

CURRICULUM VITAE

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**Department of Philosophy and History of Science
University of Athens**

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CURRICULUM VITAE

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Academic Appointments:

- 2010 — Associate Professor in Philosophy of Physics, Department of
Philosophy and History of Science, University of Athens
- 2006—2010 Tenured Assistant Professor in Philosophy of Physics, Department of
Philosophy and History of Science, University of Athens
- 2002—2006 Assistant Professor in Philosophy of Physics, Department of
Philosophy and History of Science, University of Athens
- 1998—2002 Lecturer in Philosophy of Physics, Department of Philosophy
and History of Science
- 1995—1997 Post-Doctoral Research Fellow in Philosophy of Physics,
University of Cambridge, England

Academic Education:

- 1983—1987 Degree in Physics, Department of Physics,
University of Crete, Greece
- 1988—1989 M.Sc. in Medical Physics, Department of Physics,
University of Surrey, England
M.Sc. Dissertation: "The Physiological Basis of Human Memory"
- 1989—1990 M.Sc. in Philosophy of Science, Department of Philosophy, Logic and
Scientific Method, University of London (LSE), England
*M.Sc. Dissertation: "Schrödinger's Original Interpretation of Wave
Mechanics"*
- 1990—1995 Ph.D. in Philosophy of Physics, Department of History and Philosophy
of Science, University of Cambridge, England
*Ph.D. Thesis: "Quantum Theory of Measurement and Related
Philosophical Problems"*
Supervisor: Prof. M.L.G. Redhead

SCHOLARSHIPS – HONOURS – AWARDS

- “Alexander Onassis” Foundation, Greece, Scholarship for Postgraduate Research in Philosophy of Physics, 1990-1991.
- “British Academy”, U.K., Major Scholarship for Doctoral Research in Philosophy of Physics, 1991-1993.
- “Arnold Gerstenberg” Foundation, U.K., Scholarship of the University of Cambridge for Doctoral Research, 1992-1994.
- Elected as Post-Doctoral Research Fellow in Philosophy of Physics, University of Cambridge, 1995-1997.
- Elected as Member of the Governing Body of Hughes College, University of Cambridge, 1995-1997.
- Member of Teaching Staff of the Philosophy Faculty, University of Cambridge, 1995-1997.

PUBLICATIONS

A. Books

1. Karakostas, V. & Dieks, D. (eds.) (2013), *EPSA11 Perspectives and Foundational Problems in Philosophy of Science*, Dordrecht: Springer, 510 pp.
2. Anapolitanos D., Arabatzis Th., Karakostas V., Kindi V. (2003), *Philosophy of Science*, Hellenic Open University. Author of Chapters “*Philosophy of Space and Time*” (Chapter 6) and “*Philosophy of Quantum Mechanics*” (Chapter 7)”, pp. 201-332 (in Greek).

B. Refereed Papers in International Journals and Book-Chapters

1. Karakostas, V. (1994), “Limitations on Stochastic Localization Models of State Vector Reduction”, *International Journal of Theoretical Physics*, 33, 1645-1659.
2. Karakostas, V. & Dickson, M. (1995), “Decoherence in Unorthodox Formulations of Quantum Mechanics”, *Synthése*, 102, 61-97.
3. Karakostas, V. (1996), “On the Brussels School’s Arrow of Time in Quantum Theory”, *Philosophy of Science*, 63, 374-400.
4. Karakostas, V. (1997), “The Conventionality of Simultaneity in the Light of the Spinor Representation of the Lorentz Group”, *Studies in History and Philosophy of Modern Physics*, 28, 249-276.
5. Hadzidaki, P. & Karakostas, V. (2001), “Exploring Analogical Reasoning in the Framework of an Instructional Qualitative Approach to Quantum Mechanics”, *Proceedings of 3rd International Conference of E.S.E.R.A. (European Science Education Research Association)*, pp. 426-429.

6. Karakostas, V. (2004), "Forms of Quantum Nonseparability and Related Philosophical Consequences", *Journal for General Philosophy of Science*, 35, 283-312.
7. Karakostas, V. & Hadzidaki, P. (2005a), "Realism vs. Constructivism in Contemporary Physics: The Impact of the Debate on the Understanding of Quantum Theory and its Instructional Process", *Science & Education*, 14, 607-629.
8. Karakostas, V. (2005b), "Quantum Mechanics and Reality" in K. Boudouris et al. (eds.), *Proceedings of the First World Olympic Congress of Philosophy*, Athens: Ionia Publications, pp. 158-176.
9. Karakostas, V. (2006a), "The Role of Human Mind in Nature", *Encyclopedia of Anthropology*, Editor Prof. James Birx, State University of New York, New York: Sage Publications, pp. 1702-1710.
10. Karakostas, V. (2007a), "Nonseparability, Potentiality and the Context-Dependence of Quantum Objects", *Journal for General Philosophy of Science*, 38, 279-297.
11. Karakostas, V. (2008a), "Atomism versus Holism in Science and Philosophy" in M. Thomase (ed.), *Science Education in Focus*, New York: Nova Science, pp. 253-275.
12. Karakostas, V. (2009a), "Humean Supervenience in the Light of Contemporary Science", *Metaphysica*, 10, 1-26.
13. Karakostas, V. (2009b), "From Atomism to Holism: The Primacy of Non-Supervenient Relations", *NeuroQuantology*, 7, 635-656 (invited paper).
14. Karakostas, V. (2011a), "Quantum Mechanics and Realism" in J. Groffe (ed.), *Quantum Mechanics*, Series: Physics Research and Technology, New York: Nova Science, pp. 173-194 (invited paper).
15. Karakostas, V. (2012), "Realism and Objectivism in Quantum Mechanics", *Journal for General Philosophy of Science*, 43, 45-65.
16. Zafiris, E. & Karakostas, V. (2013), "A Categorical Semantic Representation of Quantum Event Structures", *Foundations of Physics*, 43, 1090-1123.
17. Karakostas, V. (2014a), "Correspondence Truth and Quantum Mechanics", *Axiomathes*, 24, 343-358.
18. Karakostas, V. (2014b), "Truth as Contextual Correspondence in Quantum Mechanics", forthcoming in *Proceedings of Logic, Methodology and Philosophy of Science* (14th CLMPS), edited by Pierre Edouard Bour, Gerhard Heinzmann, Wilfrid Hodges and Peter Schroeder-Heister (14 pp.).
19. Karakostas, V. & Zafiris, E. (2014c), "On the Notion of Truth in Quantum Mechanics: A Category-Theoretic Standpoint", under review, (33 pp.).
20. Karakostas, V. & Zafiris, E. (2015a), "Truth Value Assignment in Quantum Mechanics in Light of Category Theory", forthcoming in D. Aerts, H. Freytes and R. Giuntini (eds.), *Probing the Meaning and Structure of Quantum Mechanics: Semantics, Dynamics and Identity*, Singapore: World Scientific (17 pp.).

C. *Refereed Papers in Hellenic Journals and Book-Chapters*

21. Karakostas, V. (2000), “On the Problem of Measurement in Quantum Mechanics: Reality, Objectivity and Indeterminacy in Contemporary Physics” («Επί του Προβλήματος της Κβαντικής Μέτρησης: Πραγματικότητα, Αντικειμενικότητα και Πιθανοκρατία στη Σύγχρονη Φυσική»), *Neusis*, 9, 95-115.
22. Hadzidaki, P. & Karakostas, V. (2002), “Perception, Language and Qualitative Approach to Quantum Mechanics Instruction” («Αντίληψη, Γλώσσα και Ποιοτική Διδακτική Προσέγγιση της Κβαντικής Φυσικής»), *Proceedings of Third Hellenic Conference in Didactics of Physical Sciences*, Athens: Ion Publications, pp. 59-65.
23. Hadzidaki, P. & Karakostas, V. (2003b), “Realism and Constructivism in Quantum Theory” («Ρεαλισμός και Κατασκευασιοκρατία στην Κβαντική Θεωρία»), *Proceedings of Second Hellenic Conference in History, Philosophy and Science Education*, Athens: University of Athens Publications, pp. 200-206.
24. Karakostas, V. (2005c), “On the Nature and Interpretation of Quantum Reality: The Prototype of Active Scientific Realism” («Περί της Φύσεως και Ερμηνείας της Κβαντικής Πραγματικότητας: Το Πρότυπο του Ενεργού Επιστημονικού Ρεαλισμού»), *Neusis*, 14, 48-77.
25. Karakostas, V. (2006b), “From Space and Time to Space-Time: Philosophical Implications of Relativity Theory” («Από τον Χώρο και Χρόνο στον Χωρόχρονο: Φιλοσοφικές Συνέπειες της Θεωρίας της Σχετικότητας»), *Outopia*, 70, 159-171.
26. Karakostas, V. (2007b), “The Decline of Humean Supervenience” («Η Πτώση της Χιουμιανής Επιγένεσης»), *Neusis*, 16, 88-107.
27. Karakostas, V. (2008b), “Epistemological Relativism and Theory of Relativity” («Γνωσιολογικός Σχετικισμός και Θεωρία Σχετικότητας») in D. Sfondoni (ed.), *Philosophy of Sciences*, Thessaloniki: University of Thessaloniki Publications, pp. 83-99.
28. Karakostas, V. (2009c), “Objectivity in Quantum Physics” («Αντικειμενικότητα στην Κβαντική Φυσική») in D. Portides et al. (eds.), *The Fundamental Scientific Theories in the Didactics of Natural Sciences*, Proceedings of Fifth Hellenic Conference in History, Philosophy and Science Education, Nicosia: University of Cyprus Publications, pp. 38-45.
29. Karakostas, V. & Sakellariou, V. (2010), “On the Interrelationship of Being and Becoming in Classical and Quantum Physics” («Η Διαλεκτική του «Είναι» και του «Γίνεσθαι» στην Κλασική και Κβαντική Φυσική»), *Neusis*, 19, 101-139.
30. Karakostas, V. (2011b), “Objectivity and Modern Physics: From the Metaphysics of Substance to Metaphysics of Relations” («Αντικειμενικότητα και Σύγχρονη Φυσική: Από τη Μεταφυσική της Υπόστασης στη Μεταφυσική των Σχέσεων») in K. Theologou et al. (eds.), *The Humanities and Social Sciences in the National Technical University: Fertile Projections*, Athens: NTUA Press, pp. 81-94.

31. Karakostas, V. & Papadopoulos, K. (2015b), “Quantum Theory of Measurement in the Light of Process Philosophy” («Κβαντική Θεωρία Μέτρησης Υπό το Πρίσμα της Φιλοσοφίας της Διαδικασίας»), forthcoming, *Neusis*, (28 pp.).

CONFERENCES – WORKSHOPS – LECTURES

A. *Presentations in International Conferences, Scientific Workshops and Lectures*

1. Karakostas, V. (1990), “Bohr’s Epistemological Interpretation of Quantum Mechanics” (University of Cambridge, December 1990).
2. Karakostas, V. (1991), “The Problem of Measurement in Quantum Mechanics as a Problem of Statistical Mechanics: The Quantum Ergodic Theory of Measurement of DLP” (University of Cambridge, May 1991).
3. Karakostas, V. (1992), “Temporal Asymmetry, Measurement and Quantum Reality” (University of Cambridge, March 1992).
4. Karakostas, V. (1993), “Theoretical Limitations on Stochastic Localization Models of State Vector Reduction” (University of Cambridge, March 1993).
5. Karakostas, V. (1994), “Observation and Self-reference in Microphysics” (University of Cambridge, February 1994).
6. Karakostas, V. (1996), “The Demise of the Conventionality of Simultaneity in Relativity Theory” (University of Cambridge, November 1996).
7. Hadzidaki, P. & Karakostas, V. (2001), “Exploring Analogical Reasoning in the Framework of an Instructional Qualitative Approach to Quantum Mechanics”, *Third European Science Education Research Association Conference (E.S.E.R.A.)* (21-25 August 2001, Aristotle University of Thessaloniki) — peer reviewed.
8. Karakostas, V. (2002), “Philosophical Implications of Quantum Nonseparability”, *Fourth European Congress of Analytic Philosophy (ECAP)* (14-18 Ιουνίου 2002, Lund, Sweden) — peer reviewed.
9. Karakostas, V. (2003a), “The Question of Realism in Quantum Mechanics”, *Third Joint Symposium of the Department of Philosophy of Bogaziçi University and the Department of Philosophy and History of Science of the University of Athens* (11-12 April 2003, Athens) — invited speaker.
10. Karakostas, V. (2003b), “The Nature of Physical Reality in the Light of Quantum Nonseparability”, *Twelfth Congress of Logic, Methodology and Philosophy of Science (LMPS)* (7-13 August 2003, Oviedo, Spain) — peer reviewed.
11. Hadzidaki, P. & Karakostas, V. (2003c), “The Doctrine of Classical Language and Perception as ‘Epistemological Obstacle’ Towards an Instructional Approach to

- Quantum Mechanics”, *Fourth European Science Education Research Association Conference (E.S.E.R.A.)* (19-23 August 2003, Utrecht, Ολλανδία) — peer reviewed.
12. Karakostas, V. (2004), “Scientific Realism and Quantum Mechanics”, First World Olympic Congress of Philosophy, organized by the International Association for Greek Philosophy (27 June – 4 July 2004, Athens) — peer reviewed.
 13. Karakostas, V. (2005a), “Contextual Objectivity in Microphysics”, *Fifth Athens – Pittsburgh Symposium in the History and Philosophy of Science (“Historical and Philosophical Perspectives on Physical Science”)* (7-10 July 2005, Avdera (birth place of Democritus)) — invited speaker.
 14. Karakostas, V. (2005b), “Whither Humean Supervenience?”, *Fifth European Congress of Analytic Philosophy (ECAP)* (27-31 August 2005, Lisbon, Portugal) — peer reviewed.
 15. Karakostas, V. (2007), “The Rise and Fall of Humean Supervenience”, *Thirteenth Congress of Logic, Methodology and Philosophy of Science (LMPS)* (9-15 August 2007, Beijing, China) — peer reviewed.
 16. Karakostas, V. (2008a), “Is Humean Supervenience Compatible with Quantum Physics?”, *Sixth European Congress of Analytic Philosophy (ECAP)* (21-26 August 2008, Krakow, Poland) — peer reviewed
 17. Hadzidaki, P. & Karakostas, V. (2009a), “The Atomic Model in Early Quantum Theory: Epistemological Analysis and Implications for Quantum Mechanics Instruction”, *Seventh European Science Education Research Association Conference (E.S.E.R.A.)* (31 August – 4 September 2009, Constantinople) — peer reviewed.
 18. Karakostas, V. (2009b), “Kant’s Transcendental Epistemology and Modern Physics”, Symposium on the occasion of Michael Friedman’s Award of Honorary Doctorate of the University of Athens (University of Athens, 15 December 2009) — invited speaker.
 19. Karakostas, V. (2010a), “Realism and Objectivism in Quantum Mechanics”, Symposium in Honor of Richard Boyd’s Work in Philosophy of Science (University of Athens, 8 December 2010) — invited speaker.
 20. Karakostas, V. (2011a), “Correspondence Truth and Quantum Mechanics”, *Fourteenth Congress of Logic, Methodology and Philosophy of Science (LMPS)* (19-26 July 2011, Nancy, France) — peer reviewed.
 21. Karakostas, V. (2011b), “Truth as Contextual Correspondence in Quantum Mechanics”, *Seventh European Congress of Analytic Philosophy (ECAP)* (1-6 September 2011, Milan, Italy) — peer reviewed.
 22. Karakostas, V. (2013a), “Why the Traditional Conception of Correspondence Truth Should be Modified Within Contemporary Physics”, *Workshop on Metaphysics of Scientific Realism, Research Programme “Thalis”* (1-2 March 2013, Athens).

23. Karakostas, V. & Zafiris, E. (2013b), “On the Notion of Truth in Quantum Mechanics: A Categorical Standpoint”, *Twenty-third World Congress of Philosophy* (4-10 August 2013, Athens) — peer reviewed.
24. Karakostas, V. & Zafiris, E. (2013c), “A Category-Theoretic Perspective on Truth Valuation in Quantum Mechanics”, *Fourth European Philosophy of Science Association Conference (EPSA)* (28-31 August 2013, Helsinki, Finland) — peer reviewed.
25. Karakostas, V. (2014a), “On the Problem of Truth Valuation in Quantum Mechanics in Light of Category Theory”, *Workshop on Quantum Mechanics and Quantum Information: Physical, Philosophical and Logical Approaches*, University of Cagliari, (23-25 July 2014, Cagliari, Italy) — invited speaker.
26. Karakostas, V. (2015), “From a Categorical Point of View: Contextual Semantics in Quantum Mechanics”, *Fifteenth Congress of Logic, Methodology and Philosophy of Science (LMPS)* (3-8 August 2015, Helsinki, Finland) (to be confirmed).

B. Presentations in Hellenic Conferences, Scientific Workshops and Lectures

27. Karakostas, V. (1998), “On the Problem of Quantum Measurement: Methodological Presuppositions – Philosophical Consequences” («Το Πρόβλημα της Κβαντικής Μέτρησης: Μεθοδολογικές Προϋποθέσεις – Φιλοσοφικές Συνέπειες»), Scientific workshop on “*100 Years of Physics of the Microworld*” organized by the University of Athens, the National Technical University of Athens, and the National Center of Scientific Research ‘Demokritos’ (December 1998, University of Athens) — invited speaker.
28. Hadzidaki, P. & Karakostas, V. (2002), “Perception, Language and Qualitative Approach to Quantum Physics Instruction” («Αντίληψη, Γλώσσα και Ποιοτική Διδακτική Προσέγγιση της Κβαντικής Φυσικής»), *Third Hellenic Conference in Didactics of Physical Sciences* (9-11 May 2002, University of Crete) — peer reviewed.
29. Hadzidaki, P. & Karakostas, V. (2003d), “Realism and Constructivism in Quantum Theory” («Ρεαλισμός και Κατασκευασιοκρατία στην Κβαντική Θεωρία»), *Second Hellenic Conference in History, Philosophy and Science Education* (8-11 May 2003, University of Athens) — peer reviewed.
30. Karakostas, V. (2005c), “From Space and Time to Space-Time: Philosophical Implications of Relativity Theory” («Από τον Χώρο και Χρόνο στον Χωρόχρονο: Φιλοσοφικές Συνέπειες της Θεωρίας της Σχετικότητας»), Two-Days Conference on “*Philosophical Perspectives of Einstein’s Theories*” organized by the French Institute of Athens (19-20 December 2005, Athens) — invited speaker.
31. Karakostas, V. (2006a), “Epistemological Relativism and Relativity Theory” («Γνωσιολογικός Σχετικισμός και Θεωρία Σχετικότητας»), *Tenth Hellenic*

Conference of Philosophy on the topic “*Philosophy of Sciences*” (6-8 May 2006, Aristotle University of Thessaloniki) — invited speaker.

32. Karakostas, V. (2006b), “Philosophy and Contemporary Physics: Reality and Perception in the Natural World” («Φιλοσοφία και Σύγχρονη Φυσική: Πραγματικότητα και Νόηση στον Φυσικό Κόσμο»), Series of lectures on “*Philosophy and Science*” organized by the Department of Philosophy and History of Science (17 January 2006, University of Athens).
33. Karakostas, V. (2007b), “The Decline of Humean Supervenience” («Η Πτώση της Χιουμιανής Επιγένεσης»), Scientific workshop organized by the Department of Philosophy and History of Science (May 2007, University of Athens).
34. Karakostas, V. (2007c), “Heraclitus and Modern Physics” («Ηράκλειτος και Σύγχρονη Φυσική»), Scientific workshop on “*Heraclitus and Modern World*” (November 2007, Athens) — invited speaker.
35. Karakostas, V. (2008b), “The Role of the Perceiving Subject in Contemporary Physics” («Ο Ρόλος του Υποκειμένου στη Σύγχρονη Φυσική»), *Eleventh Hellenic Conference of Philosophy* on the topic “*The Notion of Subject and her Transformations*” (17-19 October 2008, University of Patras) — peer reviewed.
36. Karakostas, V. (2009c), “Conceptions of Objectivity in Physics” («Έννοιες Αντικειμενικότητας στη Φυσική»), Series of lectures on “*Object and Objectivity*” organized by the Department of Philosophy and History of Science (7 April 2009, University of Athens).
37. Karakostas, V. (2009d), “On the Irreducible Character of the Notion of Probability in Quantum Mechanics” («Ο Μη-Αναγώγιμος Χαρακτήρας της Έννοιας της Πιθανότητας στην Κβαντική Μηχανική»), Scientific workshop organized by the Department of Physics of the University of Athens (17 February 2009, University of Athens) — invited speaker.
38. Karakostas, V. (2009e), Coordinator of symposium on “Realism and Objectivity in Quantum Physics” («Ρεαλισμός και Αντικειμενικότητα στην Κβαντική Φυσική»), *Fifth Hellenic Conference in History, Philosophy and Science Education* on the topic “*The Fundamental Scientific Theories in the Didactics of Natural Sciences*” (11-14 June 2009, University of Cyprus) — invited coordinator.
39. Karakostas, V. (2010b), “Truth and Contemporary Science: From the Transcendence Condition to Transcendental Reasoning” («Αλήθεια και Σύγχρονη Επιστήμη: Από την Υπερβατική στην Υπερβατολογική Σκέψη»), *First Hellenic Conference in Philosophy of Science* (15-17 October 2010, University of Athens) — peer reviewed.
40. Karakostas, V. (2012), “Truth as Correspondence and Modern Physics” («Θεωρία Αλήθειας ως Αντιστοιχίας και Σύγχρονη Φυσική»), *Second Hellenic Conference in Philosophy of Science* (29 November – 1 December 2012, University of Athens) — peer reviewed.

41. Karakostas, V. (2014b), “The Innovative Dimension of Category Theory in Contemporary Philosophy of Science”, («Η Καινοτόμος Διάσταση της Θεωρίας Κατηγοριών στη Σύγχρονη Φιλοσοφία των Επιστημών»), *Third Hellenic Conference in Philosophy of Science* (27-29 November 2014, University of Athens) — peer reviewed.

SUPERVISION AND EXAMINATION OF DOCTORAL THESES

A. Completion of Doctoral Theses

The following four (4) Ph.D. theses in Philosophy of Physics have been successfully completed under my supervision:

1. “Conceptual Change and Scientific Rationality: Niels Bohr and the Problem of Physical Reality in Quantum Physics” (P. Hadzidaki, University of Athens, June 2006).
2. “On the Ontological Nature of Space-Time in Contemporary Physics and its Relation to Quantum Non-Separability” (V. Livanios, University of Athens, December 2006, Research Programme “HERACLITUS I”).
3. “The Logic of Transition from Classical to Quantum Physics in the Light of Modern Mathematical Developments” (V. Sakellariou, University of Athens, February 2007).
4. “The Process Philosophy of Alfred North Whitehead as Interpretative Framework of Conceptual Problems in Quantum Mechanics” (K. Papadopoulos, University of Athens, January 2011).

B. Supervision of Doctoral Theses in Progress

Principal Supervisor of two (2) Ph.D. theses in progress in Philosophy of Physics:

1. “On the Problem of Realism and the Notion of Truth in Quantum Mechanics” (M. Nikolaou, University of Athens, February 2011, Research Programme “HERACLITUS II”).
2. “Neo-Kantian Transcendental Epistemology and Modern Physics: The Problem of Propositional Truth” (N. Karavokiris, University of Athens, October 2011).

C. Membership in Ph.D. Advisory Committees

Member of the advisory committee of the following Ph.D. theses, both of which have been completed by the respective dates:

1. “Causality and Probability: Towards a New Perspective of the Cause-Effect Relationship” (N. Bisketzis, University of Athens, December 2010).
2. “Investigating the Possibility of a Realist Comprehension of Quantum Physics” (M. Panagiotatou, National Technical University of Athens, April 2011).

D. Membership in Ph.D. Examination Committees

Member of the examination committee of the following Ph.D. theses:

1. “Structural Realism: Problems and Prospects” (P. Georgiadis, University of Athens, December 2010).
2. “Causal Processes and Locality in Classical and Quantum Mechanics” (X. Stergiou, National and Technical University of Athens, July 2011).
3. “The Contextual and Modal Character of Quantum Mechanics: A Formal and Philosophical Analysis in the Foundations of Physics” (C. De Ronde, University of Utrecht, Supervisors: D. Dieks & D. Aerts, Member of the Reading Committee, 14/11/2011).
4. “The Problem of Measurement in Quantum Mechanics and the Concept of Information in Quantum Informatics” (P. Prapas, University of Ioannina, January 2013).
5. “Three Aspects of the Quantum Gravitational Field” (A. Spanou, National and Technical University of Athens, July 2014).

E. Supervision of M.Sc. Dissertations

During my service in the University of Athens, fifteen (15) Master of Science (M.Sc.) dissertations have been completed under my supervision.

TEACHING EXPERIENCE

A. University of Cambridge

Instructor of final year undergraduate students in the University of Cambridge undertaking courses in “Philosophy of Space and Time” and “Philosophy of Quantum Mechanics” (1994-1995).

Tutor of a group of graduate students in topics of History and Philosophy of Science as members of Hughes College of the University of Cambridge (1995-1996).

B. University of Athens

During my service in the University of Athens taught the following undergraduate and postgraduate courses:

B1. Undergraduate Courses: Philosophy of Science I, Philosophy of Science II, Philosophy of Space and Time, Theories of Truth, History of Philosophy IV: 19th – 20th century (with Dr. Bougas), History and Philosophy of Natural Sciences (Department of Physics, with Dr. Arabatzis).

B2. Postgraduate Courses: Philosophy of Quantum Mechanics, Conceptual Foundations of Space-Time Theories, Special Topics in Philosophy of Quantum Mechanics, Truth and Contemporary Science (with Dr. Stephanou), Research Seminar in Philosophy of Modern Physics, Philosophy of Science (Department of Chemistry, Graduate Programme DIXHNET).

B3. Students Exchange Programmes:

1. Teaching in the English language in the form of tutorials in topics of “Philosophy of Science II”, during the winter semester 2012-2013, in the Erasmus Programme student Ignasi Triay (Faculty of Philosophy, University of Barcelona, Spain).
2. Teaching in the English language in the form of tutorials in topics of “Philosophy of Quantum Mechanics”, during the winter semester 2001-2002, in the exchange programme student Buket Korkut within the exchange framework between the University of Athens and Bogaziçi University, Turkey.

ADMINISTRATIVE EXPERIENCE

A. University of Cambridge

Member of the Governing Body of Hughes College as Post-Doctoral Research Fellow, University of Cambridge (1995-1997).

B. University of Athens

1. Director of the Division of “Philosophy of Science” at the Department of Philosophy and History of Science, University of Athens (2014-2015).
2. Member of the selection committee of Ph.D. candidates for the postgraduate programme at the University of Athens in “History and Philosophy of Science and Technology” (1998-2000, 2002-2003, 2006, 2008, 2010, 2014).
3. Member of the examination committee of M.Sc. candidates for the postgraduate programme at the University of Athens in “History and Philosophy of Science and Technology” (2001, 2003, 2006-2007, 2009, 2011-2014).
4. Chair of the preceding committee for the academic years 2012-2014.
5. Member of the General Assembly of the Department of Philosophy and History of Science (1998 – present).

ORGANIZATION OF CONFERENCES AND SEMINARS

1. Co-organizer of the *1st Hellenic Conference in Philosophy of Science* (Athens, 15-17 October, 2010).
2. Member of the Organizing Committee of the *3rd European Philosophy of Science Association Conference (EPSA)* (Athens, 5-8 October, 2011).
3. Coordinator of research seminars in philosophy of physics (1999 – present).

MEMBER OF SCIENTIFIC COMMITTEES

1. Member of the advisory body of the journal *Neusis* (The Greek Journal for the History and Philosophy of Science and Technology).
2. Member of the advisory body of the journal *Analytica* (International E-Journal in Philosophy of Science).

3. Member of the review committee of the 23rd *World Congress of Philosophy* (Athens, 4-10 August, 2013).
4. Member of the scientific committee of the 2nd *Hellenic Conference in Philosophy of Science* (Athens, 29 November – 1 December, 2012).
5. Member of the scientific committee of the 3rd *Hellenic Conference in Philosophy of Science* (Athens, 27-29 November, 2014).
6. Member of the scientific committee of the *Hellenic Conference in History, Philosophy and Science Education* (University of Cyprus, 11-14 June, 2009).
7. Member of the reading committee of Christian de Ronde's Ph.D. Thesis "The Contextual and Modal Character of Quantum Mechanics: A Formal and Philosophical Analysis in the Foundations of Physics" (University of Utrecht, The Netherlands, 14 November 2011).

MEMBER OF ACADEMIC ASSOCIATIONS

- European Philosophy of Science Association
- Philosophy of Science Association
- New York Academy of Sciences
- Cambridge Philosophical Society
- Hellenic Philosophical Association

ACADEMIC REFEREE

A. Reviews of Research Papers: Reviewer of 22 research papers for the journals *Studies in History and Philosophy of Modern Physics* (8), *Synthése* (2), *Axiomathes* (1), *Mathematical Reviews* (1), *International Journal of Physical Sciences* (1), *Entropy/Special Issue: Quantum Information* (1), *Science & Education* (2), *Humana Mente/Journal of Philosophical Studies* (1), *Analytica* (1), *Neusis* (2) (Journal for the History and Philosophy of Science and Technology – Greece), *Deucalion* (1) (Journal for Philosophical Research and Critique – Greece), *Proceedings of "Computability in Europe 2007"*, June 18-23, Siena, Italy (1).

B. Reviews of Conference Abstracts: Reviewer of 47 abstracts for the conferences: 2nd *Hellenic Conference in Philosophy of Science* (Athens, 2012) (19), 23rd *World Congress of Philosophy* (Athens, 2013) (17), 3rd *Hellenic Conference in Philosophy of Science* (Athens, 2014) (11).

RESEARCH PROGRAMMES

1. Scientific advisor of the research programme "On the Ontological Nature of Space-Time in Contemporary Physics and its Relation to Quantum Non-Separability", HERACLITUS I, 2002-2006, 70/3/7181.
2. Scientific advisor of the research programme "On the Problem of Realism and the Notion of Truth in Quantum Mechanics", HERACLITUS II, 2011-2015, 70/3/11010.

3. Member of the main research group of the programme “Aspects and Prospects of Realism in the Philosophy of Science and Mathematics”, THALIS, 2012-2015, 70/3/11604.

RESEARCH INTERESTS

Philosophy and Conceptual Foundations of Quantum Mechanics, Quantum Logic, Category Theory, Philosophy of Science, Theories of Truth, Realism/Antirealism Debate in Science, Philosophy of Space and Time, Epistemology of Contemporary Physics (neo-kantian approaches).

CITATIONS

One hundred and forty two (142) references appear to cite my work as they are located in the following ninety five (95) cases. Self-references are not included. Nor references are included to the volume “*EPSA11 Perspectives and Foundational Problems in Philosophy of Science*” (2013), which, one year after its publication, amount to twenty three (23).

A. International Scientific Journals

- 1) *Foundations of Physics*, 1995, Vol. 25, No. 3, pp. 423-440.
- 2) *International Studies in the Philosophy of Science*, 1995, Vol. 9, No. 3, pp. 235-253.
- 3) *Synthese*, 1995, Vol. 102, No. 1, pp. 61-97.
- 4) *Physics Reports*, 1998, Vol. 295, No. 3-4, pp. 94-180.
- 5) *Apeiron*, 1999, Vol. 6, pp. 9-23.
- 6) *Theoria*, 1999, Vol. 14, No. 3, pp. 489-510.
- 7) *Cadernos de História e Filosofia da Ciência*, 1999, Vol. 9, No. 1-2 (Nov. – Dec.).
- 8) *Revista Latinoamericana de Filosofia*, 1999, Vol. 25, No. 1, pp. 69-87.
- 9) *Diálogos*, 2000, Vol. 35, pp. 37-56.
- 10) *Studies in History and Philosophy of Modern Physics*, 2000, Vol. 31B, No. 2, pp. 129-133.
- 11) *Studies in History and Philosophy of Modern Physics*, 2000, Vol. 31B, No. 2, pp. 201-226.
- 12) *Themes in Education*, 2002, Vol. 3, pp. 35-48.
- 13) *Science Education*, 2003, Vol. 87, No. 2, pp. 257-280.
- 14) *Studies in History and Philosophy of Modern Physics*, 2004, Vol. 35B, No. 1, pp. 1-30.
- 15) *Physics Reports*, 2005, Vol. 413, No. 6, pp. 319-396.
- 16) *Scientiae Studia*, 2007, Vol. 5, pp. 139-167.
- 17) *Science & Education*, 2008, Vol. 17, No. 1, pp. 49-73 [2 citations: papers (6), (7)].
- 18) *Science & Education*, 2008, Vol. 17, No. 6, pp. 613-639 [2 citations: papers (6), (7)].
- 19) *Journal for General Philosophy of Science*, 2008, Vol. 39, No. 2, pp. 383-394.
- 20) *Dialectica*, 2009, Vol. 63, No. 2, pp. 195-204.
- 21) *Journal of Mathematical Physics*, 2009, Vol. 50, No. 4, 042902.

- 22) *Philosophica*, 2010, Vol. 83, pp. 85-117.
- 23) *Revista Brasileira de Ensino de Ciência e Tecnologia*, 2011, Vol. 4, No. 3)
- 24) *Humana Mente*, 2011, Vol. 19, pp. 79-104.
- 25) *Axiomathes*, 2011, Vol. 21, pp. 3-32.
- 26) *Cuadernos de Neuropsicologia*, 2012, Vol. 6, No. 2, pp. 14-23.
- 27) *Life*, 2012, Vol. 2, pp. 1-105.
- 28) *Axiomathes*, 2012, Vol. 22, No 1, pp. 147-169 [**2 citations**: papers (6), (10)].
- 29) *Revue Philosophique*, 2012, Vol. 24, pp. 78-103 [**2 citations**: papers (6), (12)].
- 30) *Scientiae Studia*, 2012, Vol. 10, No. 1, pp. 137-164.
- 31) *Studies in History and Philosophy of Modern Physics*, 2012, Vol. 43, pp. 1-24.
- 32) *Philosophical Studies*, 2012, Vol. 160, pp. 97-113.
- 33) *Philosophical Studies*, 2013, Vol. 163, pp. 133-149.
- 34) *Science & Education*, 2014, Vol. 23, pp. 1011-1030.
- 35) *The Royal Society of Chemistry: Chemistry Education Research and Practice*, 2014, Vol. 15, pp. 286-296.
- 36) *International Journal for Philosophy of Religion*, 2014, 1-17.
- 37) *Erkenntnis*, 2014, DOI 10.1007/s10670-014-9672-3.
- 38) *Foundations of Physics*, 2014, DOI 10.1007/s10701-014-9842-9.

B. Scientific Books

- 1) Cushing, J., Fine, A., Goldstein, S. (eds.) (1996), *Bohmian Mechanics and Quantum Theory: An Appraisal* (Boston Studies in the Philosophy of Science, Vol. 184), New York: Springer; Chapter 1: “The Causal Quantum Theory Program”, pp. 17, 390, 401.
- 2) Stenger, V. J. (2000), *Timeless Reality*, New York: Prometheus Books; Chapter 8: “The Timeless Quantum”, p. 186; Chapter 9: “Modeling Matter”, pp. 218, 220; Chapter 11: “Particle Reality”, p. 264.
- 3) Machamer, P., Silberstein, M. (eds.) (2002), *The Blackwell Guide to the Philosophy of Science*, Oxford: Blackwell; Chapter 9: “Philosophy of Space-Time Physics”, pp. 183, 184, 197.
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- 4) Joos, E., Zeh, H. D., Kiefer, C., Giulini, D., Kupsch, J., Stamatescu, I. (authors) (2003), *Decoherence and the Appearance of a Classical World in Quantum Theory*, Second Edition, Berlin: Springer; Chapter 8: “Stochastic Collapse Models”, pp. 376, 474.
- 5) Landsberg, P. (2003), *Seeking Ultimates: An Intuitive Guide to Physics*, Second Edition, London: Institute of Physics Publishing; Chapter 4: “Time and Entropy: Science and the Unity of Knowledge”, pp. 85, 283, 298.
- 6) Boudouris, K., Kalimtzis, K. (eds.) (2005), *Proceedings of the First World Olympic Congress of Philosophy*, Vol. II, Athens: Ionia Publications, pp. 128, 130, 259, 260, 261 [**3 citations**: papers (2), (6)2].

- 7) Borchert, D. (ed.) (2006), *Encyclopedia of Philosophy* (2nd edition), Vol. 2, Macmillan Publishing USA, p. 525.
- 8) Jammer, M. (2006), *Concepts of Simultaneity: From Antiquity to Einstein and Beyond*, Baltimore: Johns Hopkins University Press; Chapter 15: "Simultaneity in General Relativity and in Quantum Mechanics", pp. 287, 288, 304.
- 9) Reynoso, C. (2006), *Complejidad y Caos* (Coleccion de Complejidad Humana), Buenos Aires: SB, pp. 70, 281.
- 10) Butterfield, J., Earman, J. (eds.) (2007), *Philosophy of Physics*, Amsterdam: Elsevier; Part B, Chapter 1: "Compendium of the Foundations of Classical Statistical Physics", pp. 934, 977, 1114.
- 11) Ellison, M.D., Schoolcraft, T.A. (eds.) (2007), *Advances in Teaching Physical Chemistry*, New York: Oxford University Press, American Chemical Society, p. 112.
- 12) Tsaparlis, G. (2007), *ACS symposium series*, Vol. 973, Oxford: Oxford University Press, pp. 75-112.
- 13) Rickles, D. (ed.) (2008), *The Ashgate Companion to Contemporary Philosophy of Physics*, London: Ashgate, pp. 168, 190.
- 14) Ginev, D. (2011), *The Tenets of Cognitive Existentialism* (Series in Continental Thought), Ohio: Ohio University Press, pp. 178, 189, 196.
- 15) Ruiz, P. (2011), "Principales Aportes de la Fisica Cuántica al Estudio de la Consciencia" in III Congreso Internacional de Investigación y Práctica Profesional en Psicología, Facultad de Psicología, Universidad de Buenos Aires, Buenos Aires, pp. 87, 88.
- 16) Seroglou, F., Koulountzos, V., Siatras, A. (eds.) (2011), *Science and Culture – Proceedings of Eleventh International Conference in History, Philosophy and Science Teaching*, Aristotle University of Thessaloniki, Epikentro Publications, pp. 325, 329.
- 17) Landry, E.M., Rickles, D.P. (eds.) (2012), *Structural Realism*, The Western Ontario Series in Philosophy of Science, Springer, pp. 125, 132.
- 18) Lobarca, M., Lombardi, O. (2013), *Irreversibilidad y Pluralismo Ontológico: Una Reflexión Acerca de los Fundamentos de la Mecánica Estadística* (Colección Theoria Crítica), Buenos Aires: Imago Mundi, pp. 122, 125, 169.
- 19) Epperson, M., Zafiris, E. (2013), *Foundations of Relational Realism: A Topological Approach to Quantum Mechanics and the Philosophy of Nature*, Maryland: Lexington Books; Chapter 9: "Functorial Entanglement and Logical Classification", pp. 326, 392.
- 20) Matthews, M.R. (ed.) (2014), *International Handbook of Research in History, Philosophy and Science Teaching*, Dordrecht: Springer; Chapter 7: "Meeting the Challenge: Quantum Physics in Introductory Physics Courses", pp. 196, 198, 207.
- 21) Matthews, M.R. (ed.) (2014), *International Handbook of Research in History, Philosophy and Science Teaching*, Dordrecht: Springer; Chapter 12: "Historical Teaching of Atomic and Molecular Structure", pp. 357, 369.
- 22) Zahle, J., Collin, F. (eds.) (2014), *Rethinking the Individualism-Holism Debate*, Heidelberg: Springer, p. 134.
- 23) Kistler, M. (2015), "Potentiality in Physics" forthcoming in K. Engelhard et al. (eds.), *Handbook of Potentiality*, Berlin: Springer.

C. *Scientific Archives*

Philosophy of Science Pittsburgh Archive; Los Alamos Quantum Physics Archive

- 1) Edens, B. (2001), “Semigroups and Symmetry: An Investigation of Prigogine’s Theories”, *philsci-archive/0000436*, pp. 66, 68, 75, 76, 84, 85, 88, 102, 133, 134, 135, 142, 155.
- 2) Bishop, R. (2003), “Similarity Transformations Between Deterministic and Probabilistic Descriptions”, *arXiv:physics/0304018v3*, pp. 5, 6, 18, 22.
- 3) Bishop, R. (2003), “Brussels-Austin Nonequilibrium Statistical Mechanics: Large Poincaré Systems and Rigged Hilbert Space”, *PhilPapers*, pp. 5, 9, 30.
- 4) Uffink, J. (2006), “Compendium of the Foundations of Classical Statistical Physics”, *philsci-archive/2691*, 2006, pp. 13, 157.
- 5) Domenech, G. et al. (2007), “The Contextual Character of Modal Interpretations of Quantum Mechanics”, *quant-physics: 0705.1660*, pp. 18, 20.
- 6) De Ronde, C. (2007), “Understanding Quantum Mechanics Through the Complementary Descriptions Approach”, *quant-physics: 0705.3850*, pp. 10, 14, 16, 18, 19.
- 7) Livadas, S. (2007), “The Expressional Limits of Formal Languages in the Notion of Observation”, *quant-physics: 0711.4155*, pp. 14, 15, 20.
- 8) Emerson, J.C. (2009), “Interpreting Quantum Nonlocality as Information”, M.Sc. Thesis, Department of Philosophy, San Jose State University, USA, pp. 95, 128.
- 9) Vetter, B. (2010), “Potentiality and Possibility”, Ph.D. Thesis, Faculty of Philosophy, Oxford University, pp. 61, 161 [**2 citations**: papers (10), (12)].
- 10) Pitts, J.B. (2011), “The Nontriviality of Trivial General Covariance: How Electrons Restrict ‘Time’ Coordinates”, *arXiv: general relativity/1111.4586v1*, pp. 50, 66.
- 11) De Ronde, C. (2011), “The Contextual and Modal Character of Quantum Mechanics: A Formal and Philosophical Analysis in the Foundations of Physics”, Ph.D. Thesis, Institute for History and Foundations of Natural Sciences, Utrecht University, pp. 15, 58, 183 [**4 citations**: papers (6), (7) (10), (12)].
- 12) Cardoso, A.M.M. (2011), “Física e Contemporaneidade no Ensino Secundario”, Ph.D. Thesis, University of Aveiro, Portugal, pp. 67, 96, 249.
- 13) Inman, R. (2013), “Substantial Priority: An Essay in Fundamental Mereology”, Ph.D. Thesis, Department of Philosophy, Trinity College, Dublin, pp. 154, 156, 165, 198, 249 [**2 citations**: papers (10), (12)].
- 14) Baloch, F. (2014), “Theorising the Internet and its Governance”, Ph.D. Thesis, School of Computing and Mathematical Sciences, Auckland University of Technology, pp. 198, 360.
- 15) De Ronde, C., Freytes, H., Domenech, G. (2014), “Quantum Mechanics and the Interpretation of the Orthomodular Square of Opposition”, *quant-physics: 1404.5948*, pp. 5, 16.

D. Hellenic Scientific Journals and Books

- 1) *Celestia*, 2009, Vol. 1, No. 2, pp. 104-108 [**2 citations**: papers (21), (24)].
- 2) *Philosophy and Culture (Φιλοσοφία και Παιδεία)*, 2010, Vol. 56, pp. 7-10.
- 3) *Neusis*, 2010, Vol. 19, pp. 140-153.
- 4) Livanios, V. (2006), “On the Ontological Nature of Space-Time in Contemporary Physics and its Relation to Quantum Non-Separability”, Ph.D. Thesis, University of Athens [**2 citations**: papers (6), (24)].
- 5) Redhead, M. (2006), *From Physics to Metaphysics*, transl. G. Katsilieris and A. Samartzis, Introduction L. Euaggelopoulos, University of Crete Press, p. xix.
- 6) Hadzidaki, P. (2006), “Conceptual Change and Scientific Rationality: Niels Bohr and the Problem of Physical Reality in Quantum Physics”, Ph.D. Thesis, University of Athens [**7 citations**: papers (6), (7), (10), (12), (21), (22), (24)].
- 7) Katsikis, A. et al. (eds.) (2007), Proceedings of Fifth Hellenic Conference in Didactics of Physical Sciences, University of Ioannina, Vol. II, pp. 562, 563, 564.
- 8) Koliopoulos, D. (ed.) (2007), Proceedings of Fourth Hellenic Conference in History, Philosophy and Science Education, University of Patras, pp. 64, 66, 70, 157, 158, 160, 161 [**4 citations**: papers (6), (7), (21), (24)].
- 9) Sakellariou, V. (2007), “The Logic of Transition from Classical to Quantum Physics in the Light of Modern Mathematical Developments”, Ph.D. Thesis, University of Athens [**3 citations**: papers (6), (10), (24)].
- 10) Sfendoni, D. (ed.) (2008), *Philosophy of Sciences*, Thessaloniki: Ziti Publications, Vol. I, p. 165.
- 11) Sfendoni, D. (ed.) (2008), *Philosophy of Sciences*, Thessaloniki: University of Thessaloniki Publications, Vol. II, pp. 47, 48, 53, 54, 55, 56, 58, 59, 67, 68 [**3 citations**: papers (6), (10), (24)].
- 12) Kariotoglou, P. (ed.) (2009), Proceedings of Sixth Hellenic Conference in Didactics of Physical Sciences, University of Western Macedonia, pp. 935, 937.
- 13) Korfiatis, K. et al. (eds.) (2009), *The Fundamental Scientific Theories in the Didactics of Natural Sciences*, Proceedings of Fifth Hellenic Conference in History, Philosophy and Science Education, Nicosia: University of Cyprus Publications, pp. 48, 51, 52, 55, 56, 57, 58, 61, 298, 304 [**5 citations**: papers (6)2, (24)2, (26)].
- 14) Bisketzis, N. (2010), “Causality and Probability: Towards a New Perspective of the Cause-Effect Relationship”, Ph.D. Thesis, University of Athens.
- 15) Damianos, P. (2010), “The Realism of Common Sense and the Non-Conceptual Content of Perception”, Ph.D. Thesis, National Technical University of Athens [**2 citations**: papers (6), (24)].
- 16) Bartzeliotis, L., Dellis, I. (2011), *The Concept of the Divine in its Intertemporal Dimension*, Publications of Olympic Center of Philosophy and Culture, pp. 263, 273.
- 17) Papadopoulos, K. (2011), “The Process Philosophy of Alfred North Whitehead as Interpretative Framework of Conceptual Problems in Quantum Mechanics”, Ph.D. Thesis, University of Athens [**9 citations**: papers (1), (2), (6), (10), (12), (13), (21), (24); books (2)].

- 18) Panagiotatou, M. (2011), “Investigating the Possibility of a Realist Comprehension of Quantum Physics”, Ph.D. Thesis, National Technical University of Athens [**5 citations**: papers (6), (10), (21), (24); books (2)].
- 19) Prapas, P. (2013), “The Problem of Measurement in Quantum Mechanics and the Concept of Information in Quantum Informatics”, Ph.D. Thesis, University of Ioannina [**5 citations**: papers (10), (15) (24), (29); books (2)].