

## PERSONAL INFORMATION

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Last name: **Karamanlis**  
First name: **Dimokratis**  
Nationality: Greek  
Date of birth: November 28, 1991  
Position: Postdoctoral researcher  
Email: [dimokaramanlis@gmail.com](mailto:dimokaramanlis@gmail.com)  
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## EDUCATION & TRAINING

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05/2022 **CAJAL Advanced Neuroscience Training**  
Neural circuit basis of computation and behaviour (France)  
Directors: Fritjof Helmchen, Andreas Frick, Cyril Herry  
Project supervisors: Lisa Roux, Naoya Takahashi

10/2017 – 02/2022 **PhD in Neuroscience**  
International Max Planck Research School for Neurosciences (Germany)  
Thesis: How nonlinear processing shapes natural stimulus encoding in the retina  
Supervisor: Tim Gollisch / Defense date: 23/02/2022  
Grade: *summa cum laude*

10/2015 – 05/2017 **Master in Neuroscience**  
International Max Planck Research School for Neurosciences (Germany)  
Thesis: Spatial integration in mouse retinal ganglion cells  
Supervisor: Tim Gollisch  
Grade: 1.1 (1.0 down to 5.0)

10/2011 – 08/2017 **Online coursework in Mathematics, Physics and Machine Learning**  
Selected courses: logic, calculus, linear algebra, statistics, electricity and magnetism, electrical circuits, statistical thermodynamics, artificial intelligence, computational neuroscience, deep learning  
Platforms: Coursera, edX  
Statements of accomplishment are available on request

09/2009 – 06/2015 **Doctor of Medicine**  
Aristotle University of Thessaloniki (Greece)  
Grade: 8.11/10

## EMPLOYMENT HISTORY

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02/2023 – **Postdoctoral researcher**  
Laboratory of Sami El-Boustani, University of Geneva (Switzerland)

04/2022 – 12/2022 **Postdoctoral researcher**  
Laboratory of Tim Gollisch, University Medical Center Göttingen (Germany)

05/2017 – 03/2022 **Graduate researcher**  
Laboratory of Tim Gollisch, University Medical Center Göttingen (Germany)

## PRIZES, AWARDS, AND FELLOWSHIPS

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08/2021	<b>Best poster award</b> , Retinal Circuits Symposium (online)
01/2018 – 09/2020	<b>Boehringer Ingelheim Fonds PhD fellowship</b>
11/2018	<b>Nomination for the Lindau Nobel Laureate Meeting (Physics)</b> by the Göttingen Graduate Center for Neurosciences, Biophysics, and Molecular Biosciences
10/2015 – 05/2017	<b>Study scholarship for graduates of all disciplines</b> German Academic Exchange Service (DAAD)
03/2009	<b>Bronze medal in National Mathematical Olympiad</b> Hellenic Mathematical Society

## TEACHING

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05/2019	<b>Course instructor (for graduate students)</b> Introduction to spike-train analysis with Python Göttingen Graduate Center for Neurosciences, Biophysics, and Molecular Biosciences (Germany)
03/2019	<b>Course instructor (for Master students)</b> Vision (retina, lateral geniculate nucleus, primary visual cortex) International Max Planck Research School for Neurosciences (Germany)
03/2017 – 04/2018	<b>Rotation project supervision (for Master students)</b> Two-month projects on analysis of multielectrode-array data from the retina International Max Planck Research School for Neurosciences (Germany)
05/2010	<b>Course instructor (for medical students)</b> Personal Health Record module of Medical Informatics I course Aristotle University of Thessaloniki (Greece)

## CONFERENCE CONTRIBUTIONS

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03/2022	<b>COSYNE 2022</b> , Poster (Portugal)
08/2021	<b>Retinal Circuits Symposium</b> , Poster (online)
09/2019	<b>European Retina Meeting 2019</b> , Poster (Finland)
06/2019	<b>Rank Prize Funds Symposium</b> , Talk (UK)
03/2019	<b>13<sup>th</sup> Meeting of the German Neuroscience Society</b> , Talk (Germany)
09/2018	<b>Bernstein Conference 2018</b> , Poster (Germany)
10/2017	<b>European Retina Meeting 2017</b> , Poster (France)
03/2017	<b>12<sup>th</sup> Meeting of the German Neuroscience Society</b> , Poster (Germany)
07/2012	<b>Protection and Restoration of the Environment XI</b> , Talk (Greece)

## SELECTED CONFERENCES, WORKSHOPS, AND RESEARCH TRAINING

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06/2019	<b>69th Lindau Nobel Laureate Meeting on Physics</b> (Germany)
05/2016 – 06/2016	<b>Research in theoretical neuroscience</b> with Viola Priesemann (Germany)
10/2014	<b>Workshop on Analysis and Models in Neurophysiology</b> (Germany)
09/2013	<b>11th Summer Course on Computational Neuroscience</b> (Germany)
10/2011 – 10/2013	<b>Research in neurophysiology</b> with Efstratios Kosmidis (Greece)

03/2012 – 10/2012  
10/2011 – 10/2012

**Research in participatory sensing** with Kostas Karatzas (Greece)  
**Research in medical informatics** with Panagiotis Bamidis (Greece)

## PUBLICATIONS & PREPRINTS

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**Karamanlis D**, Khani MH, Schreyer HM, Zapp SJ, Mietsch M, Gollisch T (2023).  
Natural stimuli drive concerted nonlinear responses in populations of retinal ganglion cells.  
bioRxiv, doi: 10.1101/2023.01.10.523412.

Nitsche S, Khani MH, **Karamanlis D**, Erol YC, Zapp SJ, Mietsch M, Protti DA, Rozenblit F, Gollisch T (2022).  
Diversity of Ganglion Cell Responses to Saccade-like Image Shifts in the Primate Retina.  
bioRxiv, doi: 10.1101/2022.08.12.503725.

**Karamanlis D**, Schreyer HM & Gollisch T (2022).  
Retinal encoding of natural scenes.  
Annual Review of Vision Science, 8:171-193.

Jian K Liu, **Karamanlis D** & Gollisch T (2022).  
Simple model for encoding natural images by retinal ganglion cells with nonlinear spatial integration.  
PLoS Computational Biology, 18(3):e1009925.

**Karamanlis D** & Gollisch T (2021).  
Nonlinear Spatial Integration Underlies the Diversity of Retinal Ganglion Cell Responses to Natural Images.  
Journal of Neuroscience, 41(15):3479-3498.

**Karamanlis D**, Tzitzis P, Bratsas C & Bamidis P (2012).  
Personal health records in the preclinical medical curriculum: modeling student responses in a simple educational environment utilizing Google Health.  
BMC Medical Education, 12:88.