

PERSONAL INFORMATION

Ioannis Tsakalakis +30 2810 337749 i.tsakalakis@hcmr.gr <https://scholar.google.com/citations?user=dpJvi8wAAAAJ&hl=en> Zoom Ioannis Tsakalakis

Sex Male | Nationality Greek

PERSONAL STATEMENT

Research Scientist

WORK EXPERIENCE

2023 **Research Scientist**

Hellenic Centre for Marine Research, Heraklion, Crete, Greece

- Modelling marine microbial communities

Business or sector Research Centre2019 - 2023 **Post Doctoral Scientist**

Marine Biological Laboratory, Woods Hole, MA, USA

- Modelling marine microbial communities

Business or sector Research Centre2019 - 2023 **Research affiliate**

Massachusetts Institute of Technology, Cambridge, MA, USA

- Modelling marine microbial communities

Business or sector University

EDUCATION AND TRAINING

2015 - 2019 **PhD in Natural Sciences**

Institute for Chemistry and Biology of the Marine Environment (ICBM), University of Oldenburg, Oldenburg, Lower Saxony, Germany

- Development of theoretical models for studying resource competition in marine microbes
- Teaching in the undergraduate course of Mathematical modelling
- 2-month engagement in a Mesocosm experiment in WasserCluster Lunz, Lunz am See, Austria
- PhD Thesis title: Importance of spatial and temporal variations of resources for modelling phytoplankton diversity

2015 - 2019 **MSc in Biological Oceanography**

GEOMAR institute and Kiel University, Kiel, Schleswig-Holstein, Germany

- MSc Thesis title: Daily light oscillation as a contributing factor for modelling phytoplankton biogeography and diversity

2015 - 2019 **BSc in Oceanography and Marine Sciences**

Department of Marine Sciences, University of the Aegean, Mytilene, Lesvos, Greece

- BSc Thesis title: Growth kinetics of *P. Delicatissima* on nitrate and phosphate in a batch culture: Use of a simulation model

PERSONAL SKILLS

Mother tongue(s) Greek

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
MSc and PhD studies were held in English					

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills Good communication skills through working experience in different research teams and attendance in several international conferences

Organisational / managerial skills Good leader experience on the writing of scientific papers and organization of scientific workshops

Computer skills Good knowledge on using Windows and Linux operating systems and the programming languages of Matlab, R and Fortran

Driving licence B

ADDITIONAL INFORMATION

Publications

Csaba F. Vad, Anett Hanny-Endrédi, Pavel Kratina, András Abonyi¹, Ekaterina Mironova, David S. Murray, Larysa Samchyshyna, **Ioannis Tsakalakis**, Evangelia Smeti, Sofie Spatharis, Hanrong Tan, Christian Preiler, Adam Petrusek, Mia M. Bengtsson, Robert Ptacnik. Spatial insurance against a heatwave differs between trophic levels in experimental aquatic communities. *Global Change Biology* **2023**, <https://doi.org/10.1111/gcb.16692>

Ioannis Tsakalakis, Michael J. Follows., Stephanie Dutkiewicz, Christopher L. Follett and Joseph J. Vallino. Diel light cycles affect phytoplankton competition in the global ocean. *Global Ecology and Biogeography* **2022**, 31(9): 1838 – 1849.

Associated Press with the article:

<https://beta.nsf.gov/news/new-model-sheds-light-daynight-cycle-global-ocean?sf169863480=1>

<https://twitter.com/NSF/status/1565016619662860288?cxt=HHwWgICzqdyUh7grAAAA>

<https://www.mbl.edu/news/new-model-sheds-light-daynight-cycle-global-ocean>

Joseph J. Vallino and **Ioannis Tsakalakis**. Phytoplankton Temporal Strategies Increase Entropy Production in a Marine Food Web Model. *Entropy* **2020**, 22, 1249.

<https://doi.org/10.3390/e22111249>

Ioannis Tsakalakis, Bernd Blasius and Alexey Ryabov. Resource competition and species coexistence in a two-patch metaecosystem model. *Theoretical ecology* **2020**, 13: 209 - 211.

Ioannis Tsakalakis, Markus Pahlow, Andreas Oschlies, Bernd Blasius and Alexey B. Ryabov. Diel light cycle as a key factor for modelling phytoplankton biogeography and diversity. *Ecological modelling* **2018**, 384: 241 – 248.

Stephanie D. Moorthi, Jennifer A. Schmitt, Alexey Ryabov, **Ioannis Tsakalakis**, Bernd Blasius, Lara Prella, Marc Tiedemann and Dorothee Hodapp. Unifying ecological stoichiometry and metabolic theory to predict production and trophic transfer in a marine planktonic food web. *Philosophical Transactions B*. **2016**, 371: 20150270. <http://dx.doi.org/10.1098/rstb.2015.0270>

Conference presentations

Ioannis Tsakalakis, Zhen Wu, John R. Casey, Michael J. Follows, Joseph J. Vallino. Carbon storage as a competitive trait of phytoplankton. ASLO 2023 Aquatic sciences meeting: Resilience and Recovery in Aquatic Systems, June 4 – 9, Palma de Mallorca, Spain.

Ioannis Tsakalakis, Michael J. Follows, Stephanie Dutkiewicz, Christopher L. Follett, Joseph J. Vallino. Trait adaptations to the diel light cycle affect global biogeography of phytoplankton. 5th Workshop on trait-based approaches to ocean life, January 24 – 27 2022, Knoxville, Tennessee, USA.

Ioannis Tsakalakis, Stephanie Dutkiewicz, Michael J. Follows and Joseph J. Vallino. Patterns of phytoplankton diversity driven by resource fluctuations. 4th Workshop on trait-based approaches to ocean life, August 18 – 21, 2019, Buckinghamshire, UK.

Ioannis Tsakalakis, Markus Pahlow, Andreas Oschlies, Bernd Blasius, Alexey Ryabov. Importance of daily light oscillations for modelling phytoplankton large-scale distribution and biodiversity. 3rd Workshop on trait-based approaches to ocean life, August 20 – 23 2017, Solstrand, Bergen, Norway.

Ioannis Tsakalakis, Bernd Blasius and Alexey Ryabov. Linking resource competition and ecosystem functioning in a simple meta-ecosystem. Workshop of Young Modelers in Ecology, May 1 – 5 2017, Buchenbach, Germany.

Ioannis Tsakalakis, Bernd Blasius, Alexey Ryabov. Resource dispersal promotes ecosystem functioning in a meta-ecosystem model. ASLO 2017 Aquatic sciences meeting: Mountains to the sea, February 26 – March 3 2017, Honolulu, Hawaii, USA.

Ioannis Tsakalakis, Alexey Ryabov, Bernd Blasius, Markus Pahlow, Andreas Oschlies. Diurnal light oscillations as a contributing process for niche creation and biodiversity patterns. 13th European Ecological Federation Conference – Ecology at the Interface, 21-25 September 2015, Rome, Italy.

Ioannis Tsakalakis, Markus Pahlow, Andreas Oschlies. Daily light oscillation as a contributing factor to maintain phytoplankton diversity: a modeling approach. Seventeenth workshop of the International Association of Phytoplankton taxonomy and ecology (IAP), 14-21 September 2014, Kastoria, Greece.

Ioannis Tsakalakis, Anna Lagaria, Nafsika Papageorgiou, Stella Psarra. Response to warming and acidification of phytoplankton productivity in the oligotrophic Eastern Mediterranean Sea: a mesocosm experiment. Seventeenth workshop of the International Association of Phytoplankton taxonomy and ecology (IAP), 14-21 September 2014, Kastoria, Greece.

Ioannis Tsakalakis, George Tsirtsis, George Petihakis and Sofie Spatharis. Auto-ecology study of the potential toxic microalgae *Pseudo-nitzschia delicatissima* in batch cultures: Use of a simulation model. Sixth Congress of the Hellenic Ecological Society, 4-7 October 2012, Athens, Greece.