics: 1st Munich Graduate Workshop in Mathematical Philosophy, Munich Center for Mathematical Philosophy (MCMP), Ludwig Maximilians Universität, Munich, Germany.

2014

2–4 Jul *Let's Talk Science*: Summer School for Science Communication and Communicative Competences, Vrije Universiteit Brussel (VUB), Brussels, Belgium.

Workshops

2017

- 18 Mar *Plato's Timaeus*: Workshop by Gerard Bodifée on the Sources of Cosmology, KU Leuven, Leuven, Belgium.
- 18 Feb Black is the Night: Workshop by Gerard Bodifée on Olbers' Paradox and Modern Cosmology, KU Leuven, Leuven, Belgium.
- Jan & Feb The Arrow of Time and the Dynamics of an Evolving Universe: Workshop by Gerard Bodifée, organized by Studium Generale (5 evenings), Maastricht, The Netherlands.

2016

- 28 Jan, 11 Feb Master Class in Science Communication, with lead trainer Bas Birker, KU Leuven, Leuven, Belgium.
 - Jan & Feb 100 Years of Relativity: Workshop by Gerard Bodifée on General Relativity, organized by Studium Generale (5 evenings), Maastricht, The Netherlands.

2015

- 21 Nov *Science as an Aesthetic Experience*: Workshop by Gerard Bodifée on the abstract beauty of physical theories, KU Leuven, Leuven, Belgium.
- 24 Oct *Einstein, Parmenides and the Illusion of Time*: Workshop by Gerard Bodifée, KU Leuven, Leuven, Belgium.
- 2, 9 Oct *Master Class in Science Communication*, with lead trainer Bas Birker, KU Leuven, Leuven, Belgium. 2014
- 24–25 Apr *Master Class in Science Communication*, with lead trainer Malcolm Love, KNAW, Amsterdam, The Netherlands.

Competitions

2016

17 Feb Contestant in the *YouReCa Challenge*, a science slam organized by the KU Leuven, KU Leuven, Leuven, Belgium.

2015

11 Oct Contestant in the *Science Slam* of *Het Land van de Nieuwsgierigheid*, organized by the KU Leuven and Radio 1, KU Leuven, Leuven, Belgium.

2014

- 22 May Contestant in the Benelux finals of *FameLab Benelux*, arguably the world's leading science communication competition, Science Center NEMO, Amsterdam, The Netherlands.
- 27 Mar Contestant in the regional heats of *FameLab Benelux*, arguably the world's leading science communication competition, Wageningen Campus, The Netherlands.

Science Communication

Media Appearances

Television

- Jan 2016 Pitch on the grandfather paradox in Iedereen Beroemd (Everyone Famous), Eén.
- Dec 2015 Documentary on quantum teleportation in *Wetenschap Redt de Wereld* (Science Saves the World), Canvas.

Radio

- Feb 2023 Interview with Dennis Janssen and Lennart Creël in *The Morning Drive*, Business AM Radio. Topic: Time Travel, Time Travel Paradoxes
- Sep 2020 Interview with Ruth Roets in De Wereld Vandaag, Radio1.

Topic: The Arrow of Time, Entropy, Time Travel

Feb 2018 Interview with Anja Daems, Britt Van Marsenille and Cathérine Vandoorne in *De Madammen*, Radio2.

Topic: Time Travel, Time Travel Paradoxes

Apr 2017 Interview with Greet Van Thienen in Kant, en Klaar!, Klara.

Topic: Kant, Poetic Naturalism, Time Travel

- Oct 2016 Interview with Koen Fillet and Sven Speybrouck in *Interne Keuken*, Radio1. Topic: Time Travel and Time Travel Paradoxes
- Aug 2016 Interview with Annemie Peeters and Peter Van de Veire in *De Bende van Annemie*, Radio1. Topic: Quantum Teleportation
- Jan 2016 Interview with Friedl' Lesage in *Touché*, Radio1.
 Topics: Philosophy of Physics, Mendeleev's Periodic Table, Beethoven, Jurassic Park
- Aug 2015 Interview with Sandra Hojniak, Jelena Lucin and Emilija Jovanoska in the *Xposure Show*, RadioX. Topics: Time Travel, Teleportation

Magazines

- Apr 2018 Will We Ever Teleport Ourselves from A to B?, in *DS Standaard*, 18 April 2018. https://www.nieuwsblad.be/cnt/dmf20180416_03465612
- Feb 2018 Time Travel in Einstein's Block Universe, in *Knack*, 20 February 2018.

article-opinion-967427.html

Apr 2016 A Teleportation Device? Only a matter of Time?, in *DS Standaard*, 23 April 2016, 27.

https://www.knack.be/nieuws/wetenschap/kunnen-we-volgens-de-wetten-van-de-fysica-een-tijdreismachi

http://www.standaard.be/cnt/dmf20160421_02251074

Nov 2015 Flashing yourself to Peking is not for tomorrow, in *Campuskrant*, 18 November 2015, 6.

Popular Scientific Publications

I have written a total of 29 popular scientific publications and 11 blog posts. See Popular Scientific Publications and Blog Posts.

Talks and Competitions

I have given numerous science talks for a general audience, and have participated in a number of science slams and other science communication competitions. See Talks and Competitions.