The most important Greek Scholars in Systems Theory and Applied Mathematics according the ChatGPT and according the study of Prof. John Ioannidis.

EKBAL RASHID
Dept. of Computer Science & Engineering,
RTC Institute of Technology
Ormanjhi, Ranchi
Jharkhand, INDIA

CORNELIA AIDA BULUCEA
Faculty of Electrical Engineering
University of Craiova
ROMANIA

KLIMIS NTALIANIS
University of West Attica, Egaleo,
Athens, GREECE

DIMITRIS KAZAKOS
Institute of Electrical and Electronics Engineers and
Professor of Mathematics in Texas Southern University, Texas, USA

GIANFRANCO MINATI
Italian Systems Society http://www.airs.it
Via Pellegrino Rossi, 42
ITALY

Abstract: - In this article we present the 30 most important Greek scholars that have made notable strides in systems theory and applied mathematics, contributing to areas like control theory, optimization, dynamic systems, and more. This is a list of some of the most influential Greek scholars in these fields: These scholars highlight Greece's rich intellectual legacy in systems theory and applied mathematics, bridging theory with applications in engineering, economics, biology, and technology. The list was produced by ChatGPT. According to the Study of Professor John Ioannidis: Matheos Falagas, Christodoulos Stefanadis, Dimitris Tousoulis, Nikos Mastorakis, Merkouri Kanatzidis, Dimitris Michailidis, Athanasios Vasilakos are considered the seven Greek researchers among the over-productive ones in the world.

Key-Words: - Systems Theory, Science in Greece, Important Greek Scholars

Received: April 4, 2024. Revised: August 5, 2024. Accepted: September 11, 2024. Published: October 30, 2024.

1 Introduction

The purpose of this article is to present the most important 30 Greek scholars that have made substantial contributions to Systems Theory, particularly in control systems, dynamic systems, cybernetics, and applied mathematics. Here's a list of 30 influential Greek scholars in this field, spanning classic to contemporary figures. The list was produced by ChatGPT.

2 Thirty influential Greek scholars in this field, spanning classic to contemporary figures:

Greek scholars have made substantial contributions to Systems Theory, particularly in control systems, dynamic systems, cybernetics, and applied mathematics. Here's a list of 30 influential Greek scholars in this field, spanning classic to contemporary figures:

1. Christos Papadimitriou

- Renowned for his work in Algorithms, computational complexity, and theoretical computer science

2. John Tsitsiklis

- Known for contributions in dynamic programming and stochastic systems, Tsitsiklis has also worked on optimization and large-scale systems.

3. Anthony Manikas

- Specialist in nonlinear control systems, robotics, and process control.

4. Nikolaos P. Papanikolopoulos

- His research in robotics, sensor-based control, and vision systems has influenced various applications in intelligent systems.

5. Vassilis Kostakis

- A leader in the commons-based peer production and digital economics, he has applied systems theory concepts to socio-economic systems.

6. Evangelos Eleftheriou

- Known for information storage systems, particularly data reliability and error correction within systems.

7. George Stamatis

- Worked on stability and control in dynamic systems with applications to both continuous and discrete systems.

8. Yannis Papageorgiou

- His research focuses on predictive control and optimization in manufacturing systems.

9. Manolis D. Dendrinos

- Applied systems theory in spatial dynamics and urban development models.

10. Petros Ioannou

- Renowned for his work in adaptive control and robust control, Ioannou has pioneered many areas in control theory.

11. Sophia Yaliraki

- Noted for her work in network theory, particularly applications in molecular systems and biophysics.

12. Nikos Mamoulis

- His work focuses on big data and spatial data systems, applying systems theory to data management.

13. Michael G. Lagoudakis

- Known for his work in reinforcement learning, dynamic systems, and intelligent systems.

14. John Lygeros

- Renowned for hybrid systems, stochastic control, and applied dynamical systems theory.

15. Efstratios N. Pistikopoulos

- Expert in process systems engineering, optimization, and multi-parametric programming.

16. Petros G. Voulgaris

- Worked on distributed and networked control systems and their application in large-scale systems.

17. Nikos Mastorakis

- Renowned for his work in Multidimensional Systems, Systems Theory and Computational Methods in Engineering.

18. Constantine D. Spyrou

- Focuses on decision support systems and complex system modeling.

19. Nikitas A. Assimakopoulos

- Known for contributions to forecasting methods and complex systems.

20. Dimitris Bertsimas

- Although primarily an optimization specialist, his work in stochastic systems links closely with systems theory.

21. Markos Papageorgiou

- Made significant contributions in traffic flow theory and control, using systems theory approaches.

22. Nikolaos G. Papadopoulos

- Known for work in chaotic systems and control theory, especially applied to engineering.

23. George H. Georgiou

- Contributed to mathematical systems theory and the modeling of physical systems.

24. Kostas E. Parsopoulos

- His research in evolutionary algorithms and optimization links to systems theory applications.

25. Theodoros Pavlidis

- Known for pattern recognition and image analysis, applying systems concepts to data interpretation.

26. John N. Tsitsas

- Research interests include wave propagation in complex media, connecting systems theory with physical models.

27. Michael T. Tsatsomeros

- Specialized in matrix theory and systems theory with applications in control.

28. Nikolaos G. Bourbakis

- Known for his work in intelligent systems and biomedical informatics.

29. Panayiotis Tsakyridis

- Researches stochastic and dynamic systems, applying systems theory to economics.

30. Demetrios Serpanos

- Works on networked systems, embedded systems, and applications of systems theory in cybersecurity.

These scholars represent only a portion of Greece's contributions to systems theory, with many working across interdisciplinary fields that integrate systems approaches in engineering, economics, and beyond.

3 Seven Greek researchers among the over-productive ones in the world

Matheos Falagas, Christodoulos Stefanadis, Dimitris Tousoulis, Nikos Mastorakis, Merkouri Kanatzidis, Dimitris Michailidis, Athanasios Vasilakos: Seven Greek researchers among the over-productive ones in the world
According [1] and [2], and according to the most established international criteria, the so-called "Vancouver criteria" set out in 1988, a researcher to qualify for a scientific publication must meet at the same time four requirements: to have a role in designing and conducting research experiments or process the findings, have helped write or review the publication in handwriting, endorse the final results-conclusions, and assume co-responsibility for all content text.

The list of the 265 most productive (physicists are excluded) includes seven Greek scientists. These are the pathologist-infectious disease specialist Matheos Faragas, director of the Alpha Institute of Biomedical Research, the professors of cardiology at the Medical School of the University of Athens Christodoulos Stefanadis and Dimitris Tousoulis, Professor Nikos Mastorakis of the Hellenic Naval Academy and the Technical University of Sofia, Professor Merkouri Kanatzidis of the Department of Chemistry of Northwestern University of the USA, Professor Dimitris Michailidis of the UCL Medical School of London and Professor Athanasios Vasilakos of the Technical University of Lulea in Sweden, Computer Science Department. Included is also the Greek-Cypriot professor Cyprus Nikolaidis of the Medical School of King's College in London.
The 265 scientists come from 37 countries with most working in the US (50) – but not necessarily Americans – followed by Germany (28) and Japan (27). There are also many overproduction writers from Malaysia (13) and Saudi Arabia (seven), countries that give financial incentives to scientists according to the number of their publications.

The vast majority of over-productive writers (7,888 or 86%) are in the field of Physics, in particular, physical high energies and particle physics, where publications from large consortia of researchers are often made. For example, more than 1,000 scientists can participate in a CERN publication. If – due to this particularity of physics – physicists are excluded, as well as a number of Chinese and Korean names of scientists for whom there are doubts about their identity, there are 265 certified overproductive scientists for the period 2000-2016.

The researchers, led by G. Ioannidis, sent letters to overproductive scientists and asked them to explain their secret. According to the answers they gave, their overproduction is due to a combination of factors: hard work, love for research, guidance to many young researchers, management of one or more research teams, extensive collaborations with other researchers, research over not one but in many fields, availability of large infrastructures and data, personal values such as generosity and solidarity and sleep only a few hours each night.

As Mr. Ioannidis stated in ANA-MPA, "these figures are amazing. If we even counted all the press and conference announcements, there are scientists who have more than 4,000 publications and announcements and publish several hundred in a year. There are scientists who make one to three full publications a year up to 40-45, suddenly start a frantic course, reaching more than 100 complete publications per year, and now hold positions that should leave little time for research, with the administrative tasks they undertake. Some other strong ones are accelerating after their 65th birthday as writers in hundreds of work with dozens of others without a clear contribution. "

As the new study says, it has been observed that some scientists are becoming overproductive as soon as they become university lecturers or presidents of their university faculty.

Mr. Ioannidis stresses that the number of publications should not be evaluated at all as a measure of the value of a scientist. “What matters,” he says, “is the impact of scientific work. A job may be worth a thousand others. It is also important to see what each scientist has offered in a publication. If someone entered a writer because he was just a manager, this should count negatively. Especially Greek science will be able to accelerate, if we give more importance to quality than quantity and abolish the privileges of “barons”.

5 Conclusions

In this work, we presented a list from the ChatGPT of the most important Greek scientists in systems theory and applied mathematics, focusing on those whose work has had a broad impact across control theory, optimization, dynamic systems, mathematical modeling, and applications in engineering, economics, and other fields.

Several Greek scholars have made significant contributions to systems theory and applied mathematics. We presented here thirty Greek Scholars who are particularly noteworthy in these fields.

References:

[1] John P. A. Ioannidis, Seven Greek researchers among the over-productive ones in the world https://www.ellines.com/en/good-news/41299-seven-greek-researchers-among-the-over-productive-ones-in-the-world/

[2] John P. A. Ioannidis, 7 έλληνες ερευνητές στους πιο παραγωγικούς του κόσμου https://www.tovima.gr/2018/10/07/science/7-ellines-ereynites-stou-pio-paragogikous-tou-kosmou/

[3] https://en.wikipedia.org/wiki/John_Ioannidis

[4] Cornelia Aida Bulucea, Klimis Ntalianis, Lambros Ekonomou, Dimitris Kazakos, “Matheos Falagas, Christodoulos Stefanadis, Dimitris Tousoulis, Nikos Mastorakis, Merkouri Kanatzidis, Dimitris Michailidis, Athanasios Vasilakos: Seven Greek researchers among the over-productive ones in the world”, International Journal of Education and Learning Systems, Volume 8, 2023, pp. 74-76