

Curriculum Vitae
Prof. Silvia De Bianchi
Silvia.DeBianchi@unimi.it

1 July 2024

A.O.S.: Kant, Weyl, Philosophy of Physics, Foundations of Physics.

A.O.C.: Philosophy of Science, Early Modern Philosophy, History and Philosophy of Physics

Current Position:

Associate Professor, Dipartimento di Filosofia “Piero Martinetti”, Università degli Studi di Milano

PI ERC StG2017 Project (Grant n. 758145) PROTEUS (2018-2024)

“Paradoxes and Metaphors of Time in Early Universe(s)”

<http://www.proteus-pmte.eu/>

PI COSMOS project (2021 – 2026)

Fondazione Cariplo

<https://cosmosproject.unimi.it/en/>

ORCID 0000-0002-3296-6462

Research ID N-9544-2016

Previous positions:

(2021-2022) Research Fellow, Dipartimento di Filosofia “Piero Martinetti”, Università degli Studi di Milano

(2017-2021) *Ramón y Cajal Fellow*, Universitat Autònoma de Barcelona, Department of Philosophy

(2014-2016) *Marie Curie Fellow* (EC-FP7 PEOPLE-COFUND - Beatriu de Pinós programme 2013BP-B 00101) Universitat Autònoma de Barcelona, Centre for the History of Science - CEHIC

(2014) *Post-doc* – École Normale Supérieure (CNRS – UMR 8547) Paris, France

(2013) *Fritz Thyssen Research Fellow*, Institute for Philosophy and Political Science, TU Dortmund, Germany

(2012) *Research Fellow*, University of Ferrara, Italy

(2011) *DAAD Research Fellow*, Zentrum für Kommentarisches Interpretationen zu Kant (ZetKIK), University of Siegen, Germany

(2010- 2011) *Affiliate Academic*, Department of Science and Technology Studies, University College London, UK

Other affiliations:

-IVU, Department of Philosophy, UAB Spain

-Honorary Research Associate, Department of Science and Technology Studies, University College London, UK

Education:

- Ph.D in Philosophy, University of Rome "La Sapienza" (30/06/2010)
- *Laurea Specialistica* in Philosophy, University of Rome "La Sapienza" (06/07/2006) 110/110 cum laude
- *Laurea* in Philosophy, University of Rome "La Sapienza" (12/07/2004) 110/110 cum laude
- Diploma Liceo Classico “Orazio” Rome (July 2001) 100/100

Publications

Books:

- *Breaking Rules: Hermann Weyl in Princeton (1928-1955)*, Springer (under contract)

Edited Books:

- *Time and timelessness in fundamental physics and cosmology*, with M. Forgiione and L. Marongiu, Springer (in press)

- *Plato on Time and the World*. With V. Ilievski and D. Vázquez, Palgrave Macmillan (2023).

- *One Hundred Years of Gauge Theory. Past, Present and Future Perspectives*, with C. Kiefer, Springer (2020)

- *La fenice della natura. Scritti di astronomia e geofisica*, Mimesis Edizioni, Milano (2016)

- *The Harmony of the Sphere: Kant and Herschel on the Universe and the Astronomical Phenomena*, Cambridge Scholars Publishing, Newcastle upon Tyne (2013).

Special Issues:

- *The Real and the Known*, with L. Giovannetti, THAUMAZEIN. - ISSN 2284-2918. - 11:1(2023)

- *Building Universe(s). The Philosophical and Mathematical Underpinnings of Cosmology (18-20th century)* With F. Viglione, HOPOS - The Journal of the International Society for the History of Philosophy of Science (2022)

- *Hermann Weyl and the Philosophy of the 'new' physics*, with G. Catren, *Studies in History and Philosophy of Modern Physics* (2018)

- *Kant's Philosophy of Science: Bridging the Gap between the Natural and the Human Sciences*, with K. Kraus, *Studies in History and Philosophy of Science Part A* (2018)

Articles:

“Avoiding singularities in Lorentzian-Euclidean black holes: the role of atemporality” (with. S. Capozziello and E. Battista), *Physical Review D*

“Introduction : Exploring the dynamics between ontology and epistemology” (with L. Giovannetti). - In: THAUMAZEIN. - ISSN 2284-2918. - 11:1(2023 Jun 08), pp. 1-27. [10.13136/thau.v11i1.253]

Re-thinking geometrogenesis: Instantaneity in quantum gravity scenarios (with L. Gabbanelli). - In: JOURNAL OF PHYSICS. CONFERENCE SERIES. - ISSN 1742-6588. - 2533:1(2023), pp. 012001.1-012001.14. [10.1088/1742-6596/2533/1/012001]

“An Epistemic Analysis of Time Phenomenon” (with F. H. Farshi). *Foundations of Physics* **52**, 63 (2022). <https://doi.org/10.1007/s10701-022-00583-9>

“Kant's functional cosmology. Teleology, measurement, and symbolic representation in the Critique of Judgment”, HOPOS – *The Journal of the International Society for the History of Philosophy of Science* 1, 12 2 (2022)

“Cosmological implications of the hydrodynamical phase of group field theory” (with Luciano Gabbanelli), *General Relativity and Gravitation*, **53**, 66 (2021). <https://doi.org/10.1007/s10714-021-02833-z>

“Making science through ‘mental inspection’: On William Herschel's manuscript ‘Kant (notes on philosophy)’”, *Studi Kantiani* XXXI, 2019, pp. 135-149

“Combining finite and infinite elements: Why do we use infinite idealizations in engineering?” *Synthese*, (2019) 196: 1733.

“Introduction to Kant’s Philosophy of Science: Bridging the Gap between the Natural and the Human Sciences”, with K. Kraus, *Studies in History and Philosophy of Science Part A*. Volume 71, 2018, pp. 1-5.

“The stage on which our ingenious play is performed: Kant's epistemology of *Weltkenntnis*, *Studies in History and Philosophy of Science Part A*, Volume 71, 2018, pp. 58-66.

"Introduction to the special issue Hermann Weyl and the philosophy of the ‘New Physics’" with G. Catren, *Studies in History and Philosophy of Modern Physics*, Volume 61, 2018, pp. 1-5.

“Rethinking antiparticles. Hermann Weyl's contribution to neutrino physics” in *Studies in History and Philosophy of Modern Physics*, Volume 61, 2018, pp. 68-79.

“Why is the World four-dimensional? Hermann Weyl's 1955 argument and the topology of causation” 8th International Workshop DICE2016: Spacetime - Matter - Quantum Mechanics, IOP Conf. Series: Journal of Physics: Conf. Series 880 (2017) 012011 doi:10.1088/1742-6596/880/1/012011

“Hermann Weyl e i dibattiti sulla teoria di campo unificato”, *Giornale di Astronomia*, 42, 4 (2016), pp. 18- 23.

“Which Explanatory Role for Mathematics in Scientific Models? Reply to ‘The Explanatory Dispensability of Idealizations’”, in *Synthese*, 193, 2 (2016), pp. 387-401.

“When series go *in indefinitum*, *ad infinitum* and *in infinitum*. Concepts of infinity in Kant’s Antinomy of pure Reason”, in *Synthese*, 192, 8 (2015), pp. 2395-2412.

“Explanation and the dimensionality of space. Kant’s argument revisited” with J. Wells, in *Synthese*, 192, 1 (2015), pp. 287-303.

“How far can we go with fuzzy logic? Perspectives on model-based reasoning and stochastic resonance in scientific models”, with Silvia Gaudenzi, in *Logic Journal of the IGPL*, 21, 6 (2013), pp. 1044-1056.

“Cartesian echoes in Kant’s philosophy of nature” with M. Massimi, *Studies in History and Philosophy of Science*, 44, 3 (2013), pp. 481-492.

“The worldwide NORM production and a fully automated gamma-ray spectrometer for their characterization,” with G. Xhixha et al., *Journal of Radioanalytical and Nuclear Chemistry*, 295(1), (2013), pp. 445-457.

“Kant’s Concept of the Technique of Nature in the Critique of the Power of Judgment,” in *Kant E-prints – International Journal*, 6 (1), (2011), pp. 12-28.

“Osservazioni sulle fonti esplicite di Copernico, Galilei e Newton nella *Kritik der reinen Vernunft*”, *Philosophical Readings*, 2 (1), (2010), pp. 157-177.

Book chapters:

“Not Even Ideal. Kant on Absolute Time and Gödel’s Rotating Universes”, in S. De Bianchi, M. Forgione and L. Marongiu (eds.), "Time and Timelessness in Fundamental Physics and Cosmology", Springer 2024.

“Kant’s *Transition* Project and its debt to Émilie Du Châtelet”, in R. E. Hagengruber and A. Wells (eds.), “Du Châtelet and Kant. The Copernican Turns”, Springer, Cham (forthcoming).

“Time and Cosmology”, in Routledge Companion to the Philosophy of Time, Nina Emery (ed.), Routledge (forthcoming).

“Philosophy of Cosmology”, in Routledge Handbook for the History of Philosophy of Science, Flavia Padovani and Adam Tamas Tuboly (eds.), Routledge (forthcoming)

“How do we Transform Appearance into Experience? Kant’s Metaphysical Foundations of *Phenomenology*” in *Kant’s Metaphysical Foundations of Natural Science: A Critical Guide*, B. McNulty (ed.), Cambridge University Press (2022)

“Eternity, Instantaneity, and Temporality. Tackling the Problem of Time in Plato’s Cosmology” in D. Vazquez and A. Ross (eds.), *Time and Cosmology in Plato and the Platonic Tradition*, Brill (2022).

“The Image of the Universe and Its Purpose: Kant on Hypotyposis and Functional Cosmology” in *Bilddenken und Morphologie*, L. Follesa and F. Vercellone (eds.), pp. 23-36, Berlin, De Gruyter, 2021 10.1515/9783110674194-003

“Weyl’s *Raum-Zeit-Materie* and the Philosophy of Science”. In *One Hundred Years of Gauge Theory. Past, Present and Future Perspectives*, De Bianchi S. and Kiefer C. (Eds.) Springer (2020)

Introduction to the volume *One Hundred Years of Gauge Theory. Past, Present and Future Perspectives*. with C. Kiefer. In *One Hundred Years of Gauge Theory. Past, Present and Future Perspectives*, De Bianchi S. and Kiefer C. (Eds.), Springer (2020).

From the Problem of Space to the Epistemology of Science: Hermann Weyl’s Reflection on the Dimensionality of the World. In *Weyl and the Problem of Space: From Science to Philosophy*, Julien Bernard and Carlos Lobo (Eds.), Springer 2019.

"Space science and technological progress: testing theories of relativistic gravity and cosmology during the Cold War" in *Oxford Handbook of the History of Modern Cosmology*, H. Kragh & M. Longair Eds. Oxford University Press (2019), DOI: 10.1093/oxfordhb/9780198817666.013.9

“The Evolution of the Sphere. Kant’s Theory of Matter and the Expanding Universe”, in De Bianchi, S. (ed.), *The Harmony of the Sphere: Kant and Herschel on the Universe and the Astronomical Phenomena*. Cambridge Scholars Publishing, Newcastle upon Tyne (2013), pp. 17-45.

“Discussion of Jody Azzouni’s ‘Nominalistic Content’” in Cellucci, C. - Grosholz, E. - Ippoliti, E. (Eds). *Logic and Knowledge*, Cambridge Scholars Publishing, Newcastle upon Tyne (2011), pp. 52-56.

Entries for the Kant-Lexikon, 3 vols. Ed. by G. Mohr, J. Stolzenberg, M. Willaschek, S. Bacin, De Gruyter, Berlin (2015):

“Kosmologie”

“Kosmologie, rationale (cosmologia rationalis)” “Erde”

“Mond”

“Planeten”

“Planetenbewohner”

“Milchstraße”

“Meteor”

“Astronomie”

“Sonnensystem”

“Kugelgestalt der Erde”

"Naturwissenschaft" with T. Sturm "Teilbarkeit/Unteilbarkeit" with F . Wunderlich

"Dichte/Dichtigkeit" with F . Wunderlich "Undurchdringlichkeit" with F . Wunderlich "Stoff vgl.

Materie" with F . Wunderlich "Materie (physikalisch)" with F . Wunderlich

Conference proceedings:

“Kant’s Transcendental Philosophy and Scientific Observation”. In Violetta L. Waibel, Margit Ruffing, David Wagner (Eds.), *Natur und Freiheit: Akten des XII. Internationalen Kant-Kongresses* (pp. 1469–1476). Berlin, Boston: De Gruyter (2018). <https://doi.org/10.1515/9783110467888-127>

“The role of magnetic field for quiescence quiescence-outburst models in CVs” with S. Gaudenzi & V. Braga, *Acta Polytechnica CTU Proceedings*, Vol. 2, No. 1 (2015), pp. 192-196.

“Multi-periodicities and magnetic field behaviour in cataclysmic variables. How can we enrich the scenario of theoretical models?” with Gaudenzi S., Braga V. F., in *The Golden Age of Cataclysmic Variables and Related Objects*, F. Giovannelli & L. Sabau-Graziati (eds.), *Mem. SAIt. Vol. 83* (2012), pp. 734-741.

“Mathematica: New Frontiers in the Philosophy of Science,” in *Mathematica Italia User Group Meeting* (UGM) 2010, ISBN 9788896810002. (2010)

“When Philosophy and Engineering meet,” in Bontempi, F. (Ed.), *Proceedings of Handling Exceptions in Structural Engineering: Structural Systems, Accidental Scenarios, Design Complexity*, (2010) DOI: 10.3267/HE2010.

Reviews:

Boyd, N. et al., *Philosophy of Astrophysics: Stars, Simulations, and the Struggle to Determine What is Out There*, Cham, Springer 2023. In: *Philosophy of Science* (July 2024)

Cafagna, E., *Kant e la metafisica della forza. Un’interpretazione dei primi scritti*, Roma, Edizioni di Storia e Letteratura 2020. In: *Studi Kantiani XXXVI* (2023), pp. 153-156.

Howard, S., *Kant’s Late Philosophy of Nature: The Opus postumum*, Cambridge, Cambridge University Press 2023. In: *Studi Kantiani XXXVI* (2023), pp. 169-172.

Watkins, E., *Kant on Laws*, Cambridge, Cambridge University Press 2019. In: *Studi Kantiani XXXIII* (2020), pp. 197-200.

Grillenzoni, P., *Kant e la scienza 1755-1760. Parte I*, Roma, Aracne, 2016, 575 pp. Studi Kantiani XXXI (2018), pp. 191-195.

Kant, I., *Natural Science*, Watkins E. (Ed.), Cambridge: Cambridge University Press (2012), in *The Journal for the History of Astronomy* 44(4) (2013), pp. 487-488.

Sgarbi, M., *La logica dell'irrazionale. Studio sul significato e sui problemi della Kritik der Urteilskraft*, Milano: Mimesis (2010), in *Giornale Critico della Filosofia Italiana*, 2 (2013), p. 462.

Sgarbi, M., *La Kritik der reinen Vernunft nel contesto della tradizione aristotelica*, Hildesheim: Olms, Band 80 (2010), in *Rivista di Storia della Filosofia* 4 (2012), p. 865.

Pringe, H., *Critique of the Quantum Power of Judgment. A Transcendental Foundation of Quantum Objectivity*, Kantstudien Ergänzungshefte 154, Berlin - New York, in *Giornale di Filosofia on line* (2008).

Professional Evaluation Programs:

- **Accreditació de Recerca AQU (Associate Professor), 2019**
- **Abilitazione Scientifica Nazionale (Professore II fascia) SETTORE CONCURSALE 11/C2 LOGICA, STORIA E FILOSOFIA DELLA SCIENZA, 2020**
- **I3 Certificate (I3/2020/574) for outstanding research career (2022)**

Fellowships, Grants and Awards:

Award of SEED4INNOVATION 2023 with the project **DICOuni (Digital Collection Unifier – The ethical making of digital innovation)**

Seal of Excellence (ERC PoC 2023) for the project **INTER-SEEDS**

Grant PSR Linea 4, University of Milan (49.000 Euro)

Grant “Attrattività ERC” - Fondazione Cariplo, COSMOS project (2021-2026)

Erc StG 2017 PROTEUS Grant n. 758145 “Paradoxes and Metaphors of Time in Early Universe(s)” (09/2018-08/2023)

Grant offered by the **WE-Heraeus-Stiftung** to organize the conference 100 years of gauge theory (Bad Honnef 30/07/2018-03/08/2018) (May 2017).

Ramón y Cajal Fellowship RYC-2015-17289. Ministerio de Economía y Competitividad (MINECO) (June 2016)

Grant offered by the **SCHST** (Societat Catalana de Història de la Ciència i de la Tècnica) to organize the conference Rethinking 20th-century cosmology (Barcelona, 12-13 May 2016).

Grant « young researchers » offered by **Comité National Français d'Histoire et de Philosophie des Sciences** to take part in the SPS Conference in Lille (25-27 June 2014).

Grant offered by the **Evert Willem Beth Foundation** to organize the conference “Hermann Weyl and the Philosophy of the new Physics” (August 2014).

EC-FP7 PEOPLE COFUND – Marie Curie Fellowship/Beatriu de Pinós programme (October 2014- September 2016) Host: Autonomous University of Barcelona.

Travel Grant offered by **The Chemical Heritage Foundation**, Philadelphia PA (April 2014).

“Research in Paris 2013” one-year Post-doctoral Fellowship – **École Normale Supérieure** (CNRS – UMR 8547), Paris (2014).

Fritz Thyssen Foundation fellowship for the project “Kant's transcendental philosophy in light of astronomical riddles and paradoxes: a reassessment” (2013).

Grant as a visitor at **CERN- TH Division** (19-25 March 2012; 24-27 April 2013).

DAAD Research Fellowship – ZetKIK at the University of Siegen, (July 2011-October 2011).

Post-doc research fellowship at University College London, sponsored by the **University of Rome “La Sapienza”** (2010 - 2011).

Doctoral fellowship **University of Rome “La Sapienza”** (2006-2009).

Grant offered by UCL Public Engagement Unit under the Beacons for Public Engagement programme - funded by the **UK funding councils, Research Councils UK and the Wellcome Trust** for the organized event “The Harmony of the Sphere” (20 May 2011).

National Prize Award ANPRI (Associazione Nazionale Professionale per la Ricerca – National Professional Association for Research) “Vincenza Celluprica” 2008 for the best thesis in Philosophy.

Teaching

Department of Philosophy, University of Milan:

Introduction to Scientific Reasoning (2023/2024)

Philosophy of Physics (2022/2023-2023/2024)

Philosophy of Science (2021/2022)

Department of Philosophy, UAB (Spain)

Early Modern Philosophy Seminar (2500246) - 2017-2021

Faculty of Sciences - UAB

Master in History of Science: Science, History, Society (UAB-UB) (2015-2021)

M8 42286 (De Frankenstein a Einstein: ciència i societat contemporànies)

Workshop and Conference organization

- 11-12/11/2024. CHRONOS Final Workshop, Campus UAB, Barcelona, Spain.
- 10-13/09/2024. 2nd History and Philosophy of Cosmology Conference, University of Milan, Italy.
- 13-15/11/2023 Analogia e scienza nella Critica del Giudizio di Kant, Villa Vigoni, Italy
- 17-19/07/2023 ERC Proteus Final Conference “Perspectives on Time and Atemporality in Cosmology and Natural Sciences”, University of Milan, Italy
- 12-17/09/2022 *1st Conference in History and Philosophy of Cosmology*, University of Milan, Italy
- IAPT7 Campus Sant Pau, UAB Barcelona, Spain, 5-7 July 2022
- *Online Symposium “Plato on Time, Eternity and the World”* (with D. Vazquez and V. Ilievski), 11-13 May 2021
- *Time and Cosmogony in Plato and the Platonic Tradition* (with Daniel Vázquez) 22-23 October 2019, Campus UAB Barcelona
- *Kant on the Foundations of Mathematics and Cosmology. What Legacy for German Idealism and Beyond?* (with Federico Viglione), 17-18 September 2019, Campus UAB Barcelona
- *678th Wilhelm and Else Heraeus Seminar Hundred Years of Gauge Theory* (with Claus Kiefer), Physikzentrum, Bad Honnef, Germany, 30 July – 3 August 2018.
- *Rethinking 20th-century cosmology*, Institut d’Estudis Catalans and Universitat Autònoma de Barcelona, Barcelona, 12-13 May 2016
- *A dialogue between Kant and the sciences. Exploring new perspectives in history and philosophy of science*, TU Dortmund, Germany 9-11 July 2015
- *Hermann Weyl and the Philosophy of the ‘new Physics’*, University Paris 7-Diderot, Paris 10-11 December 2014
- *The Harmony of the Sphere. Kant and Herschel on the Universe and the Astronomical Phenomena*, University College London, UK, 20 May 2011

Other Research Projects (member)

CHRONOS

PI: Giuliano Torrenco

Ministerio de Economía y Competitividad (MINECO) Start date: 01/09/2020-present

Total amount: 20.000 Eur

Modern languages: **Italian** (native speaker), **English** (fluent in written and spoken), **German** (fluent in written and spoken), **French** (fluent in written and spoken), **Spanish** (fluent in written and spoken), **Catalan** (fluent in written and spoken), **Japanese** (very good in written and spoken), **Portuguese** (fluent in reading), **Arabic** (basic in reading, writing and speaking).

Ancient languages: **Classic Greek** and **Latin**.

Editorial Boards and continuous reviewing activities:

- **Associate Editor - Zeitschrift für Naturforschung A** (A Journal of Physical Sciences).
- Reviewer of Zentralblatt MATH (zbMATH) – European Mathematical Society
- Mathematical Reviews (American Mathematical Society)

COMMITTEES

2022 Scientific Programme Committee Society for the Metaphysics of Science (SMS) Conference, 7 – 9 September 2022, Bristol UK

2020 Organizing and Scientific Committee of the IAPT7 Conference, Barcelona (postponed to 2022)

2017 Scientific Programme Committee European Philosophy of Science Association Conference, 6-7 September 2017, Exeter UK

Professional Affiliations:

Young Academy of Europe

Philosophy of Physics Society

SIGRAV - Società Italiana di Relatività Generale e Fisica della Gravitazione

Società Italiana di Studi Kantiani (SISK)

ERCinItaly

Selected list of presentations:

(invited) Keynote lecture, PHYSICS AND REALITY: INTERNATIONAL CONFERENCE ON PHILOSOPHY OF PHYSICS, University of Helsinki, Finland 04-06/06/2024.

(invited) “What is emergent spacetime?”, Scientific Colloquia, Scuola Superiore Meridionale, Napoli 01/02/2024

(invited) “Paradoxes and metaphors of time in between physics and philosophy”, Workshop The nature of time, CREF, Roma 12/12/2023

“Kants Begriff des Übergangs: die Kritik der Urtheilskraft als neuer Schlüssel zur Architektonik”, Analogia e scienza nella Critica del Giudizio di Kant, Villa Vigoni 13-15/11/2023

(invited) “Symbolic construction and the irreducible uniqueness of humankind” XV International Ontology Congress, San Sebastián, Spain, 3-8 October 2023

“Lessons from gravitational physics and beyond: how can we rethink space, time and causal order?” XXV SIGRAV Conference, SISSA, Trieste, Italy 4-8 September 2023

(invited) “Is Atemporality Without Structure?” IAPT2023 Sydney, Australia, 27-30 July 2023

(invited) "Instantaneity, Quantum Gravity and The Meaning of a Timeless Universe "10th Int. Conf. DICE 2020: Spacetime – Matter – Quantum Mechanics, Castiglioncello, Italy (19-23 September 2022)

(invited) “Understanding the World through the ‘Übergang’: Kant on the Foundations of the Sciences”. Kant and the sciences - 20th Kant Colloquium, State University of Campinas - Unicamp (Campinas, Brazil) 14-16 September 2022

(invited) "Ipotiposi e cosmologia nella Critica del Giudizio: sui molti modi di pensare l'universo". Storia della cosmologia. Visioni dell'universo da Galileo ai giorni nostri. Università degli Studi di Urbino Carlo Bo, Urbino, 27-28 May 2022

(invited) XIV INTERNATIONAL ONTOLOGY CONGRESS: NATURAL DETERMINISM AND FREE WILL San Sebastián, Spain, UPV/EHU Facultad de Educación, Filosofía y Antropología. 29 September 2021

"Kant's Pre-Critical Cosmology and its Debt to the Ancient World", SCIENTIAE Early Modern Knowledge, 1400-1800, University of Amsterdam, virtual conference, 11 June 2021

"Acting at the Boundary: Timeless Agency and Cosmology in the *Timaeus*" IPS at American Philosophical Association Pacific Division (online event, in-presence conference cancelled due to Covid19), 24 June 2020

(invited) "Istantaneità, temporalità ed eternità nel Timeo di Platone", University of Turin, 17 December 2019

Key-note DISPUTATIO OF BARCELONA 2019 "A new Humanism for the 21st century? Specialisation vs. generalisation" 13 November 2019

(invited) Plato on Time and Instant: What Can Philosophy of Time Do for Physics? International conference Colloquium for Philosophy of Time, Osaka City University, Japan 2-3 November 2019

"Kant and Schelling on cosmology: a different take on Plato's *Timaeus*?" Kant on the Foundations of Mathematics and Cosmology. What Legacy for German Idealism and Beyond?, Autonomous University of Barcelona, 17-18 September 2019

(invited) "Kant on Time-Continuum", International Workshop Time Continuum, Imperia, Italy, 5 - 6 September 2019

(invited) "Space, Time and World. Kant's Philosophy of Cosmology", SCIENCE AND ITS LIMITS: CONTEMPORARY AND KANTIAN PERSPECTIVES - IN HONOR OF BRIGITTE FALKENBURG, TU Dortmund, 11-12 April 2019

(invited) "The many roads to analogical reasoning" Analogical Reasoning in Science and Mathematics, LMU, Munich, 26-28 October 2018.

"In search of unifying patterns: meteorology, technology and power (1750-1795)" European Society for the History of Science Conference, London, UK 14-17 September 2018.

(invited) "Weyl's Raum-Zeit-Materie and the philosophy of science" 678th Wilhelm and Else Heraeus Seminar Hundred Years of Gauge Theory, Physikzentrum Bad Honnef, Germany 30 July - 3 August 2018.

"A moving image of eternity? Time and philosophy of cosmology" IAPT 2018, Seoul, South Korea, 18-20 June 2018.

(invited) "Symmetry: What can Philosophy learn from Physics?" University of Ferrara, Italy 15 February 2018.

(invited) "Symmetry: from Physics to Philosophy", Symmetries in Science, Gasthof Hotel Lamm, Bregenz, Austria, July 30-August 4, 2017.

(invited) "Understanding and Controlling Climate: The development of climatology and its importance for philosophy in the 18th century", Stevin Centre for History of Science and Humanities, Amsterdam, 21 April 2017.

"Understanding and Controlling Climate at the End of the 18th Century. Kant's Reflections on Physical Geography and Geopolitics", European Society for the History of Science (ESHS), Prague, 22-24 September 2016.

(invited) "Why is the world 4-dimensional? H. Weyl's 1955 argument and the topology of causation", DICE 2016 Spacetime - Matter - Quantum Mechanics, Castiglioncello (Pisa), Italy 11-16 September 2016.

(invited) "Progress and Law: From Kant's Theory of the Earth to Ethics", Dept. of Logic, History and Philosophy of Science, (UNED) Madrid, 8 March 2016.

"Kant's transcendental philosophy and scientific observation", 12th International Kant Congress "Nature and Freedom", University of Vienna, 21-25 September 2015.

“From the History of Earth to Ethics: a Kantian Perspective”, *A dialogue between Kant and the sciences. Exploring new perspectives in history and philosophy of science*, TU Dortmund, Germany 9-11 July 2015.

(invited) “From the problem of space to the epistemology of science”, Weyl and the Problem of Space, Konstanz, Germany 27-29 May 2015

“Weyl’s ‘Levels of Infinity’ (1930)”, Hermann Weyl and the Philosophy of the ‘new Physics’, University Paris 7 Diderot, 10-11 December 2014

(invited) “Hermann Weyl’s notion of symbolic construction in natural science”, 25th *Novembertagung* on the History of Mathematics, MSH Lorraine Nancy, France, 19-21 November 2014

(invited) “Kant’s cosmology and theory of matter”, Instituto Caro y Cuervo, Bogotá 27 August 2014

(invited) “The marriage of theory and astronomical observations in Kant’s scientific writings” Institut de mathématiques de Jussieu, Paris 12 March 2014.

“Hermann Weyl on the constructive character of natural science”, SPS Congress, Lille 25-27 June 2014.

“Following Euler’s Footprints. Kant’s Transcendental Philosophy and Scientific Methodology”, Leuven Kant Conference, KU Leuven, 29-30 May 2014

(invited) “Causality and Explanation in the Sciences. A Lesson from Engineering”, Wissenschaftsphilosophisches Kolloquium, Universität Bern, 8 November 2013

“When series go in infinitum, in indefinitum, ad infinitum”, Foundations of the Formal Sciences VIII: History & Philosophy of Infinity, Cambridge 20-23 September 2013

“The role of magnetic field for quiescence-outburst models in CVs”, The Golden Age of Cataclysmic Variables and Related Objects II, Palermo 9-14 September 2013

(invited) “Explanation in resonant models. Limits and perspectives of applied mathematics”, *Mathematising Science: Limits and Perspectives*, University of East Anglia, Norwich 16-17 May 2013

(invited) “A symmetric theory of electrons and positrons” and its legacy for the history and philosophy of physics, Sigma Club, London School of Economics, London 4 March 2013

(invited) “Kant’s cosmology and theory of matter: an answer to the 18th century astronomical riddles?”, Institute of Theoretical Physics, University of Cologne, Cologne 27 November 2012

(invited) “Kant’s cosmology and theory of matter in light of astronomical riddles and paradoxes”, Guest Colloquium, Utrecht University, Utrecht 11 October 2012

“What can we learn from riddles and paradoxes? An integrated HPS approach to Kant’s cosmology”, XXXII International Congress of The Italian Society of the Historians of Physics and Astronomy, Rome 27-29 September 2012

“The Starry Sky above Me”: The Role of Paradoxes in Kant’s Cosmology and Theoretical Philosophy,” 3- Society Meeting, Philadelphia PA 11-14 July 2012

“How far can we go with fuzzy logic? Perspectives on model-based reasoning and stochastic resonance in scientific models”, *Model-Based Reasoning in Science and Technology Theoretical and Cognitive Issues*, Sestri Levante, Italy, 21-23 June 2012

(invited) “Majorana’s oscillator and the philosophy of neutrino physics”, 76. Jahrestagung der DPG und DPG-Frühjahrstagung, Technische Universität Berlin, 25-30 March 2012

“Intervention and theories of causal explanation: what can we learn from engineering?” *CaEitS2011: Causality and Explanation in the Sciences*, Centre for Logic and Philosophy of Science, Ghent 19-21 September 2011

“Kant’s Epistemology and his Conception of Objectivity in Natural Science,” *Herbstworkshop 2011-AG Phil*, Technische Universität, München 10-11 September 2011

“Symmetry and the enigma of space and time. Reflections on the origin of gauge theory” 4th Congress of Logic, Methodology and Philosophy of Science, Nancy 19-26 July 2011

“The Aims of Representative Practices: Symmetry as a Case-Study,” Third Biennial Conference of the Society for the Philosophy of Science in Practice, Exeter 22-24 June 2011

“The Authority of Science and H. Weyl’s Epistemology: a Kantian Legacy?,” 4th Sydney-Tilburg Conference on the philosophy of science, The Authority of Science, University of Sydney, Sydney 08-10 April 2011

“Is a transcendental approach to objectivity still alive? Reflections on the origin of gauge theory,” 6th Joint Annual Conference of the Society for European Philosophy and Forum for European Philosophy, Loyola University of Chicago – John Felice Center, Rome 06-10 July 2010.

“Kant’s Transcendental Idealism: Dynamics of Synthesis,” British Society for the History of Philosophy Annual Conference Transcendental Idealism: Its History and Nature, MMU, Manchester 14-17 April 2009.