

Curriculum Vitae | Dr. Panagiota Theodoni

August 2024

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Name Panagiota Theodoni (Παναγιώτα Θεοδώνη)
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Academic Education

November 2022 - present MA, [Philosophy](#)
Specialization: History of Philosophy and Ideas
University of Athens, Greece (online)

2014 PhD, [Theoretical/Computational Neuroscience](#)
Pompeu Fabra University, Barcelona, Spain
Marie Curie Early-Stage Research Fellow
FP7 European Initial Training Network "Coordination for
Optimal Decisions in Dynamical Environments (CODDE)"
Doctoral thesis: *Fluctuations in perceptual decisions*
(cortical micro- circuit dynamics mediating alternations in conscious
visual perception)
Supervisor: Gustavo Deco
Committee: Nikos Logothetis, Nava Rubin and Rubén Moreno-Bote

2007 MSc, [Condensed Matter Physics](#)
University of Athens, Athens, Greece
Master thesis: *Optical properties of metal-dielectric microstructures*
Supervisors: Nikos Papanikolaou, Nikolaos Stefanou

2005 BSc, [Physics](#)
University of Athens, Athens, Greece
Diploma thesis: *Development of thin films under ultra-high vacuum*
conditions
Supervisor: Emmanouil Syskakis

October 2001 - June 2002 Exchange Student, Socrates/Erasmus European Program
Department of Physics, University of Seville, Spain

Teaching - Mentoring

Fall 2022, Fall 2024	Adjunct Professor - Graduate Course: Computational Neuroscience Open University of Cyprus, MSc Cognitive Systems, Cyprus (online)
Fall 2022, Fall 2023, Spring 2024, Fall 2024	Adjunct Professor - Undergraduate Course: Consciousness on history, philosophy and science of consciousness Psychology and Neuroscience academic disciplines College Year in Athens, Athens, Greece
Spring 2024	Adjunct Professor – Undergraduate Courses: 1. Introduction Research Methods in Cognitive Neuroscience 2. Psychology and Neurobiology of Language Panteion University, Department of Psychology, Athens, Greece
Jan 2023 – present	External Lecturer and, Principal Supervisor of the master thesis of Chrysi Serefidou on “Quantum Theories of Consciousness” MSc Cognitive Science, National and Kapodistrian University of Athens Department of History and Philosophy of Science, Athens, Greece
Sept 2019 – Aug 2021	Co-Mentor of the research internship of Ulysse Klatzmann on his project “A connectome-based model of conscious access in monkey cortex” in Xiao-Jing Wang’s Lab New York University, Center for Neural Science, NY, USA
Sept 2021 – Aug 2021	Co-Mentor of the rotation project of the Research Assistant Yijie Kang on her project on analysis of the Allan’s Institute gene expression data, in Xiao-Jing Wang’s Lab New York University, Center for Neural Science, NY, USA
July 2014	Teaching Assistant at the summer school in Theoretical and Computational Neuroscience, Barcelona, Spain
May 2007 - July 2007	Physics laboratory Teacher of Molecular Physics-Thermodynamics, Physics Department, University of Athens, Greece
2003 - 2007	Physics, Mathematics, Chemistry, and Biology (secondary education) private Tutor, Athens, Greece
2006 – 2007	Spanish language Teacher, language school, Athens, Greece
2005 - 2007	Spanish language Tutor, private tutoring, Athens, Greece

Research work history

September 2021 - present	Independent Principal Investigator, on <ul style="list-style-type: none">- Foundations of Science- Artificial Neural Networks for Consciousness- Comparing Artificial Neural Networks for Working Memory across species, in collaboration with XJ Wang lab, NYU Center for Neural Science, NY, USA
September 2021 – August 2023	Visiting Scholar, sponsored by David Chalmers, Center for Mind, Brain and Consciousness, Department of Philosophy, New York University, New York, USA
November 2018 – August 2021	Postdoctoral Research Fellow (Theoretical/Computational Neuroscience), PI Xiao-Jing Wang, Center for Neural Science, New York University, New York, USA
August 2018	Offer of a Research Scientist position (Assistant Professor level) by the Shanghai Advanced Research Institute, Chinese Academy of Sciences , Center for Intelligent Information and Communications Technology Research and Development, Shanghai, China (which I rejected)
July 2016 – June 2018	Global Postdoctoral Fellow (Theoretical/Computational Neuroscience), PI Xiao-Jing Wang, New York University Shanghai, and NYU-ECNU Institute of Brain and Cognitive Science at NYU Shanghai, Shanghai, China
March 2014 - December 2015	Postdoctoral Research Fellow (Theoretical/Computational Neuroscience), PI Alex Roxin, Computational Neuroscience Group, Centre de Recerca Matemàtica, Bellaterra (Barcelona), Spain
June 2007 - March 2008	External Research Fellow (Theoretical/Computational and Experimental Physics), PI Nikos Papanikolaou, Institute of Microelectronics, National Center for Scientific Research Demokritos, Athens, Greece

Academic Publications

[A connectome-based model of conscious access in monkey cortex](#)

U. Klatzmann, S. Froudust-Walsh, D. P. Bliss, **P. Theodoni**, J. Mejías, M. Niu, L. Rapan, N. Palomero-Gallagher, C. Sergent, S. Dehaene, and X.-J. Wang. 2023 *bioRxiv*.

[Decorrelated discharge fluctuations in prefrontal microcircuits during visual consciousness](#)

P. Theodoni, V. Kapoor, G. Deco, N. K. Logothetis, and T. I. Panagiotaropoulos. *Under Review*

[Structural attributes and principles of the neocortical connectome in the marmoset monkey](#)

P. Theodoni, P. Majka, D. H. Reser, D. K. Wójcik, M. G.P. Rosa, X. -J. Wang.
Cerebral Cortex 2021, 00:1-14

[Open access resource for cellular-resolution analyses of corticocortical connectivity in the marmoset monkey](#)

P. Majka, S. Bai, S. Bakola, S. Bednarek, J. M. Chan, N. Jermakow, L. Passarelli, D. H. Reser, **P. Theodoni**, K. H. Worthy, X.-J. Wang, D. K. Wójcik, P. P. Mitra, and M. G. P. Rosa.
Nature Communications 2020, 11:1133

[Theta-modulation drives the emergence of network-wide connectivity patterns underlying replay in a model of hippocampal place cells](#)

P. Theodoni, B. Rovira, Y. Wang, and A. Roxin. *eLife* 2018, 7:e37388

[Cortical microcircuit dynamics mediating binocular rivalry: The role of adaptation in inhibition](#)

P. Theodoni, T. I. Panagiotaropoulos, V. Kapoor, N. K. Logothetis, and G. Deco. *Frontiers in Human Neuroscience* 2011), 5(145): 1-19 Special Research topic "Binocular rivalry: a gateway to consciousness"

[Neuronal adaptation effects in decision making](#)

P. Theodoni, G. Kovács, M. W. Greenlee, and G. Deco. *The Journal of Neuroscience* 2011, 31(1): 234-246

[Efficient infrared emission from patterned thin metal films on a Si photonic crystal](#)

P. Theodoni, V. Em. Vamvakas, Th. Speliotis, M. Chatzichristidi, P. Bayiati, I. Raptis, and N. Papanikolaou. *Physica Status Solidi (a)* 2008, 205(11): 2581-2584

[Efficient infrared emission from periodically patterned thin metal films on a Si photonic crystal](#)

P. Theodoni, P. Bayiati, M. Chatzichristidi, Th. Speliotis, V. Em. Vamvakas, I. Raptis, and N. Papanikolaou. *Microelectronic Engineering* 2008, 85(5-6): 1112-1115

Grants, Scholarships & Awards

Nov 2018 – Aug 2021	ONR Grant N00014-17-1-2041 by Office of Naval Research as Postdoctoral Researcher
Mar 2014 – Dec 2015	BFU2012-33413 by Spanish Ministry of Economics and Competitiveness, as Postdoctoral Researcher
2012 – 2014	Brainglot research project by Consolider program as Doctoral Student
2008 – 2011	CODDE by FP7/2007-2013 European Training Marie Curie Network Grant 214728-2, as Marie Curie Early-Stage Research Fellow

Jun 2007 – Mar 2008	“Demoerevna” E-1437 by NCSR “Demokritos”, Athens, Greece as External Researcher
Oct 2001 – June 2002	Socrates/Erasmus by European Commission as exchange student for a study abroad academic year Department of Physics, University of Seville, Spain
June 1994	Award of music (guitar performance) Hellenic Republic, Labor Organization

Conference presentations

November 2023 – Talk	On the Foundations of Inter-Subjective Science: The problem of closing the Loop. P. Theodoni Cognitive Science Speakers Series, Fall 2023 CUNY Graduate Center, NYC, USA
October 2023 – Talk	Περί των θεμελίων της διυποκειμενικής επιστήμης – το πρόβλημα του Κλεισίματος του βρόχου (On the foundations of Inter-Subjective Science: The problem of closing the Loop) P. Theodoni Seminar of Master’s & PhD students, and postdocs, Fall 2023 National and Kapodistrian University of Athens, Department of History and Philosophy of Science, Athens, Greece
September 2023 - Talk	A multi-regional neural network model for conscious perception P. Theodoni Models of Consciousness 4 Mathematical Institute, University of Oxford, UK
September 2023 - Talk	Neuro-quantum phenomena and their relation to consciousness C. Serefidou, I. Skaliora, and P. Theodoni 6 th Panhellenic Conference of Cognitive Science Hellenic Cognitive Science Society, Xylokastro, Greece
September 2023 - Talk	A neural network model for consciousness, agnostic to the theories of consciousness, challenges their predictions P. Theodoni Challenges for current theories of consciousness Symposium 6 th Panhellenic Conference of Cognitive Science Hellenic Cognitive Science Society, Xylokastro, Greece

- September 2023 - Poster [A neural network model for the distributed nature of conscious content](#)
P. Theodoni
 6th Panhellenic Conference of Cognitive Science
 Hellenic Cognitive Science Society, Xylokastro, Greece
- June 2023 - Poster [A neural network model for the distributed nature of conscious content](#)
P. Theodoni
 Association for the Scientific Study of Consciousness (ASSC 26)
 NYU, New York City, NY, USA
- October 2019 – Poster [The marmoset mesoscale connectome structural attributes of the large-scale cortico-cortical connectivity in the marmoset monkey](#)
P. Theodoni, P. Majka, D. H. Reser, M. Rosa, and X.-J. Wang
 Society for Neuroscience Annual Meeting. Chicago, Illinois, USA
- November 2017 – Poster [Mesoscopic inter-areal connectivity of marmoset cortex: comparison with mouse and macaque monkey](#)
 P. Majka†, **P. Theodoni**†, D. H. Reser, M. Rosa, and X.-J. Wang
 (†equal contribution)
 Society for Neuroscience Annual Meeting. Washington, D.C., USA
- October 2015 - Poster [The encoding of episodic memory via spike-timing-dependent plasticity: a computational model](#)
P. Theodoni and A. Roxin
 Society for Neuroscience Annual Meeting. Chicago, Illinois, USA
- September 2015 – Poster [The encoding of episodic memory via spike-timing-dependent plasticity: a computational model](#)
P. Theodoni and A. Roxin
 Neural Coding, Computation & Dynamics Conference, Bilbao, Spain
- June 2015- Talk [The encoding of episodic memory via spike-timing-dependent plasticity: a computational model](#)
P. Theodoni
 Barcelona Computational and Systems Neuroscience Conference (BARCCSYN), Barcelona, Spain
- June 2012 - Poster [Cortical microcircuit dynamics in visual awareness](#)
P. Theodoni, T. I. Panagiotaropoulos, V. Kapoor, N. K. Logothetis, and G. Deco
 Areadne, Research in Encoding And Decoding of Neural Ensembles, Santorini, Greece
- November 2010 - Poster [Neuronal adaptation accelerates decisions](#)
P. Theodoni, G. Kovács, M. W. Greenlee, and G. Deco
 Society for Neuroscience Annual Meeting, San Diego, California, USA

- July 2010 - Poster [NeuroWhat?](#)
P. Theodoni
Euroscience Open Forum Marie Curie Satellite event, Torino, Italy
- September 2009 - Poster [High level adaptation: Integrated fMRI and spike-based model](#)
P. Theodoni, G. Deco, C. Cziraki, M. W. Greenlee, and G. Kovács
23rd Hellenic Society for Neurosciences Meeting, Rhodes, Greece
- November 2007 - Poster [Efficient IR emission from patterned thin metal films on a Si photonic crystal](#)
P. Theodoni, P. Bayiati, M. Chatzichristidi, Th. Speliotis, V. Em. Vamvakas, I. Raptis, and N. Papanikolaou
3rd International Conference on Micro-Nanoelectronics, Nanotechnology and Mems, NCSR Demokritos. Athens, Greece
- September 2007 - Poster [Patterned thin metal films on a Si photonic crystal for efficient IR emission](#)
P. Theodoni, P. Bayiati, M. Chatzichristidi, Th. Speliotis, V. Em. Vamvakas, I. Raptis, and N. Papanikolaou
33rd International Conference on Micro- and Nano- Engineering, Copenhagen, Denmark &
XXIII Panhellenic Conference on Solid State Physics, NCSR Demokritos, Athens, Greece

Invited talks

- November 2023 [On the Foundations of inter-Subjective Science: The Problem of Closing the Loop](#)
Cognitive Science Speaker Series Fall 2023
CUNY Graduate Center, NYC, USA
- October 2023 [Περί των θεμελίων της διποκειμενικής επιστήμης - το πρόβλημα του κλεισίματος του βρόχου](#)
National and Kapodistrian University of Athens
Department of History and Philosophy of Science, Athens, Greece
- October 2017 [Marmoset mesoscale connectome](#)
RIKEN Brain Science Institute, Tokyo, Japan
- October 2017 [Mind the Gap](#)
(a talk about the gender imbalance in science at the weSTEM x STEM, 2nd networking event)
New York University Shanghai, Shanghai, China
invited by the STEM NYU Shanghai's student club
- May 2014 [Fluctuations in Perceptual Decisions](#)
Centre de Recerca Matemàtica, Bellaterra, Spain

- March 2013 [Fluctuating states of visual awareness](#)
National Institutes of Health, Bethesda, Maryland, USA
invited by Biyu Jade He
- September 2012 [Neural dynamics of perceptual bistability](#)
Inria Sophia Antipolis - Méditerranée, NeuroMathComp Laboratory,
Sophia Antipolis, France
invited by Pierre Kornprobst and Olivier Faugeras
- December 2010 [Neuronal adaptation effects in perceptual decisions \(Past, present and future\)](#)
Netherlands Institute for Neuroscience, Amsterdam, The Netherlands
invited by Rainer Goebel and Christian Keysers

Lab visits

- August 2017 Janelia Research Campus, Virginia, USA
hosted by Keren Haroush
- November 2016 Department of Physiology, Monash University, Malbourne, Australia
hosted by Marcello Rosa
- April 2012 École des Neurosciences de Paris Île-de-France, Paris, France
hosted by Pascal Mamassian
- October 2009 Max Plank Insitute for Biological Cybernetics, Tübingen, Germany
hosted by Nikos Logothetis
- September 2008 Institut de Neurosciences des Systèmes, Faculty of Medicine,
Aix- Marseille University, Marseille, France
hosted by Viktor Jirsa

Further education: schools, courses, workshops

- November 2023 – present Seminar: Introduction to the history of philosophy - Cycle B:
Medieval and modern philosophy, by Fotis Terzakis.
Intercultural Studies Company. Athens, Greece
- November 2023 – present Workshop on creative writing, by Elissavet Liaropoulou.
Intercultural Studies Company. Athens, Greece
- Fall 2019 – Spring 2023 *Undergraduate courses:* [F2019] Minds and machines by David
Chalmers; Philosophy of Science by Tim Maudlin [S2020]
Consciousness by Ned Block [S2021] Consciousness by Matthias
Michel [Sum2021] Political Philosophy by Evan Behrle [F2021]
Ancient Greek and Roman Philosophy & Philosophy of Physics by

Tim Maudlin; Kant by Rosalind Chaplin [S2022] Logic & Philosophy of mind by Veronica Gomez Sanchez; Epistemology by Xueyin Zhang
Graduate course: [S2022] Research seminar on mind and language by Paul Horwich and Crispin Wright; Topics in Philosophy of physics by Tim Maudlin; Rationalism in the 17th century by Don Garrett; [S2023] Adv Intro Philosophy of Mind by Ned Block and Matthias Michel; History of Philosophy by Jessica Moss and Iakovos Vasiliou; Topics in Metaphysics by Paul Horwich
 NYU Philosophy Department, NY, USA

May 2022	summer school: Consciousness Neuroscience School of Advanced studies, Venice, Italy
March 2021	NYU Science Communication Workshop by Prof Brooke Borrel
January - March 2019	courses: Structuring Machine Learning Projects – Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization – Neural Networks and Deep Learning Coursera, deeplearning.ai
July - August 2011	summer school: Methods in Computational Neuroscience Marine Biological Laboratory, Woods Hole, Massachusetts, USA
October 2010	course: Advanced Modeling of Neuroimaging Data Faculty of Psychology and Neuroscience, University of Maastricht, Maastricht, The Netherlands
July 2010	summer school: Computational and Cognitive Neurobiology Cold Spring Harbor Asia, Suzhou, China
July 2010	summer school: Brain Imaging and its applications Marie Curie FP7, European Initial Training Network CODDE, Great Malvern, UK
June 2010	4 th Computational Neuroscience Summer School University of Ottawa, Centre for Neural Dynamics, Ottawa, Canada
August 2009	summer school: Computational Vision Marie Curie FP7, European Initial Training Network CODDE, Schloss Rauischholzhausen, Hessa, Germany
June 2004	16th Summer School in Advanced Physics Department of Physics, University of Crete, Crete, Greece
July 2003	Summer School in Materials National Center of Scientific Research “Demokritos”, Athens, Greece

March - May 2001

C++ Programming Course
Union of Greek Physicists, Athens, Greece

Scientific activities & public outreach

February 2022 – present

Founder of “Science as a Hobby”, events happening in person in public, whose mission is to bridge the gap between society and academia.

<https://ptheodoni.wixsite.com/home/science-as-a-hobby>

April 2020 – present

Founder of Neurotheoria (Νευροθεωρία) scientific page, in Greek, whose mission is to help develop research in theoretical and computational neuroscience in Greece where it is still underdeveloped <https://ptheodoni.wixsite.com/home/neurotheoria>

June - July 2022

Organizer of a writing workshop with academic peers, following the book “Write More, Write Better, Be Happier in Academia” by Dr. Barbara W. Sarnecka.

March 2020 – May 2021

Co-organizer of the distinguished NYU Swartz Seminar Series 2020-2021, New York City, USA

<https://www.cns.nyu.edu/activities/swartz/>

which we are proud to make accessible to everybody in the world and part of the World Wide Neuro platform

https://www.worldwideneuro.com/seminar-series.html?name=NYU_Swartz

May 2020 – July 2020

Co-organizer of the Neuromatch Academy summer school held from July 13 to July 31, 2020. Chair of the Regional/Time Zone/Language committee, Vice-Chair of Americas Zone of the same committee and member of the Executive committee.

<https://www.neuromatchacademy.org>

<https://www.simonsfoundation.org/2020/09/17/the-self-organized-movement-to-create-an-inclusive-computational-neuroscience-school/>

2017 – 2018

Organizer of the NYU-ECNU Institute of Brain and Cognitive Science weekly Journal Club, Shanghai, China

January 2018

External Referee of the PhD Thesis of Marina Vegué Llorente "A study of cortical network models with realistic connectivity" Universitat de Catalunya, Barcelona, Spain

November 2014	Social scientific event organization (together with Genis Prat, Joao Barbosa and Juan Pablo Ramirez-Mahaluf) for the lab retreat of the computational neuroscience labs of Barcelona, Vilallonga de Ter, Spain
July 2014	Assisting at the organization of the Barcelona Computational and Systems Neuroscience Conference (BARCCSYN), Barcelona, Spain
September 2007	Assisting at the organization of the XXIII Panhellenic Conference on Solid State Physics, NCSR, Demokritos, Athens, Greece
2004	Collaboration with Prof. E. M. Kyriakopoulos for editing his lectures Notes on Quantum Mechanics, National Technical University of Athens, Greece
2003	Collaboration with Prof. A. Konsta for translating in Greek the U.C. Berkeley Physics Lectures II "Electricity and Magnetism", National Technical University of Athens, Greece

Languages

Greek Native

English Fluently

- First Certificate in English - Cambridge University (1996)

Spanish Fluently

- DELE Superior (2003)

- Spanish Teaching License by the Greek Ministry of Education (2003)

- Training Course for Spanish Professors by Instituto Cervantes (October 2006 - January 2007)

French Very Good

- Certificat de langue Française (1996)

- DELF 1 (1999)

Italian Very Good

- CELI 3 (2000)

Chinese Initial

- HSK 1 (2018)

- HSK 2 (2018)

Skills

Software

- Data analysis and coding, modeling (Frotran, C++, Matlab, Python, R, LaTeX)

- Google Workspace, Microsoft Office, Trello, Overleaf, Canva
- Zoom, Crowdcast, Slack, Discord

Organization

- Expert in researching and affinity for learning
- Leadership, project management and work in teams experience
- Excellent writing and verbal communication skills: white papers, reports, invitation letters, presentation slides, posters, flyers, hosting discussions, science talks and papers
- Remote working experience

Communication

- Attendance of the [NYU writing workshop in science communication](#)
- Organizer of a writing workshop on academic writing, following [Dr. Sarnecka's book](#)
- Committed to open access science, diversity, inclusion, equity, and mentally healthy environments
- Adaptive, flexible, capable of noticing what needs to change and suggesting solutions
- Empathetic, collaborative, sincere, supportive
- Artistic designing: <http://phipsika.blogspot.com/>
- Proactive, creative, problem solver